COUNTY OF MENDOCINO
DEPARTMENT OF PLANNING AND BUILDING SERVICES
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May 7, 2020

PUBLIC NOTICE OF PENDING ACTION
STANDARD COASTAL DEVELOPMENT PERMIT

NOTICE IS HEREBY GIVEN THAT the Mendocino County Permit Administrator at its special meeting on Thursday, May 28, 2020 at 10:00 a.m. will conduct a public hearing on the following project at the time listed or as soon thereafter as the item may be heard. This meeting will be conducted virtually and not available for in person public participation (pursuant to State Executive Order N-29-20). In order to minimize the risk of exposure during this time of emergency, the public may participate digitally in meetings by sending comments to pbscommissions@mendocinocounty.org and is available for viewing on the Mendocino County YouTube page, at https://www.youtube.com/MendocinoCountyVideo.

CASE#: CDP_2019-0045
DATE FILED: 11/18/2019
OWNER/APPLICANT: LEE & SUE HERRMANN
AGENT: DEBRA LENNOX
REQUEST: Standard Coastal Development Permit to construct a single family residence with an attached garage, including a barn, two (2) water storage tanks and a storage shed. Additionally, construct a driveway, install a propane tank and generator, and establish a well and septic system on site.
ENVIRONMENTAL DETERMINATION: Categorically Exempt
LOCATION: In the Coastal Zone, 1.5± miles south of Albion center, 0.25± miles east of State Route 1 (SR 1), on the north side Navarro Ridge Road (CR 518), located at 33840 Navarro Ridge Rd., Albion, (APN: 123-320-12).
SUPERVISORIAL DISTRICT: 5
STAFF PLANNER: JESSIE WALDMAN

The staff report and notice will be available 10 days before hearing on the Department of Planning and Building Services website at: https://www.mendocinocounty.org/government/planning-building-services/meeting-agendas/coastal-permit-administrator.

Your comments regarding the above project(s) are invited. Written comments should be submitted by mail to the Department of Planning and Building Services Commission Staff, at 860 North Bush Street, Ukiah or 120 W. Fir Street, Fort Bragg, California. In order to minimize the risk of exposure during this time of emergency, the public may participate digitally in meetings by sending comments to pbscommissions@mendocinocounty.org by May 27, 2020, or orally via telecomment in lieu of personal attendance. All public comment will be made immediately available to the Coastal Permit Administrator, staff, and the general public as they are received and processed by staff, and can be viewed as attachments to this meeting agenda at https://www.mendocinocounty.org/government/planning-building-services/meeting-agendas/coastal-permit-administrator.

To submit public comments via telecomment. a request form must be received by 8:00 a.m. the morning of the meeting. The telecomment form may be found at: https://www.mendocinocounty.org/government/planning-building-services/meeting-agendas .

The decision of the Coastal Permit Administrator shall be final unless a written appeal is submitted to the Board of Supervisors with a filing fee within 10 calendar days thereafter. If appealed, the decision of the Board of Supervisors to approve the project shall be final unless appealed to the Coastal Commission in writing within 10 working days following Coastal Commission receipt of a Notice of Final Action on this project.

If you challenge the above case in court, you may be limited to raising only those issues described in this notice or that you or someone else raised at the public hearing, or in written correspondence delivered to the Coastal Permit Administrator at or prior to, the public hearing.

AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE. Mendocino County complies with ADA requirements and upon request, will attempt to reasonably accommodate individuals with disabilities by making meeting material available in appropriate alternate formats (pursuant to Government Code Section 54953.2). Anyone requiring reasonable accommodation to participate in the meeting should contact the Department of Planning and Building Services by calling (707) 234-6650 at least five days prior to the meeting.

Additional information regarding the above noted case may be obtained by calling the Planning and Building Services Department at 964-5379, Monday through Friday.

BRENT SCHULTZ, Director of Planning and Building Services

COASTAL PERMIT ADMINISTRATOR STAFF REPORT FOR STANDARD CDP

MAY 28, 2020
CDP_2019-0045

SUMMARY

OWNER/APPLICANT:	LEE & SUE HERRMANN 853 UPLAND RD EMERALD HILLS, CA 94062
AGENT:	DEBRA LENNOX PO BOX 798 MENDOCINO, CA 95460
REQUEST:	Standard Coastal Development Permit to construct a single family residence with an attached garage, including a barn, two (2) water storage tanks and a storage shed. Additionally, construct a driveway, install a propane tank and generator, and establish a well and septic system on site.
LOCATION:	In the Coastal Zone, 1.5± miles south of Albion center, 0.25± miles east of State Route 1 (SR 1), on the north side Navarro Ridge Road (CR 518), located at 33840 Navarro Ridge Rd., Albion, (APN: 123-320-12).
TOTAL ACREAGE:	5.5± Acres
GENERAL PLAN:	Rural Residential (RR5PD:R)
ZONING:	Rural Residential (RR5PD)
SUPERVISORIAL DISTRICT:	5 (Williams)
ENVIRONMENTAL DETERMINATION:	Categorically Exempt. Pursuant to Article 19, Section 15303, Class 3(a) one single family residence, or a second dwelling unit in a residential zone and Class 3(e), new construction of small structures, such as accessory (appurtenant) structures including garages, carports, patios, swimming pools, and fences.
APPEALBLE:	Yes (Highly Scenic Area)
RECOMMENDATION:	APPROVE WITH CONDITIONS
STAFF PLANNER:	JESSIE WALDMAN

BACKGROUND

PROJECT DESCRIPTION: A Standard Coastal Development Permit to develop a vacant parcel with the construction of a single family residence with an attached garage, a goat barn and pump house, including a driveway, propane tank, fencing and sidewalks, septic system, as shown on both the *Large and Detailed Site Plans.*

APPLICANT'S STATEMENT: Proposed 2,520 sq. ft. four (4) bedroom single family residence with 672 sq. ft. garage, 576 sq. ft. goat barn with 192 sq. ft. porch overhang, two (2) 3,500 gallon water storage tanks, propane tank, generator, 50 sq. ft. wood storage shed and a septic system.

RELATED APPLICATIONS ON-SITE:

- CDMS 26-2001 - Subdivided APN: 123-320-10 into APN: 123-320-12 and 123-320-13
- CDUM_10-93 - Building Envelopes for CDMS 26-2001
- A-1-MEN-03-046 and A-1-MEN-03-047 – California Coastal Commission Appeal
- TU_2002-0086 - Encroachment Permit
- BF_2004-0374 – 200 Amp Electric Hook-up
- BF_2004-0419 – 200 Amp Electric Hook-up
- Septic (ST22994) - Pending

NEIGHBORING PROPERTIES:

- APN: 123-320-11 - Fensalden Inn
- APN: 123-320-13 - CDP_2020-0014 Pending
- APN: 123-320-05 - Residential

SITE CHARACTERISTICS: The 5.5± acre subject parcel is located on the north side of Navarro Ridge Road (CR 518), 0.25± miles east of its intersection with State Route 1 (SR 1), as shown on the *Location Map*. The site is surrounded by parcels of similar size that are greater than 5 acres, but less than 10 acres, as shown on the *Adjacent Parcels Map*. To the north, west and south are developed residential and farming parcels, as shown on the *Aerial Imagery (Vicinity)* map. To the east is a vacant parcel, where a Coastal Development Permit, CDP_2020-0014, for the development of a single family residence has been applied for on March 14, 2020, with Mendocino County. The subject parcel is a vacant parcel, which was created under 2001 Minor Subdivision and Use Modification, CDMS 26-2001 and CDUM 10-93. Building envelopes for future development have been recorded, as shown on the *CDMS 26-2001 Site Map*. An encroachment accessing the subject parcel per the Mendocino County Department of Transportation (DOT) was completed in 2002, per TU_2002-0086. An existing well is located at the northwest corner of the subject parcel, as shown on the *Large Site Plan*.

SURROUNDING LAND USE AND ZONING: As listed on Table 1 below, the surrounding lands are classified and zoned Range Land (RL160) and Rural Residential (RR), where the adjacent parcels to the north, west and south are developed with residential uses, and the adjacent parcel to the east is vacant, as shown on the *Aerial Imagery (Vicinity)* and *Aerial Imagery* maps. The proposed single family residence and ancillary development is consistent with the surrounding land uses and development.

Table 1: Surrounding Land Use and Zoning

	GENERAL PLAN	ZONING	LOT SIZES	USES
NORTH	Range Land (RL160)	Range Land (RL160)	103.5± Acres	Residential/ Agriculture
EAST	Rural Residential (RR5PD)	Rural Residential (RR5-PD)	6.54± Acres	Residential
SOUTH	Rural Residential (RR5PD)	Rural Residential (RR5-PD)	6.43± Acres	Residential
WEST	Rural Residential (RR5PD)	Rural Residential (RR5-PD)	5.0± Acres	Residential

LOCAL COASTAL PROGRAM CONSISTENCY

The proposed development is consistent with the goals and policies of the Local Coastal Program, General Plan, and Zoning Code as detailed below:

Land Use: The project site is located within the boundaries of the Local Coastal Program (LCP) area and is shown on the *LCP Land Use Map 19: Navarro* map. The subject parcel is classified as Rural Residential (RR) by the Mendocino County General Plan, as shown on the *General Plan Classifications* map. The Coastal Element Chapter 2.2 Rural Residential classification states:

> *... is intended to encourage local small scale food production (farming) in areas which are not well suited for large scale commercial agriculture, defined by present or potential use, location, mini-climate, slope, exposure, etc. The Rural Residential classification is not intended to be a growth area and residences should be located as to create minimal impact on agricultural viability.*

The proposed development is consistent with allowed residential development and allowed accessory uses associated with residential development per Mendocino County Coastal Element Chapter 2.2.

Zoning: The project site is located within a Rural Residential (RR) district with a Planned Unit Development Combining (PD) district, as shown on the *Zoning Display Map*. The RR district is intended to encourage and preserve local small scale farming in the Coastal Zone on lands which are not well-suited for large scale commercial agriculture. Residential uses should be located as to create minimal impact on the agricultural viability, per Mendocino County Code (MCC) Section 20.376.005. The PD district is intended to require sensitive development of selected sites where standard residential and commercial and industrial design would be inappropriate to the unique or highly visible nature of the site, and to encourage imaginative development incorporating cluster development and the maximization and preservation of open space and views from public roads. Development on parcels entirely within areas of pygmy vegetation shall be reviewed for mitigation measures to prevent impacts to this resource consistent with all applicable policies of the land use plan and development standards of this Division, per Mendocino County Code (MCC) Section 20.428.005. A use permit is required for all development, other than a single-family residence and accessory uses listed in MCC Chapter 20.456, within a PD Combining District. The proposed development to construct a single family residence, accessory structures and ancillary development to support the single family residence may be permitted as specified by MCC Chapters 20.376, 20.428 and 20.444 and 20.532 and Division II of Title 20 of Mendocino County Codes.

The parcel's zoning designation (RR) requires a 5-acre minimum parcel size; where the established parcel is 5.5± acres size and is considered consistent to lot size requirements. The proposed project will comply with the minimum property line setback requirements for the RR District for the parcel size, which are 30 feet for each front, rear and side yard. A corridor preservation setback of 25 feet applies along Navarro Ridge Road (CR 518), resulting in a front yard setback of either 55 feet from Navarro Ridge Road (CR 518) corridor centerline or 30 feet from the property line, whichever is greater. The proposed goat barn location will be more than 70 feet from proposed dwelling location and is consistent with MCC Section 20.444.015(H), where barns shall not be less than 40 feet from any dwelling.

The subject parcel is subject to recorded building envelopes created under the 2001 Minor Subdivision and Use Modification (CDMS 26-2001 and CDUM 10-93) for future development proposals, as shown on the *CDMS 26-2001 Site Map*. As currently proposed, the single family residence and accessory structures will be located within the two (2) recorded building envelops, as shown on the *Large Site Plan* and *Detailed Site Plan*, per MCC Section 20.428.015.

The maximum building height allowed in the RR District is 28 feet above the natural grade for Highly Scenic Areas east of State Route 1 (SR 1), such as the project site. As currently proposed, the proposed development will be a maximum height of 27 feet 11 inches, as shown on the *Elevations NE and Elevations WS*. The proposed project will result in 1.5 percent of overall lot coverage and, as proposed, will not exceed the maximum allowed lot coverage of 20 percent for parcels of this size located within an

RR District. A minimum of two off-street parking spaces are required for the residential unit, where five spaces are proposed, and the site has adequate capacity for the required parking.

As currently proposed, the proposed project will conform to development standards of MCC Chapters 20.376, 20.428 and 20.444 and 20.472, 20.492 and 20.496, 20.504 and 20.532 and Division II of Title 20 of Mendocino County Code.

Visual Resources: The site is mapped as a Highly Scenic Area, as shown in the *Highly Scenic & Tree Removal Areas Map*, and the proposed development is subject to Policy 3.5-1 and 3.5-3 of the Coastal Element, which states:

> *...The scenic and visual qualities of Mendocino County coastal areas shall be considered and projected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and, where feasible, to restore and enhance visual quality in visually degraded areas...*
>
> *...Any development permitted in these areas shall provide for the protection of ocean and coastal views from public areas including highways, roads, coastal trails, vista points, beaches, parks, coastal streams, and waters used for recreational purposes...*
>
> *...Variances from this standard may be allowed for planned unit development that provides clustering and other forms of meaningful visual mitigation...*

Staff conducted a site visit on January 31, 2020 and determined the proposed development will only be visible from adjacent parcels, to the east and south, and does not impact views from State Route 1 (SR 1), or any park, beach or recreation area or surrounding public views, including Navarro Headland to the southwest and multiple public access areas located to the south of the subject parcel, including Navarro Ridge Road Inland Trail, as shown on the *LCP Land Use Map 19: Navarro.*

Section 20.504.015(C)(3) of the Coastal Zoning Code (Highly Scenic Areas) states:

> *(3) New development shall be subordinate to the natural setting and minimize reflective surfaces. In highly scenic areas, building materials including siding and roof materials shall be selected to blend in hue and brightness with their surroundings.*

Condition 9 is recommended to require an exterior finish schedule for proposed materials and colors which will be visually compatible with the character of the surrounding area consistent with Section 20.504.015(C)(3) of the Mendocino County Code. Prior to issuance of a Building Permit, the property owner shall furnish exterior finish schedule for approval from the Coastal Permit Administrator or to the satisfaction of the Director of Planning and Building Services.

Section 20.504.035 of the Coastal Zoning Code (Exterior Lighting Regulations) states:

> *(A) Essential criteria for the development of night lighting for any purpose shall take into consideration the impact of light intrusion upon the sparsely developed region of the highly scenic coastal zone.*
> *(2) Where possible, all lights, whether installed for security, safety, or landscape design purposes, shall be shielded or shall be positioned in a manner that will not shine light or allow light glare to exceed the boundaries of the parcel on which it is placed.*
> *(3) Security lighting and flood lighting for occasional and/or emergency*

use shall be permitted in all areas.

Condition 10 is recommended to require exterior lighting to be kept to the minimum necessary for safety and security purposes and to be downcast and shielded, and positioned in a manner that will not shine light or allow light glare to extend beyond the boundaries of the parcel in compliance with Section 20.504.035 of the Mendocino County Code. Prior to issuance of a Building Permit, the property owner shall furnish exterior lighting details for approval from the Coastal Permit Administrator or to the satisfaction of the Director of Planning and Building Services.

As conditioned, the proposed project will not increase view obstruction from nearby public areas and is visually compatible with the character of surrounding areas and will be consistent with MCC Chapter 20.504 regulations for parcels to be developed within Special Treatment Areas.

Hazards Management: The property is in an area of "Moderate Fire Hazard" severity rating, as shown on the *Fire Hazard Zones & Responsibility Areas* map. Fire protection services are provided by the California Department of Forestry and Fire Protection (CalFire) and the Albion Little River Fire District (ALRFD). The proposed project was referred to both fire protection agencies, where ALRFD had no response as of this date. A State Fire Safe Regulations Application Form, CalFire File Number #550-19, was issued for the project.

A standard condition requiring the applicant to secure all necessary permits for the proposed development from County, State and Federal agencies having jurisdiction ensures any fire protection policy or plan will be addressed. With the inclusion of these conditions, the proposal would be consistent with Mendocino County policies for fire protection.

Without additional conditions, the proposed project will be consistent with MCC Chapter 20.500 regulations for hazard areas, including geologic hazards (faults, bluffs, tsunami, landslides, and erosion), fire and flood hazards.

Habitats and Natural Resources: Both the Coastal Element (MCCE) and the Coastal Zoning Code (MCC) address Environmentally Sensitive Habitat Areas (ESHA). MCC states that development having the potential to impact an ESHA shall be subject to a biological survey, prepared by a qualified biologist, to determine the extent of sensitive resources, to document potential negative impacts, and to recommend appropriate mitigation measures. The site is primarily designated as barren, with no mapped riparian areas located within 200 feet the proposed development, as shown on the *LCP Habitats & Resources* and *Wetlands* maps.

A *Biological Scoping & Botanical Survey Report (Wynn, October 16, 2018)* was completed for the proposed project. The survey found one presumed riparian ESHA, a Presumed Stream ESHA, a ditch running parallel to Navarro Ridge Road (CR 518), located outside the subject parcel boundary lines, more than 200 feet south of the location of the proposed development *(Wynn, 2018, pg. 1),* and four presumed plant and animal ESHA habitats, where the survey recommends mitigation and avoidance measures for the potential impact to Special Status Birds and Amphibians and Invasive Plants *(Wynn, 2018, pg. 18-20)*. All development maintains a greater than 100-foot buffer to identified ESHA.

To prevent impact to ESHA's, **Condition 11 through Condition 14** are recommended by Staff, requiring that Best Management Practices as described in Section 6 Mitigation and Avoidance Measures of the *Biological Scoping and Botanical Survey Report (Wynn, 2018, pg. 18-20)* are followed to prevent disturbance to all ESHA's, during construction of the proposed project.

The proposed project was referred to California Department of Fish and Wildlife (CDFW) and California Native Plant Society (CNPS), where CNPS had no comment and CDFW provided no further recommendations for the proposed project.

As conditioned, Staff finds the proposed project will not significantly impact sensitive habitats or resources and is consistent with MCC Chapter 20.496 regulations.

Grading, Erosion, and Run Off: The area of the proposed single family residence, accessory structures

and ancillary development is relatively flat with an upwards slope towards the north, towards the subject parcel from Navarro Ridge Road (CR 518), as shown on the *Topographic Map*. Grading will be required to accommodate the proposed development. As proposed, grading will occur at the time of construction of the proposed single family residence, accessory structures, and the installation of the proposed septage and leach field and connection to utilities, including water and electricity. Also included within the proposed project, is the establishing of a gravel driveway, through an easement from the adjacent parcel to the east. As part of the 2001 Subdivision (CDMS 26-2001) an encroachment permit (TU_2002-0086) was completed for creating access to the subject parcel from Navarro Ridge Road (CR 518). If the amount of grading requires a permit from the Building Division, the Coastal Permit Administrator, or their designee, shall review and approve the grading permit to determine its consistency with MCC Chapters 20.492 and 20.500 regulations. Grading activities, including maintaining driveway and parking areas, and any work associated with an Encroachment Permit, shall comply with MCC Chapters 20.492 and 20.500 regulations.

A standard condition requiring the applicant to secure all necessary permits for the proposed development from County, State and Federal agencies having jurisdiction ensures any grading, erosion and runoff protection and hazard area policies or plans will be addressed.

Groundwater Resources: The site is designated on the Mendocino County Coastal Groundwater Study Map as a Critical Water Resource Area, as shown on the *Ground Water Resources* map. The proposed development includes the development of a septic system and connection to an existing well on site. A septic permit, (ST22994) to support the proposed development, has been applied for, and approved by the Mendocino County Division of Environmental Health (DEH).

The project was referred to DEH to review impacts to water and septic. On December 20, 2019, DEH responded with recommendations requiring that the final of a septic permit be completed prior to final of a building permit for the proposed development. The water line relocation shall be completed to adhere with DEH regulations. **Condition 15** is recommended to ensure the proposed development has septage and leach field approval and adequate water supply which will be consistent with Chapter 20.516 of the Mendocino County Code and DEH regulations. Prior to final of a Building Permit, final approval of the septic permit shall be completed, per Department of Environment Health regulations.

As conditioned, the proposed project will be consistent with the Local Coastal Program policies related to groundwater resources and DEH regulations.

Archaeological/Cultural Resources: The proposed development was referred to Northwest Information Center at Sonoma State University (SSU) and the Mendocino County Archaeological Commission (ARCH), where ARCH responded with the request to schedule for the next available hearing, depending on comments submitted by SSU. SSU responded with comments where further studies are not recommended at this time, where previous studies, S-13244 and S-25312 both identified no cultural resources. Due to SSU recommendations, the proposed project was not presented at an ARCH hearing.

Staff notes that **Condition 8** advises the property owners of a "Discovery Clause," which prescribes the procedures subsequent to the discovery of any cultural resources during construction activities associated with the project. As conditioned, Staff recommends that the project will be consistent with Mendocino County policies for the protection of the paleontological and archaeological resources.

The project was referred to three local tribes for review and comment, including Cloverdale Rancheria, Redwood Valley Rancheria, and Sherwood Valley Rancheria, and no response from the tribes has been received by Staff at this time.

Transportation/Circulation: The project would not contribute a significant amount of new traffic on local and regional roadways. The cumulative effects of traffic resulting from development on this site were considered when the Coastal Element land use designations were assigned. The proposed project was referred to Mendocino County Department of Transportation (DOT) and Cal Fire for input, where CalFire had no response as of this date. DOT responded with confirmation of completion of an encroachment permit (TU_2002-0086) from Navarro Ridge Road (CR 518) for access to the subject parcel; therefore, construction of a single family residence, accessory structures and ancillary development is not

anticipated to generate a significant amount of additional traffic beyond what presently exists.

Without additional conditions, Staff finds the project is consistent with Mendocino County policies for transportation, utilities and public services protection and will be consistent with Chapter 20.516 regulations.

Public Access: The site is located north of Navarro Ridge Road (CR 518), east of State Route (SR 1) and is designated as having existing public access along the southern parcel boundary line parallel to Navarro Ridge Road (CR 518), as shown on the *LCP Land Use Map 19: Navarro* map. The *Navarro Ridge Road Inland Trail* is an established shoreline access trail along Navarro Ridge Road (CR 518) and connects to *Navarro Headlands*, to the west, across State Route 1 (SR 1). The proposed project will not create impacts to existing or proposed public access.

Without additional conditions, Staff finds the project to be consistent with Mendocino County policies for Coastal Shoreline Access Element Chapters 3.6 and Chapter 4.9; and will be consistent with Chapter 20.528 regulations.

ENVIRONMENTAL DETERMINATION: The project meets the criteria for a Categorical Exemption from the California Environmental Quality Act (CEQA) under Article 19, Section 15303, Class 3(a) one single family residence, or a second dwelling unit in a residential zone and Class 3(e), new construction of small structures, such as accessory (appurtenant) structures including garages, carports, patios, swimming pools, and fences.

PROJECT FINDINGS AND CONDITIONS

Pursuant to the provisions of Chapter 20.532 and Chapter 20.536 of the Mendocino County Code, the Coastal Permit Administrator approves the proposed project to construct a single family residence with an attached garage, including a barn, two (2) water storage tanks and a storage shed. Additionally, construct a driveway, install a propane tank and generator, and establish a well and septic system on site and adopts the following findings and conditions.

FINDINGS:

1. Pursuant with MCC Section 20.532.095(A)(1), the proposed development is in conformity with the certified Local Coastal Program. The proposed development of a single family residence, accessory structures and ancillary development are principally permitted uses within the Rural Residential land use classification and are consistent with the intent of the Rural Residential Classification; and
2. Pursuant with MCC Section 20.532.095(A)(2), the proposed development of a single family residence, accessory structures and ancillary development would be provided with adequate utilities, access roads, drainage, and other necessary facilities. Driveway improvements are proposed under the project, connection to an existing well and a County approved septic system is to be installed; and
3. Pursuant with MCC Section 20.532.095(A)(3), the proposed development of a single family residence, accessory structures and ancillary development is consistent with the purpose and intent of the Rural Residential District, as well as all other provisions of Division II of Title 20 of the Mendocino County Code, including development criteria for Environmentally Sensitive Habitat Areas, and building height, setback from property boundary and lot coverage; and
4. Pursuant with MCC Section 20.532.095(A)(4), the proposed development, if completed in compliance with the conditions of approval, will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act. Construction of a single family residence, accessory structures and ancillary developments are categorically exempt pursuant to Article 19, Section 15303, Class 3(a) and Class 3(e), and
5. Pursuant with MCC Section 20.532.095(A)(5), the proposed development of a single family residence, accessory structures and ancillary developments will not have any adverse impact on any known archaeological or paleontological resources, and Condition 8 is in place when archaeological sites or artifacts are discovered; and
6. Pursuant with MCC Section 20.532.095(A)(6), other public services, including but not limited to, solid

waste and public roadway capacity have been considered and are adequate to serve the proposed development. Construction of a single family residence, accessory structures and ancillary developments are not anticipated to significantly affect demands on public services.

7. Pursuant with MCC Section 20.532.095(B), the development of a single family residence, accessory structures and ancillary developments will not diminish public access to Mendocino County coastal areas and conforms to the goals and policies of the Coastal Element of the General Plan. The project site is located between the first public road and the sea; and is not designated as a potential public access point.

CONDITIONS OF APPROVAL:

1. This action shall become final and effective on the 11th day following the decision unless an appeal is filed pursuant to Section 20.544.015 of the Mendocino County Code. The permit shall become effective after the ten working day appeal period to the Coastal Commission has expired and no appeal has been filed with the Coastal Commission. The permit shall expire and become null and void at the expiration of two years after the effective date except where construction and use of the property in reliance on such permit has been initiated prior to its expiration.

2. To remain valid, progress towards completion of the project must be continuous. The Applicants have sole responsibility for renewing this application before the expiration date. The County will not provide a notice prior to the expiration date.

3. The application, along with supplemental exhibits and related material, shall be considered elements of this permit, and that compliance therewith is mandatory, unless an amendment has been approved by the Coastal Permit Administrator.

4. This permit shall be subject to the securing of all necessary permits for the proposed development from County, State and Federal agencies having jurisdiction.

5. The Applicants shall secure all required permits for the proposed development of the single family residence, accessory structures and ancillary developments as required by the Building Inspection Division of the Department of Planning and Building Services, Department of Transportation and Department of Environment Health.

6. This permit shall be subject to revocation or modification upon a finding of any one or more of the following:

   a. The permit was obtained or extended by fraud.

   b. One or more of the conditions upon which the permit was granted have been violated.

   c. The use for which the permit was granted is conducted so as to be detrimental to the public health, welfare or safety, or to be a nuisance.

   d. A final judgment of a court of competent jurisdiction has declared one or more conditions to be void or ineffective, or has enjoined or otherwise prohibited the enforcement or operation of one or more such conditions.

7. This permit is issued without a legal determination having been made upon the number, size or shape of parcels encompassed within the permit described boundaries. Should, at any time, a legal determination be made that the number, size or shape of parcels within the permit described boundaries are different than that which is legally required by this permit, this permit shall become null and void.

8. In the event that additional archaeological resources are encountered during development of the property, work in the immediate vicinity of the find shall be halted until all requirements of Chapter 22.12 of the Mendocino County Code relating to archaeological discoveries have been satisfied.

9. Prior to issuance of a Building Permit, the property owner shall furnish exterior finish schedule for approval from the Coastal Permit Administrator or to the satisfaction of the Director of Planning and Building Services.

10. Prior to issuance of a Building Permit, the property owner shall furnish exterior lighting details for approval from the Coastal Permit Administrator or to the satisfaction of the Director of Planning and Building Services.

11. In order to provide for the protection of **special status birds**, as described in Section 6 Mitigation and Avoidance Measures of the *Biological Scoping and Botanical Survey Report (Wynn, 2018)* (6.1 Impact, page 18 of Wynn), the following mitigation measures are recommended to minimize impacts to presumed ESHA within the study area:

    a. Removal of vegetation removal and initiation of construction shall be done during non-breeding season (between September and January). If development is to occur during the breeding season (February to August), a pre-construction survey is recommended with 14 days of the onset of construction to ensure that no nesting birds will be disturbed during development, and

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

    c. Construction shall should occur during daylight hours to limit disturbing construction noise and minimize disturbance.

12. In order to provide for the protection of **special status amphibians,** as described in Section 6 Mitigation and Avoidance Measures of the *Biological Scoping and Botanical Survey Report (Wynn, 2018)* (6.2 Impact, page 19 of Wynn), construction shall should occur during daylight hours to limit disturbing construction noise and minimize disturbance.

13. In order to provide for the protection of **special status amphibians,** as described in Section 6 Mitigation and Avoidance Measures of the *Biological Scoping and Botanical Survey Report (Wynn, 2018)* (6.3 Impact, page 19-20 of Wynn), the following mitigation measures are recommended to minimize impacts to presumed ESHA within the study area

    a. Within 2 weeks prior to construction activities, construction personnel will be trained by a qualified biologist in the identification of **special status amphibians** that occur along the Mendocino County Coast. Workers will be trained to differentiate between special status and common species and instructed on actions and communications required to be conducted in the event that special status amphibians are observed during construction; and

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

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

    d. If a rain event occurs during the construction period, all activities shall cease for 48 hours after the rain stops. Prior to resuming construction activities, trained construction crews shall examine the site for the presence of special status amphibians. If no amphibians are observed, normal construction activities may resume. If a special status amphibian is detected, construction crews will stop all ground disturbing work and will contact the California Department of Fish and Wildlife (CDFW) or a qualified biologist. Clearance from CDFW will then be in agreement with protective measures needed for any potential special

status amphibians.

14. In order to provide for the protection of **native flora and habitat of native fauna,** as described in Section 6 Mitigation and Avoidance Measures of the *Biological Scoping and Botanical Survey Report (Wynn, 2018)* (6.4 Impact, page 20 of Wynn), landscaping shall not include any invasive plants and shall consist of native plants to California and the project site's environment.

15. Prior to final of a Building Permit, final approval of the septic permit shall be completed, per Department of Environmental Health regulations.

4-21-2020
DATE

JESSIE WALDMAN
PLANNER I

Appeal Period: 10 Days
Appeal Fee: $1,616.00

ATTACHMENTS:

A. Location Map
B. Aerial Imagery (Vicinity)
C. Aerial Imagery
D. Topographic Map
E. Large Site Plan
F. Detailed Site Plan
G. House Main Floor Plan
H. House 2nd Floor Plan
I. Elevations NE
J. Elevations WS
K. Garage Elevations
L. Goat Barn
M. Zoning Display Map
N. General Plan Classifications
O. LCP Land Use Map 19: Navarro
P. LCP Land Capabilities & Natural Hazards
Q. LCP Habitats & Resources
R. Appealable Areas
S. Adjacent Parcels
T. Fire Hazard Zones & Responsibility Areas
U. Groundwater Resources
V. Wetlands
W. Highly Scenic & Tree Removal Area
X. Biological Scoping & Botanical Survey Report (Wynn, 2018)
Y. Appendix A-E of Biological Scoping & Botanical Survey Report (Wynn, 2018)
Z. CDMS 26-2001 Site Map

SUMMARY OF REFERRAL AGENCIES COMMENTS:

Albion Little River Fire District	No Response
Archaeological Commission	Comments
Assessor's Office	No Response
Building Division (FB)	No Comment
CALFIRE (Land Use)	Comments
California Coastal Commission	No Response
California Dept. of Fish and Wildlife	Comments
California Native Plant Society (CNPS)	No Response
Cloverdale Rancheria	No Response
Department of Transportation (DOT)	Comments
Environmental Health (DEH)(FB)	Comments
Planning Division (Ukiah)	No Comment
Redwood Valley Rancheria	No Response
Sherwood Valley Rancheria	No Response
Sonoma State University	Comments

REFERENCES:

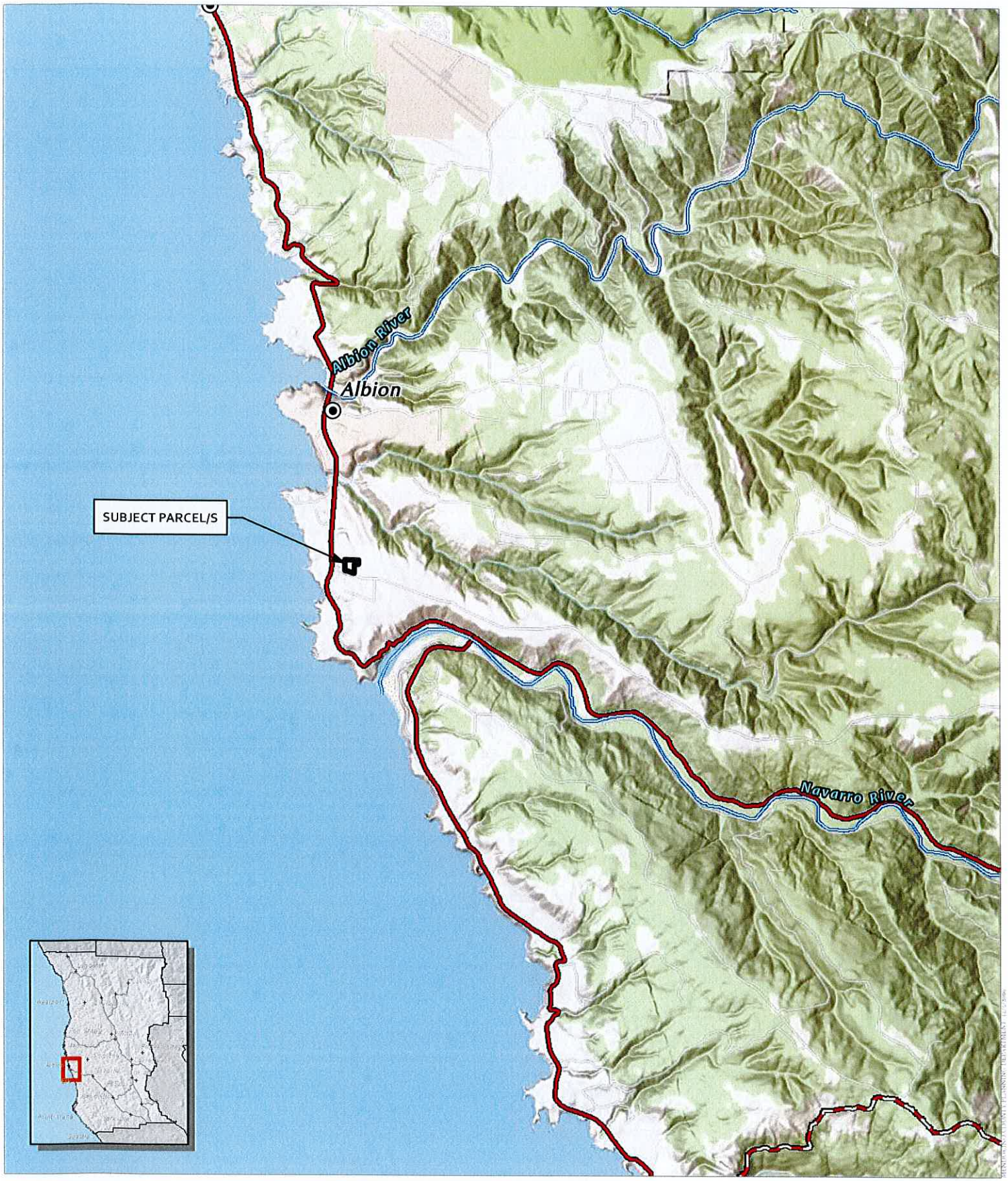
(Coastal Element) Mendocino County, Planning and Building Services, Planning Division. The County of Mendocino General Plan, Coastal Element. 1985. Accessed March 23, 2020, at: https://www.mendocinocounty.org/government/planning-building-services/plans/coastal-element

(MCC, 1991) Mendocino County Department of Planning and Building Services. October 1991. Mendocino County Zoning Code Coastal Zoning Code, Title 20 – Division II of the Mendocino County Code. Accessed March 23, 2020, at: https://library.municode.com/ca/mendocino_county/codes/code_of_ordinances?nodeId=MECOCO_TIT20ZOOR_DIVIIMECOCOZOCO

Mendocino County Department of Planning & Building Services. County of Mendocino Coastal Zone. LCP Map 19 – Navarro [map]. 1985. Accessed March 23, 2020, at: https://www.mendocinocounty.org/government/planning-building-services/county-maps/coastal-zone-local-coastal-program-lcp-maps.

Mendocino County Department of Planning & Building Services. June 2011. Fire Hazard Zones & Fire Responsibility Areas [map]. Accessed March 23, 2020, at: https://www.mendocinocounty.org/government/planning/Fire_Hazard_Severity_Map.pdf.

Mendocino County Department of Planning & Building Services. March 2015. Coastal Ground Water Resources [map]. Accessed March 23, 2020, at: http://www.co.mendocino.ca.us/planning/pdf/12x36_Coastal_Groundwater_Areas.pdf



CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

Major Towns & Places
Major Roads
Major Rivers
Highways

0 2,550 5,100 Feet
0 0.5 1 Miles
1:63,360

LOCATION MAP

ATTACHMENT A

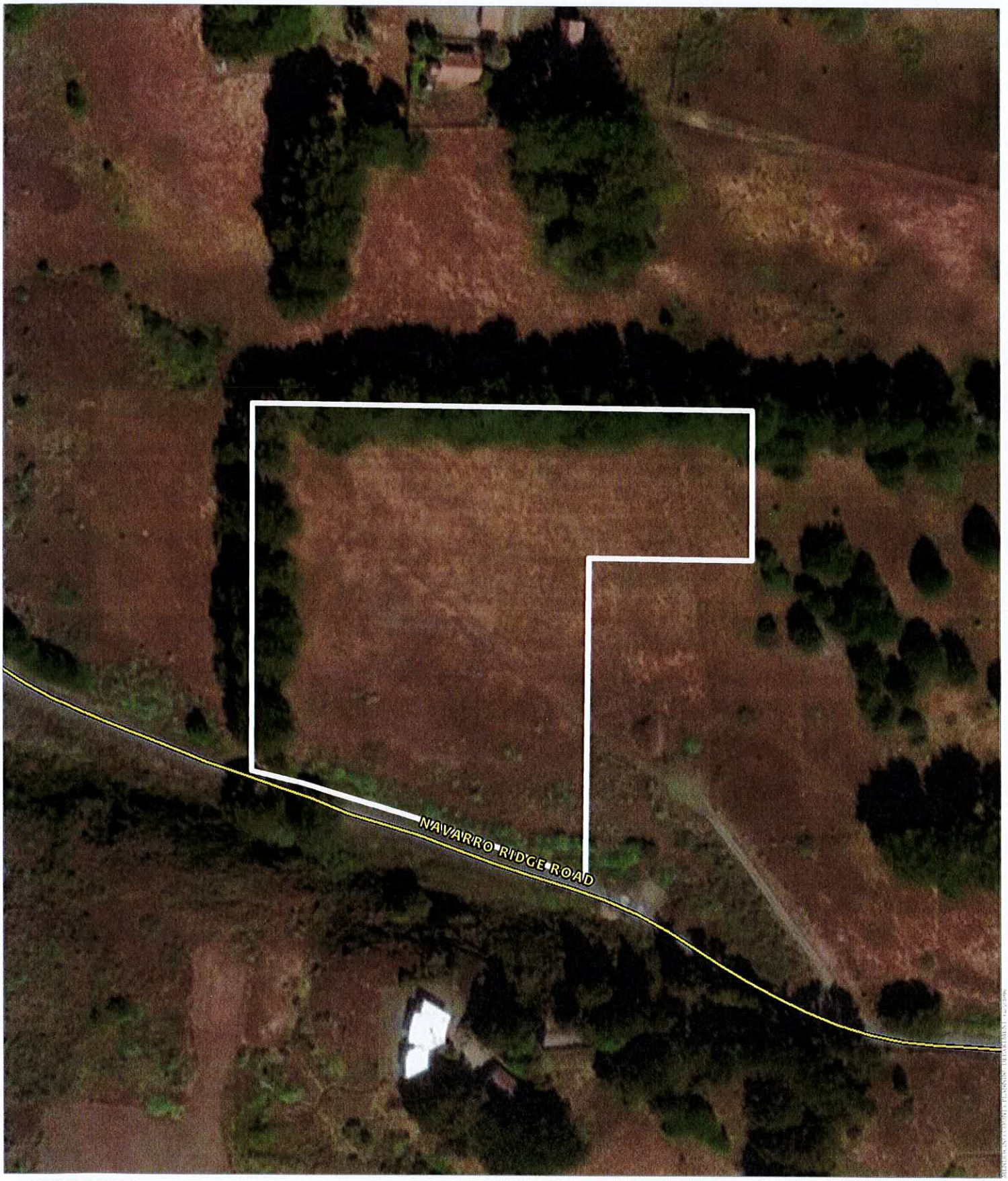
CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

Named Rivers
Public Roads
Private Roads
Driveways/Unnamed Roads

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

AERIAL IMAGERY

ATTACHMENT B

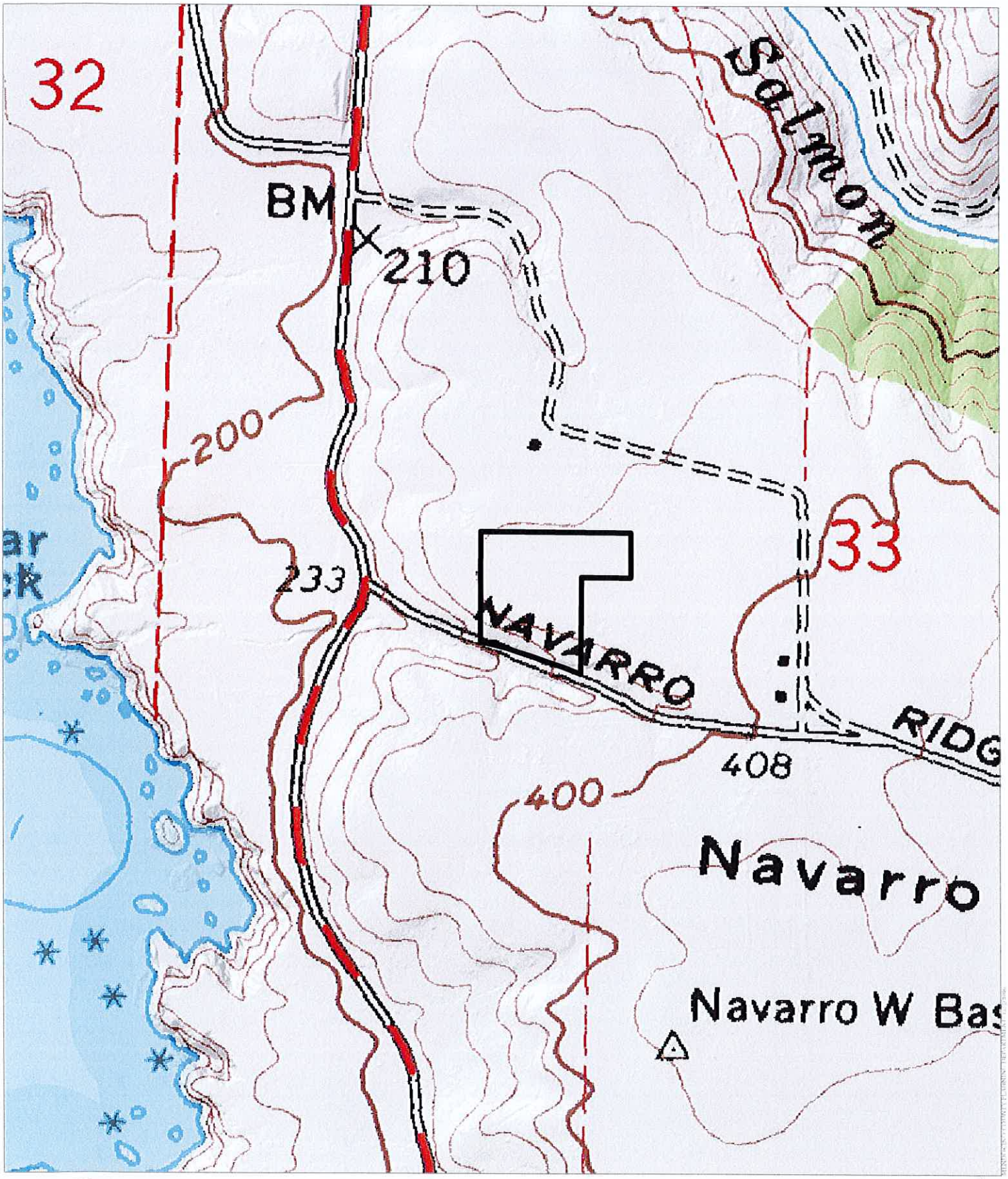


CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

Public Roads

0 75 150 Feet
0 0.0125 0.025 Miles
N W E S
1:1,800

AERIAL IMAGERY
ATTACHMENT C



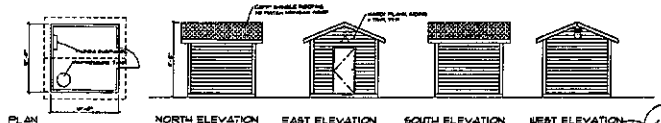
CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

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

TOPOGRAPHIC MAP
CONTOUR INTERVAL IS 40 FEET

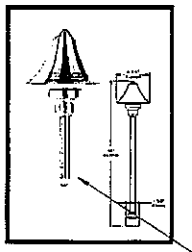
ATTACHMENT D

ATTACHMENT E



PROPOSED PUMP HOUSE

SCALE 1/8"=1'-0"

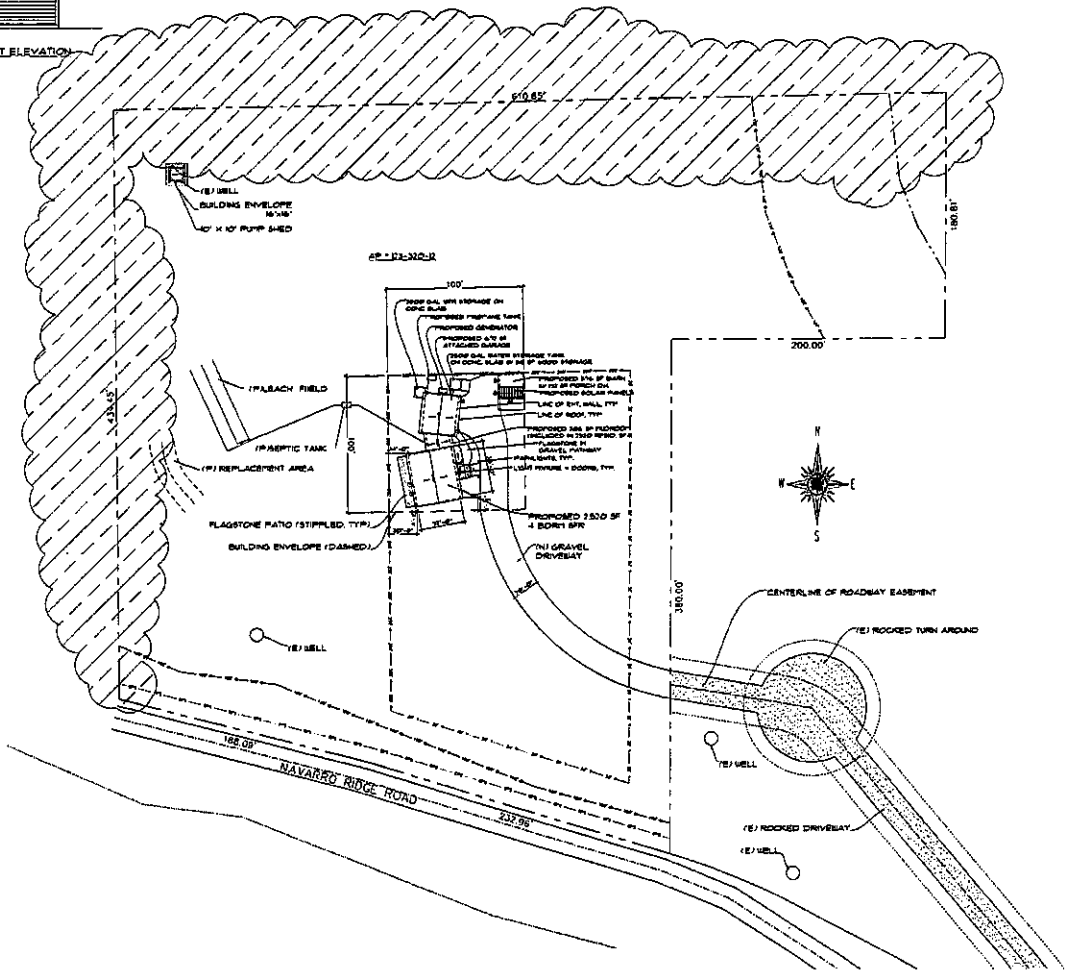


DK. BRONZE
PATH LIGHT FIXTURE (OR EQUIVALENT)

DK. BRONZE WALL MOUNTED
LIGHT FIXTURE (OR EQUIVALENT)

PROPOSED EXTERIOR LIGHT FIXTURES

LEGEND:
- STREAM
- EPHEMERAL DRAINAGE
- (E) GRAVEL DRIVEWAY
- (P) GRAVEL DRIVEWAY
- (P) WATER LINE
- (P) SEPTIC LINE
- (E) TREE COVERAGE
- 100' ESHA BUFFER
- CORRIDOR PRESERVATION SETBACK
- 30' YARD SETBACK
- 200' YARD SETBACK (AGRICULTURAL PRESERVE SETBACK)
- SHIELDED, LOW WATTAGE, DOWNCAST SCONCE
- SHIELDED, LOW WATTAGE, PATH LIGHT



NORTH

PROPOSED PLOT PLAN

SCALE 1"=40'-0"

Art & Architecture

Debra Lennox, AIA
ARCHITECT
LEED AP
PO Box 798 Mendocino, CA 95460
707-937-0270 dllennox@mcn.org
Mendocino www.dllennox.com

REVISIONS	BY

PROPOSED PLOT PLAN

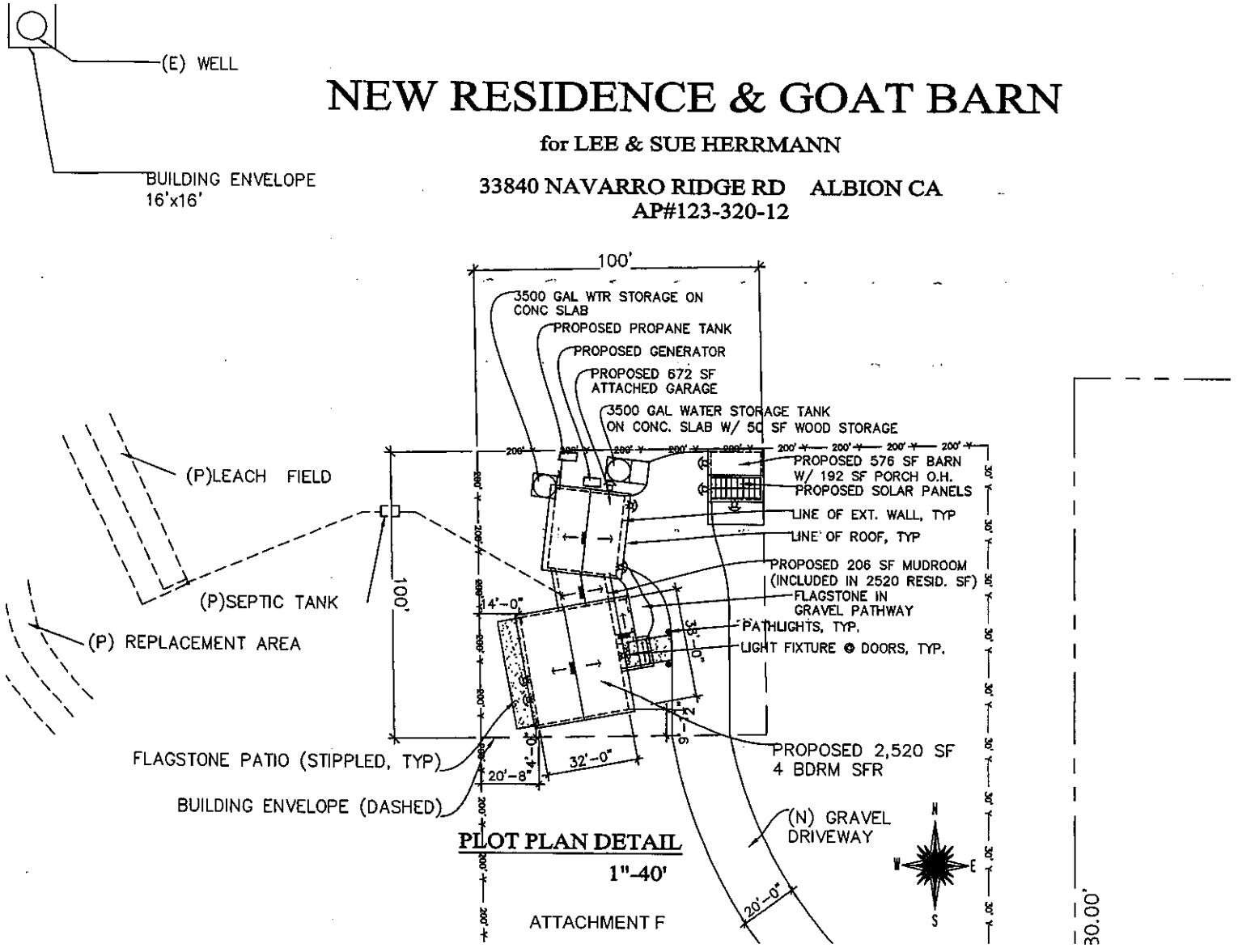
NEW RESIDENCE W/ ATTACHED GARAGE & BARN
for SUSAN & LEE HERRMANN
33840 NAVARRO RIDGE RD ALBION, CA 95410 APN 123-320-12

SCALE: AS NOTED
DRAWN: LH
FILE: HERRMANN
DATE: 12/16/20
SHEET: A1
OF SHEETS

NEW RESIDENCE & GOAT BARN

for LEE & SUE HERRMANN

33840 NAVARRO RIDGE RD ALBION CA
AP#123-320-12



PLOT PLAN DETAIL

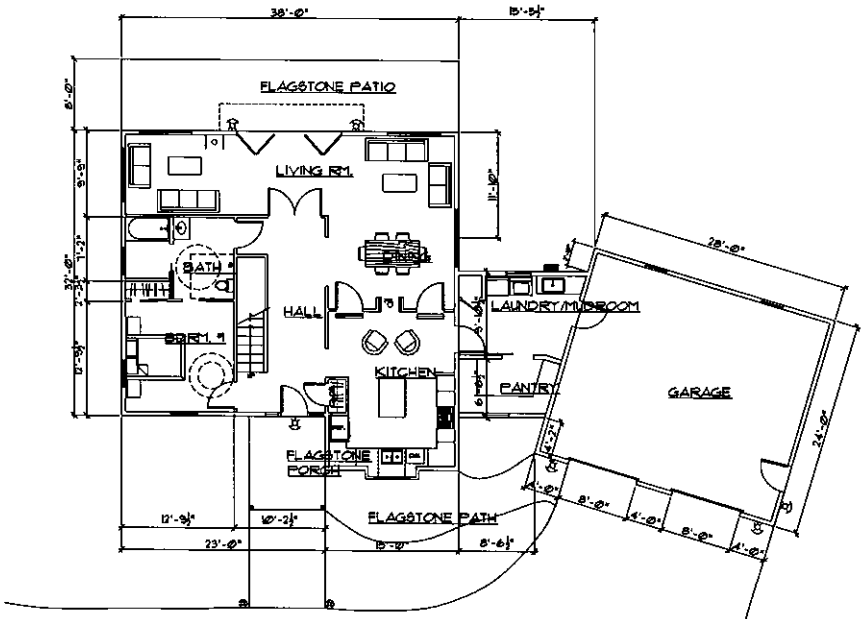
1"-40'

ATTACHMENT F

NEW RESIDENCE & GOAT BARN

for LEE & SUE HERRMANN

33840 NAVARRO RIDGE RD ALBION CA
AP#123-320-12



HERMANN FIRST FLOOR PLAN

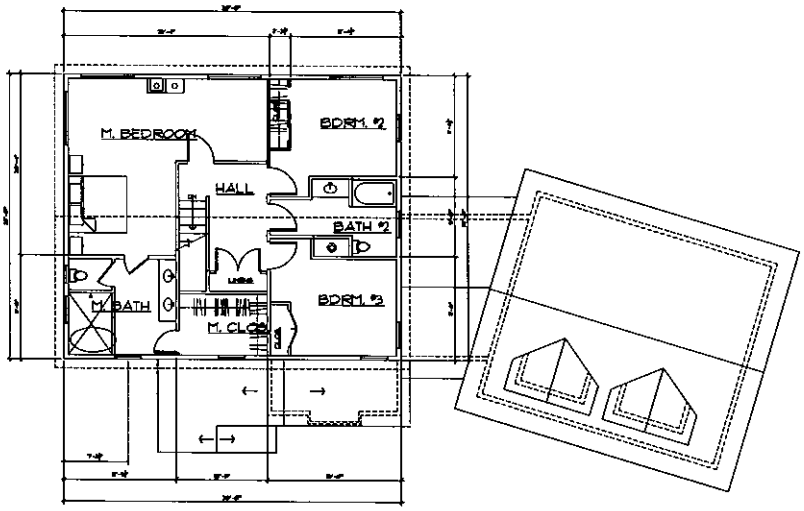
1/16" = 1'-0"

ATTACHMENT G

NEW RESIDENCE & GOAT BARN

for LEE & SUE HERRMANN

33840 NAVARRO RIDGE RD ALBION CA
AP#123-320-12

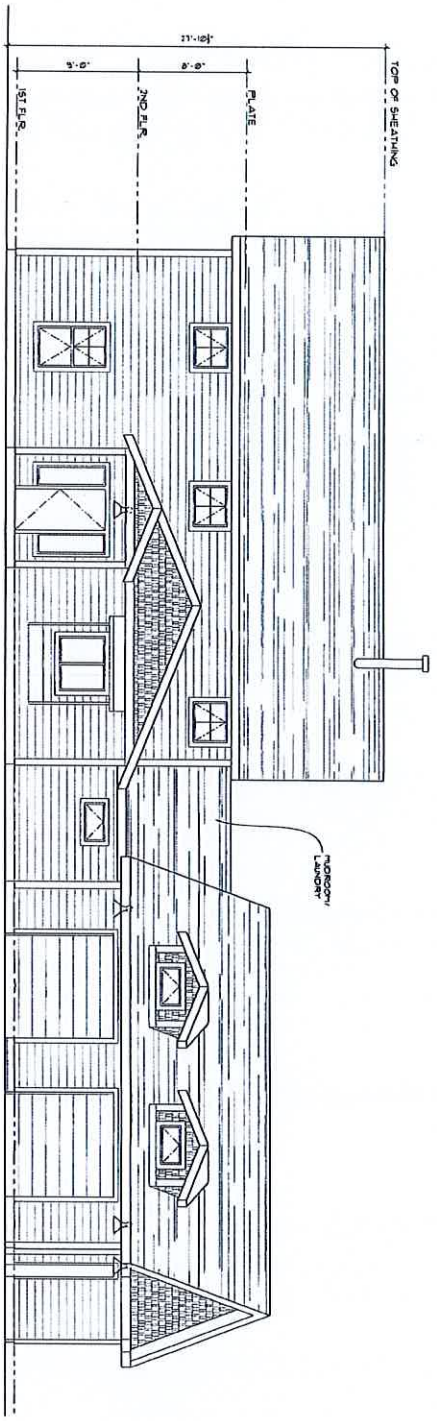


HERMANN SECOND FLOOR PLAN

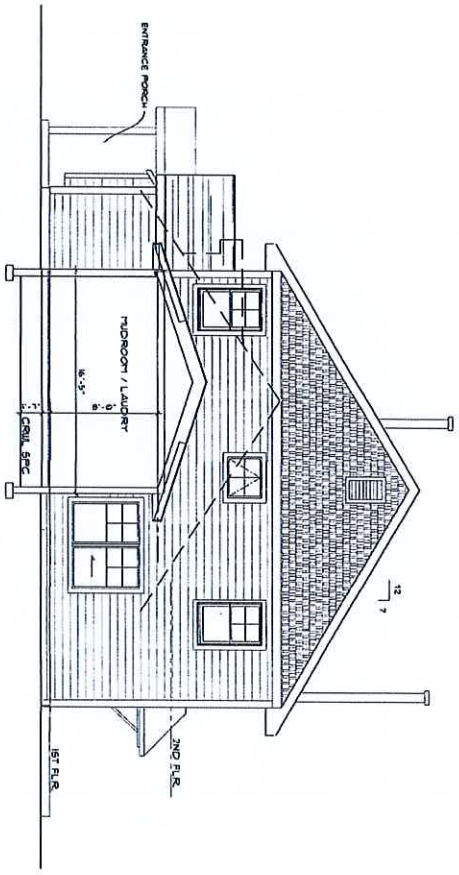
1/16" = 1'-0"

NORTH

ATTACHMENT H



EAST ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"

PROPOSED EXTERIOR ELEVATIONS

NEW RESIDENCE W/ ATTACHED GARAGE & BARN
for SUSAN & LEE HERRMANN
33840 NAVARRO RIDGE RD ALBION, CA 95410 APN123-320-12

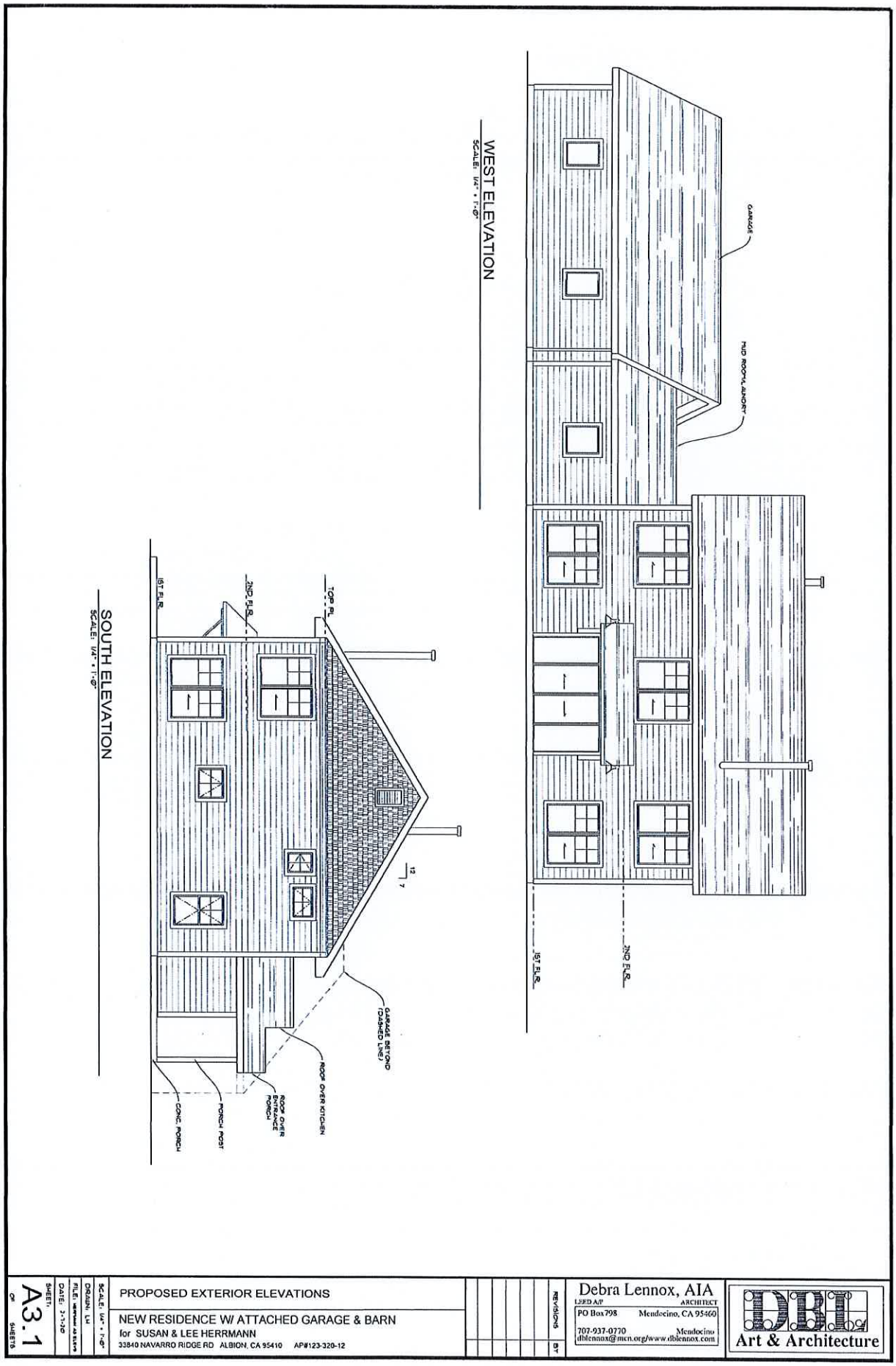
SCALE: 1/4" = 1'-0"
DRAWN: LM
FILE: HERRMANN GR BARN
DATE: 2-1-12
SHEET: A3.0
OF SHEETS

REVISIONS BY

Debra Lennox, AIA
LEED A/P ARCHITECT
PO Box 798 Mendocino, CA 95460
707-937-0770 Mendocino
dblennox@mcn.org/www.dblennox.com

DBL Art & Architecture

ATTACHMNENT I



PROPOSED EXTERIOR ELEVATIONS

NEW RESIDENCE W/ ATTACHED GARAGE & BARN
for SUSAN & LEE HERRMANN
33840 NAVARRO RIDGE RD ALBION, CA 95410 AP#123-320-12

REVISIONS BY

Debra Lennox, AIA
LEED A/P ARCHITECT
PO Box 798 Mendocino, CA 95460
707-937-0770 Mendocino
dblennox@mcn.org/www.dblennox.com

Art & Architecture

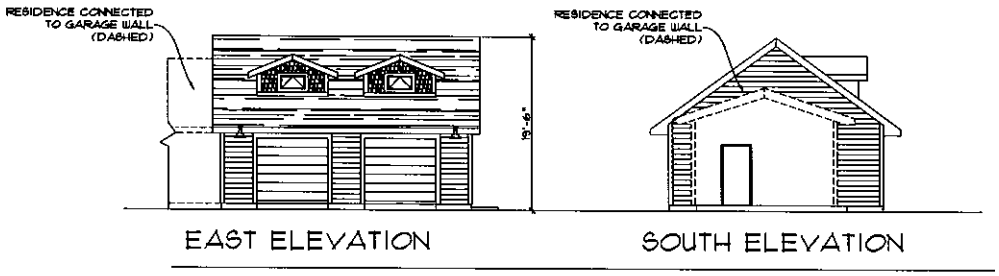
SCALE: 1/4" = 1'-0"
DRAWN: LH
FILE: HERRMANN ELEVS
DATE: 2-1-20
SHEET: A3.1
OF SHEETS

ATTACHMENT J

NEW RESIDENCE & GOAT BARN

for LEE & SUE HERRMANN

33840 NAVARRO RIDGE RD ALBION CA
AP#123-320-12



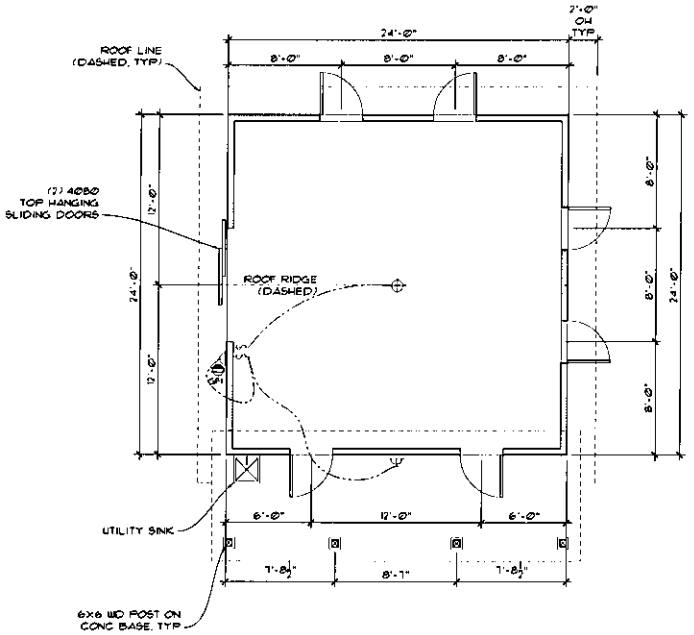
1/16" = 1'-0"

GARAGE

ATTACHMENT K

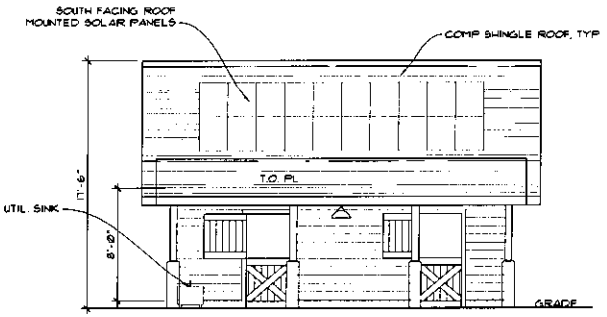
NOTES:
1. 3068 DUTCH DOORS FOR SOUTH ELEVATION.
2. 3032 HINGED WOOD WINDOWS FOR NORTH & EAST ELEVATIONS WITH SWINGS AS SHOWN ON PLAN
3. EXTERIOR WALL TO BE 2X6

ELEC. LEGEND:	
⊕	(N) CEILING LIGHT
	(N) EXT. WALL LIGHT
$	(N) SWITCH
GFI	GROUND FAULT INT.

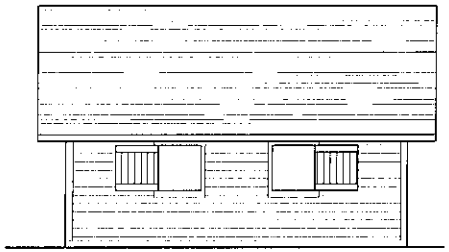


NORTH

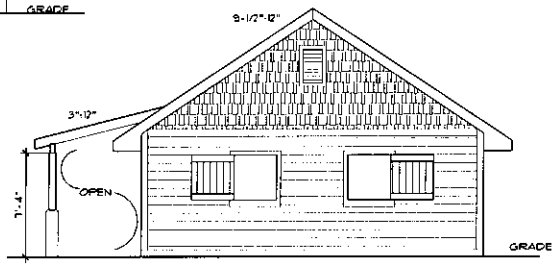
PROPOSED GOAT BARN FLOOR PLAN
SCALE 1"=4'-0"



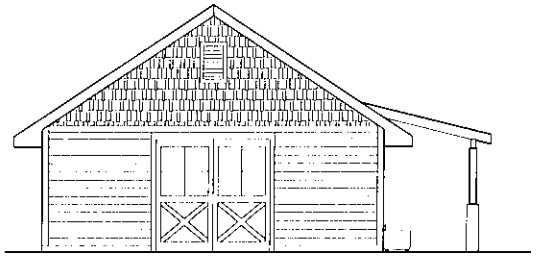
PROPOSED SOUTH ELEVATION
SCALE 1"=4'-0"



PROPOSED NORTH ELEVATION
SCALE 1"=4'-0"



PROPOSED EAST ELEVATION
SCALE 1"=4'-0"



PROPOSED WEST ELEVATION
SCALE 1"=4'-0"

DBL Art & Architecture
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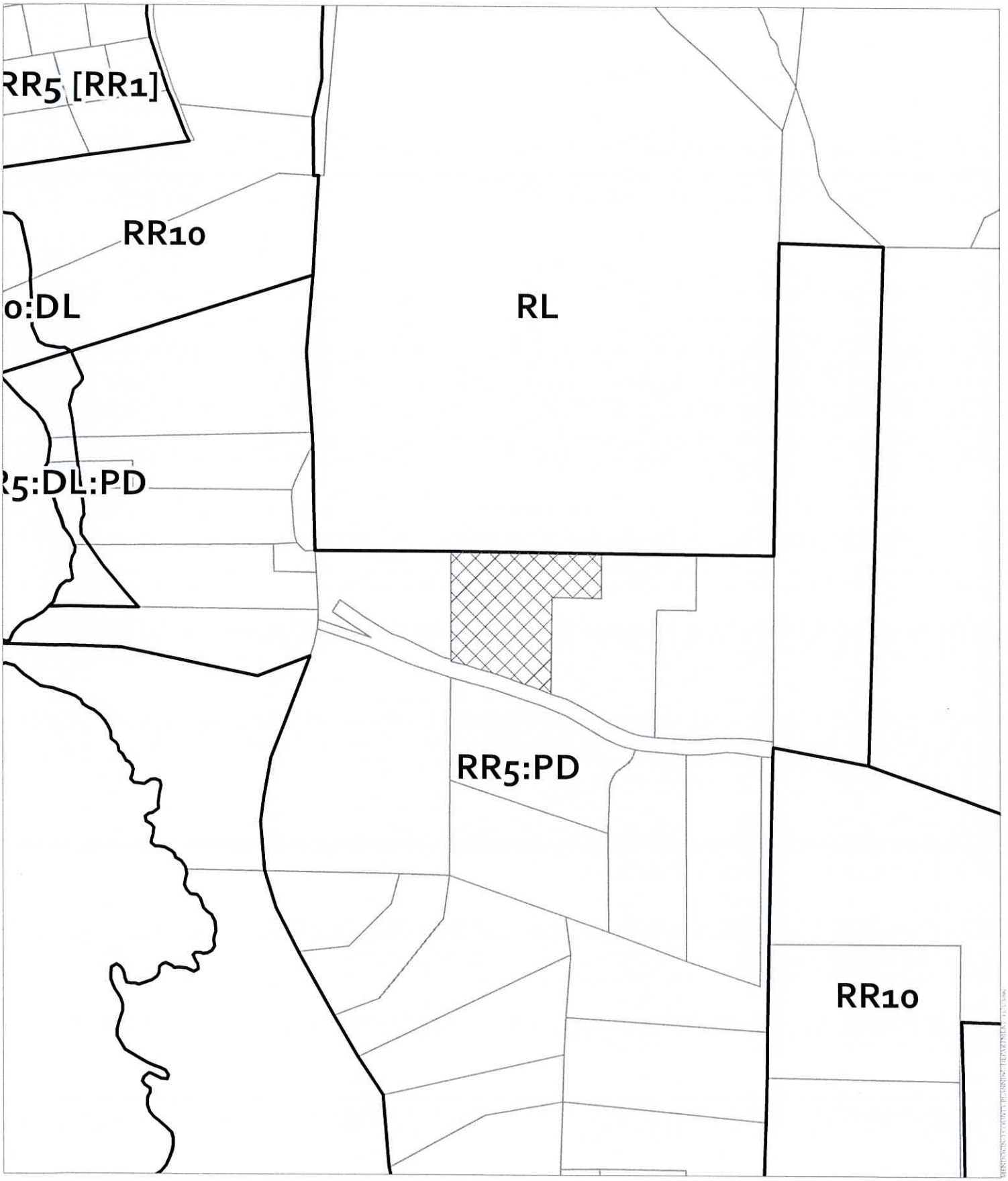
REVISIONS	BY

PROPOSED FLOOR PLAN , DOOR & WINDOW SCHEDULES

NEW RESIDENCE W/ ATTACHED GARAGE & BARN
for SUSAN & LEE HERRMANN
33849 NAVARRO RIDGE RD ALBION, CA 95410 APN 123-320-12

SCALE: AS NOTED
DRAWN: L.H
FILE:
DATE: 11/12/2018
SHEET: A4.0
OF SHEETS

ATTACHMENT L



CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

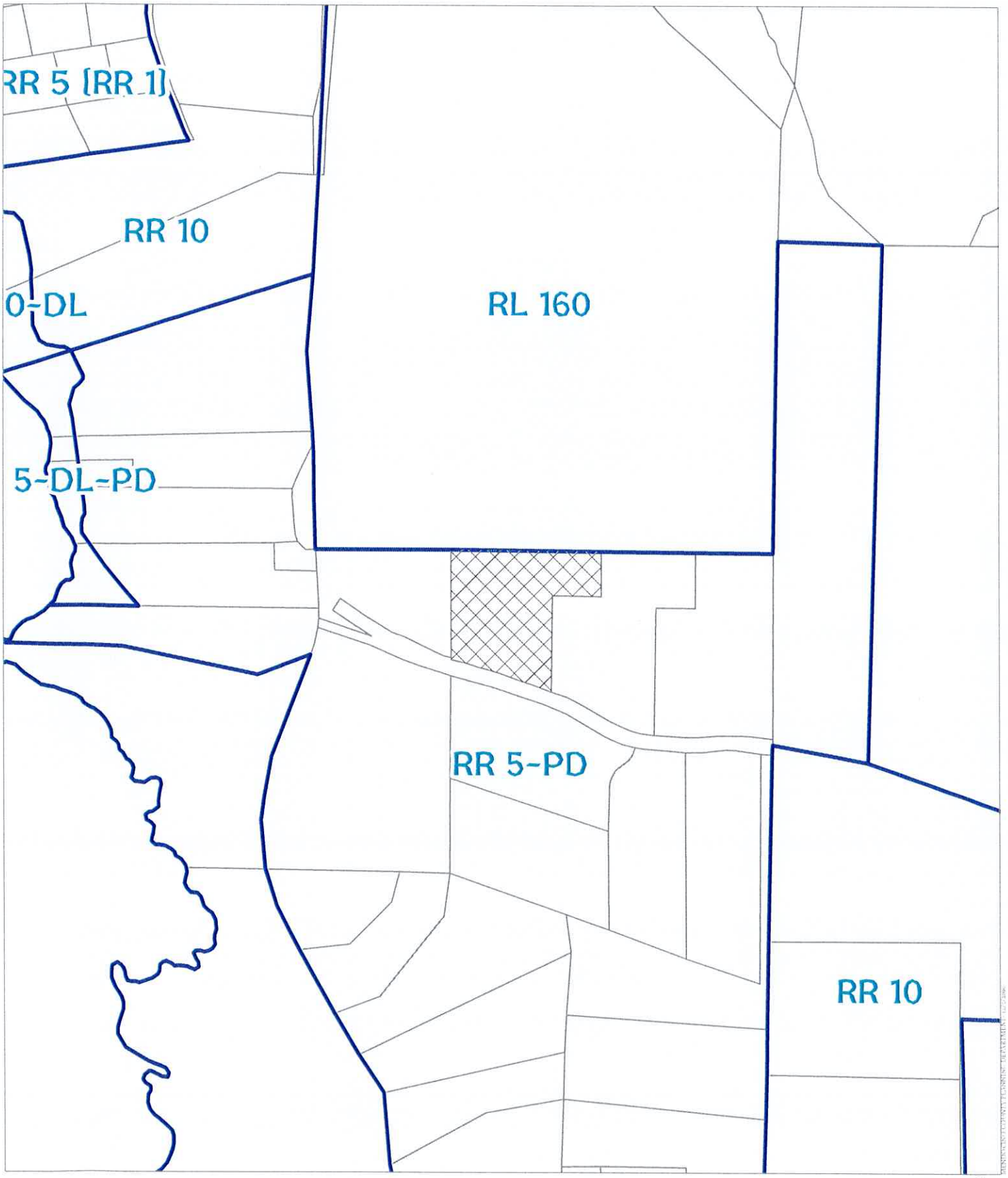
Zoning Districts

Assessors Parcels

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

ZONING DISPLAY MAP

ATTACHMENT M



CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

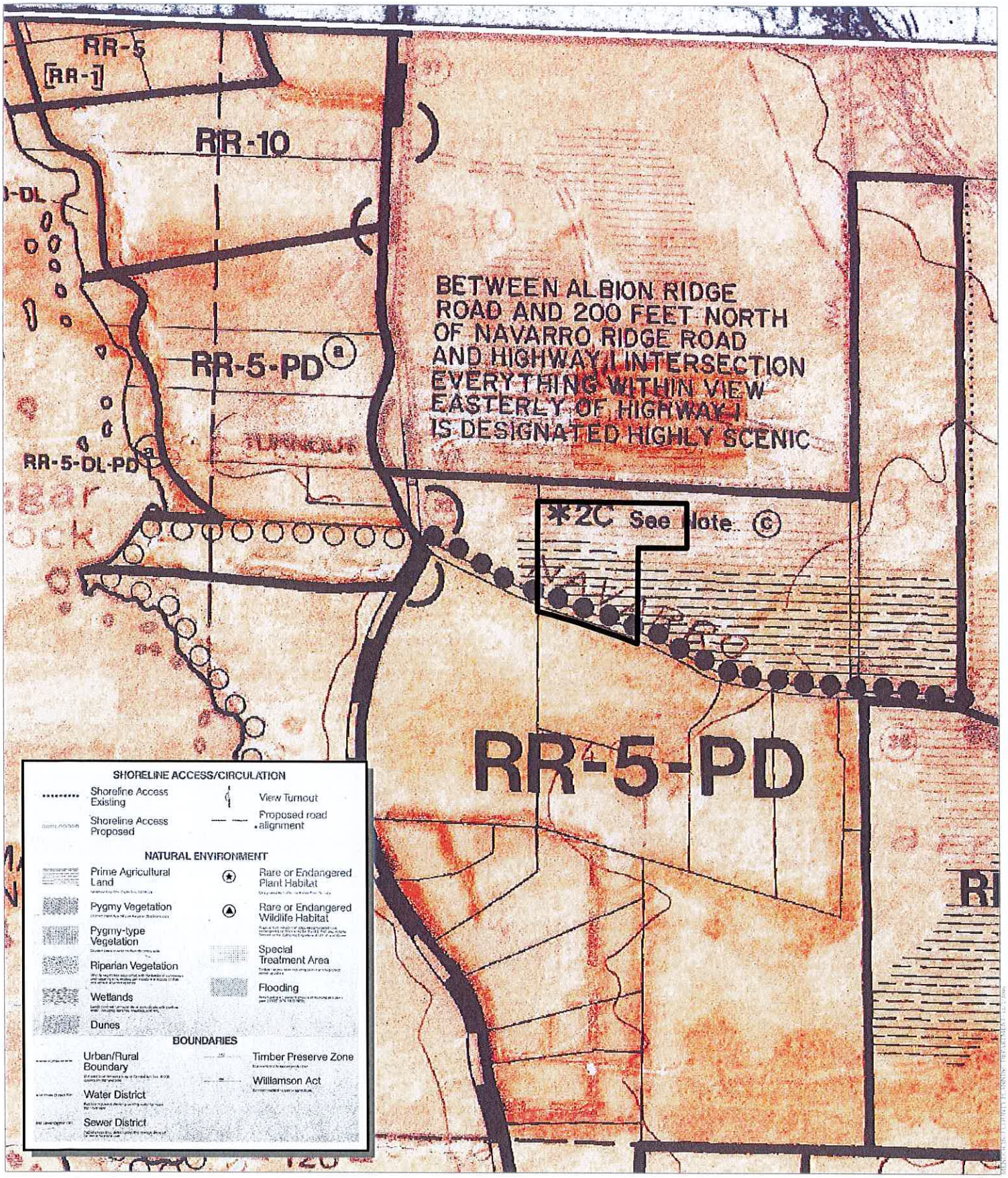
General Plan Classes

Assessors Parcels

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

GENERAL PLAN CLASSIFICATIONS

ATTACHMENT N

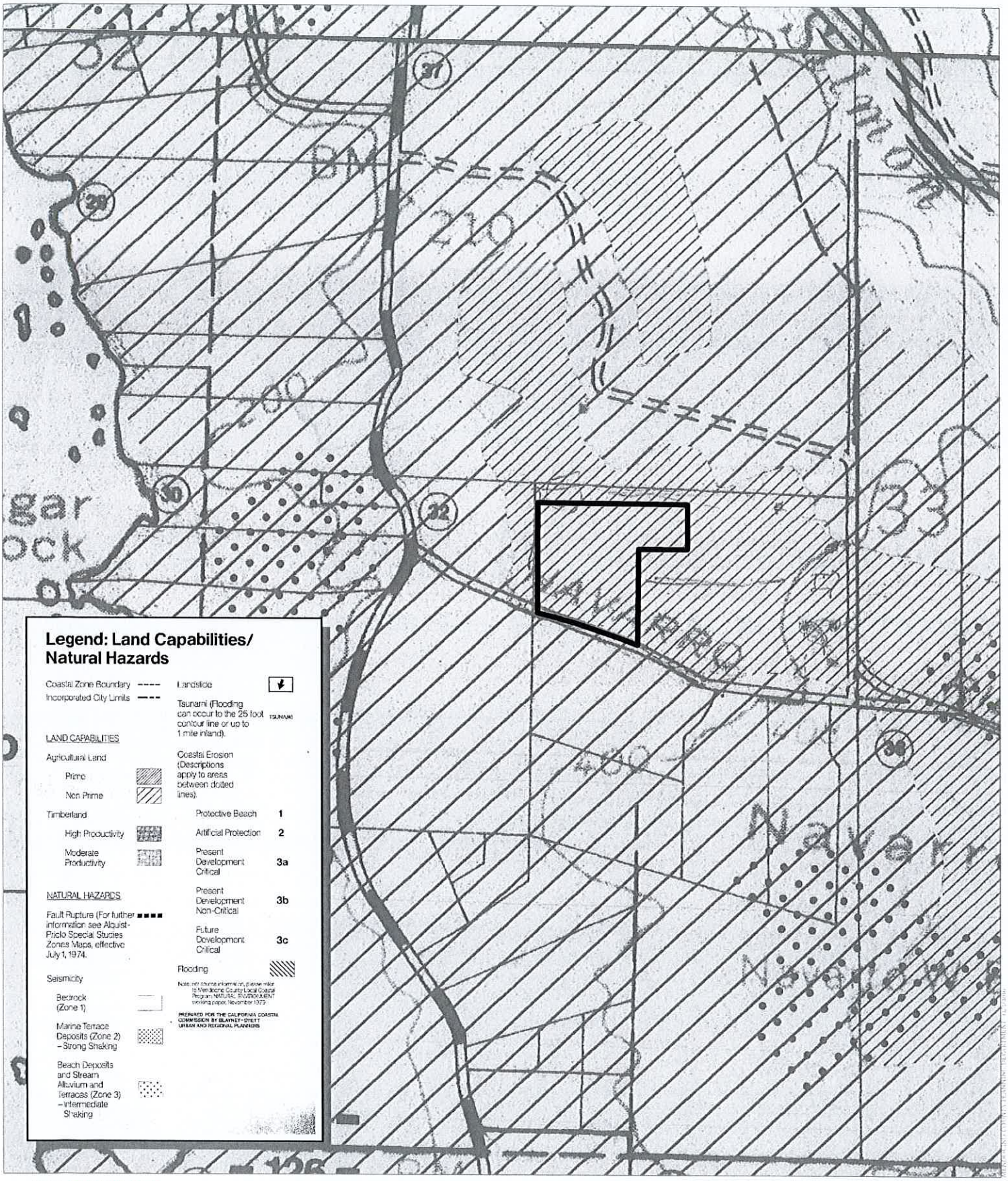


CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

LCP LAND USE MAP 19: NAVARRO

ATTACHMENT O

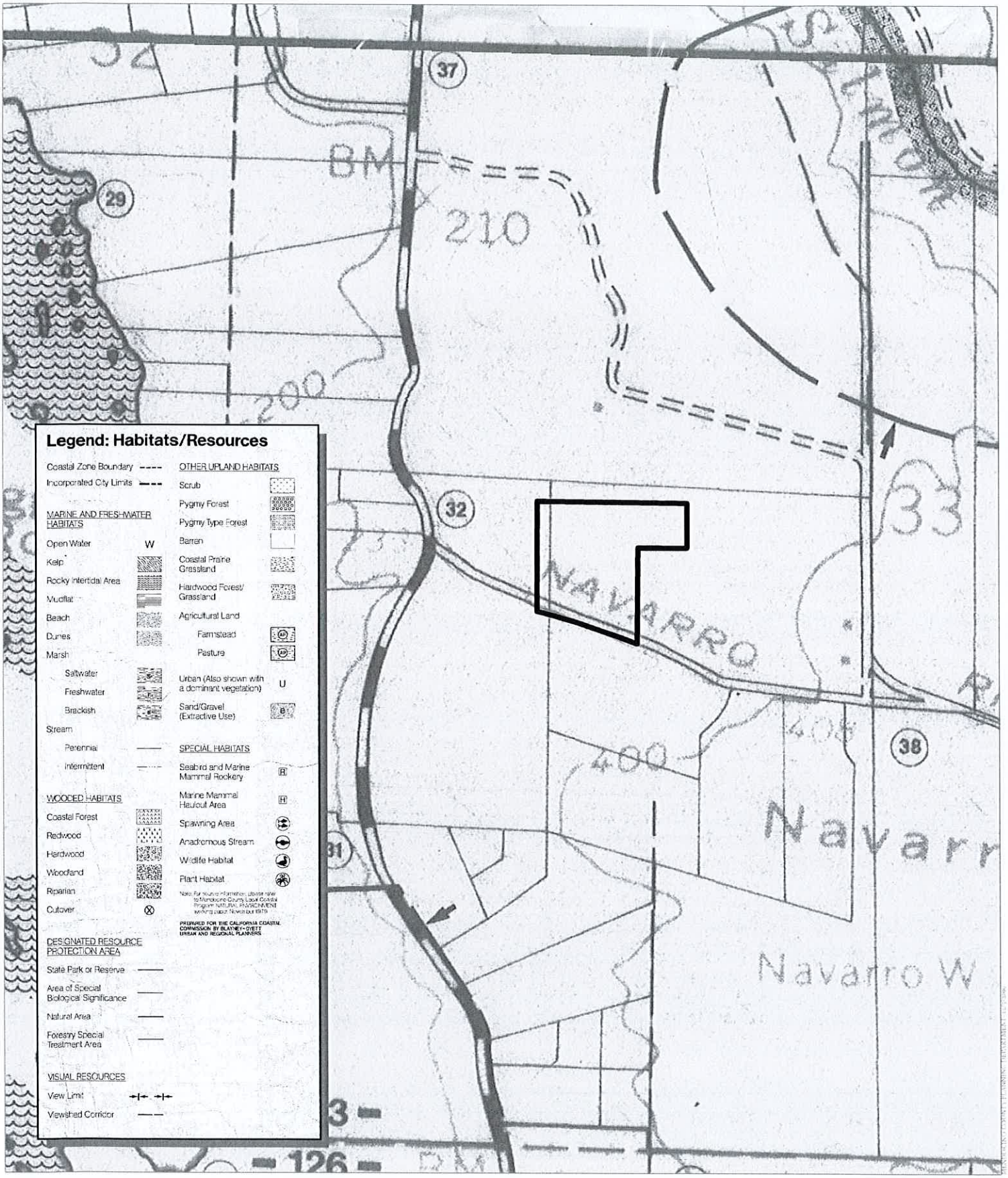


CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

LCP LAND CAPABILITIES & NATURAL HAZARDS

ATTACHMENT P

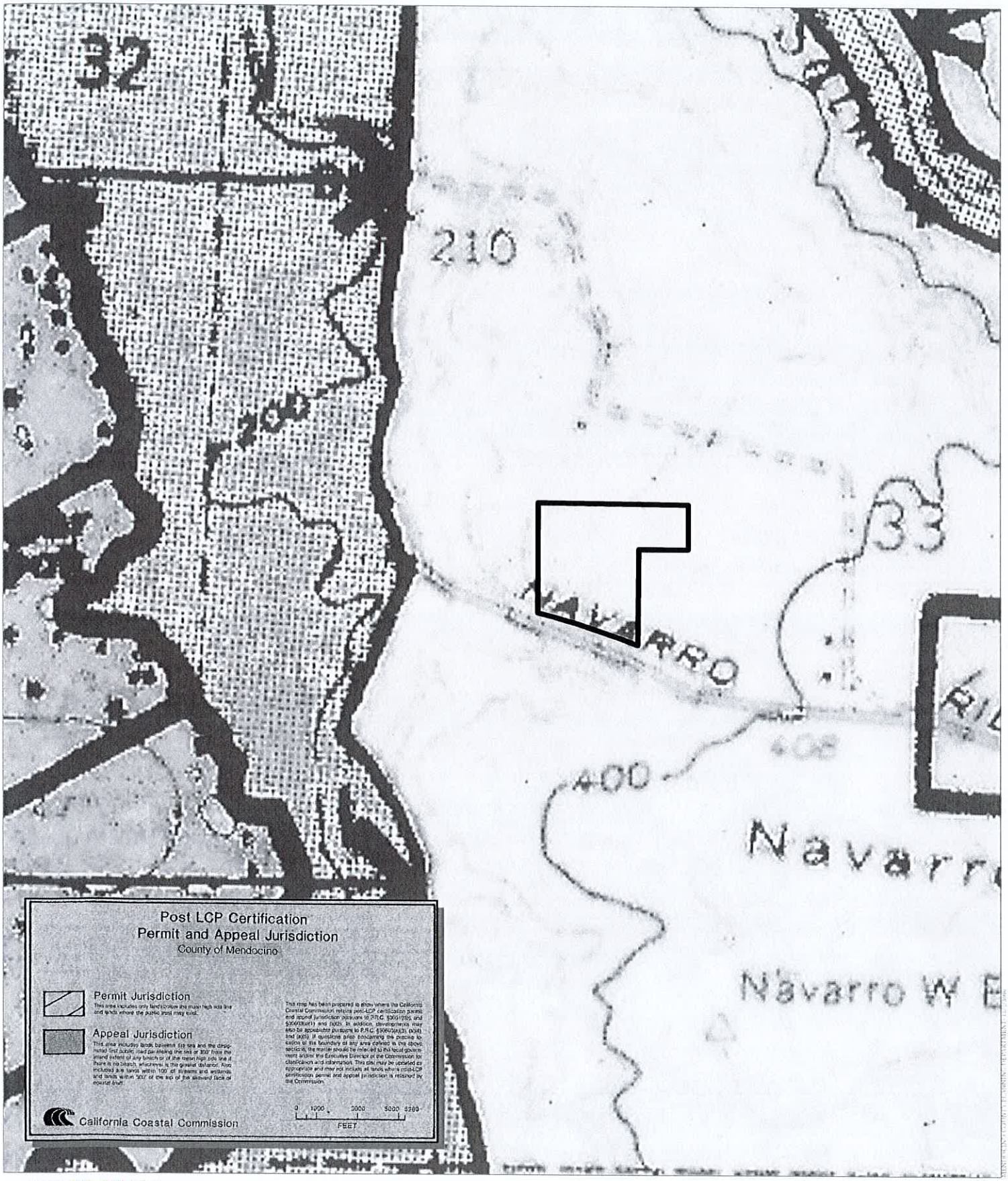


CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

LCP HABITATS & RESOURCES

ATTACHMENT Q

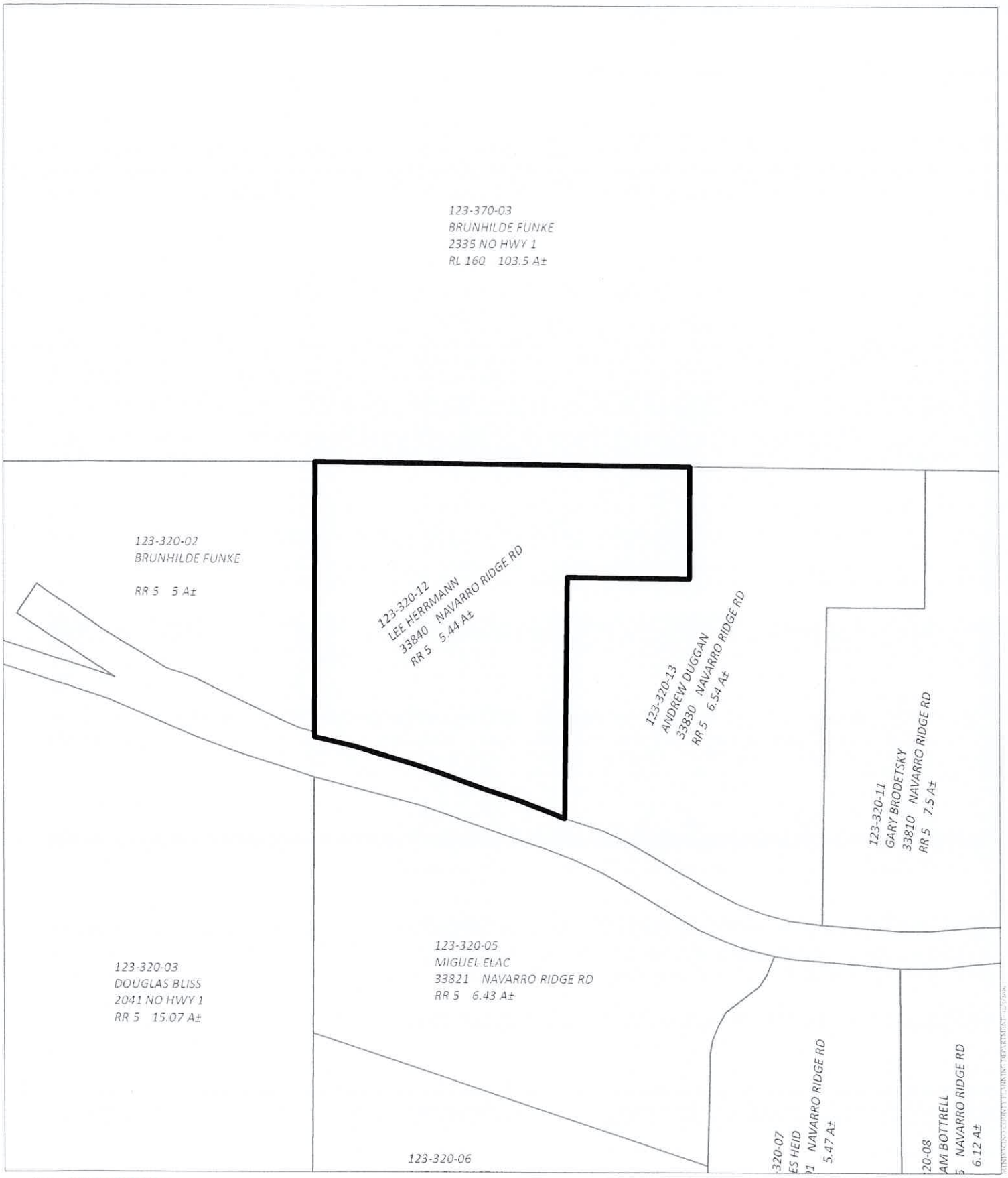


CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

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

APPEALABLE AREAS

ATTACHMENT R

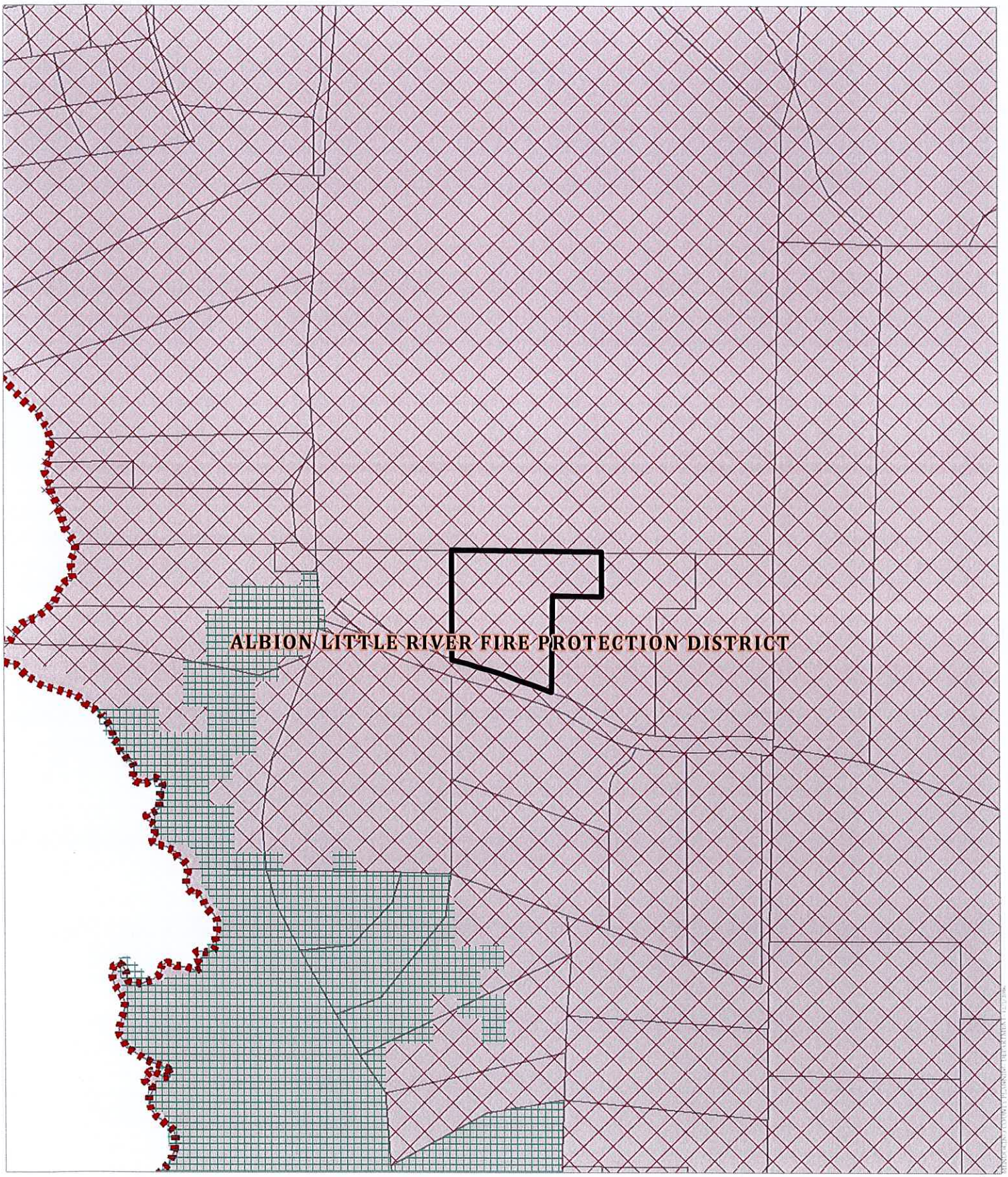


CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

Assessors Parcels

ADJACENT PARCELS

ATTACHMENT S



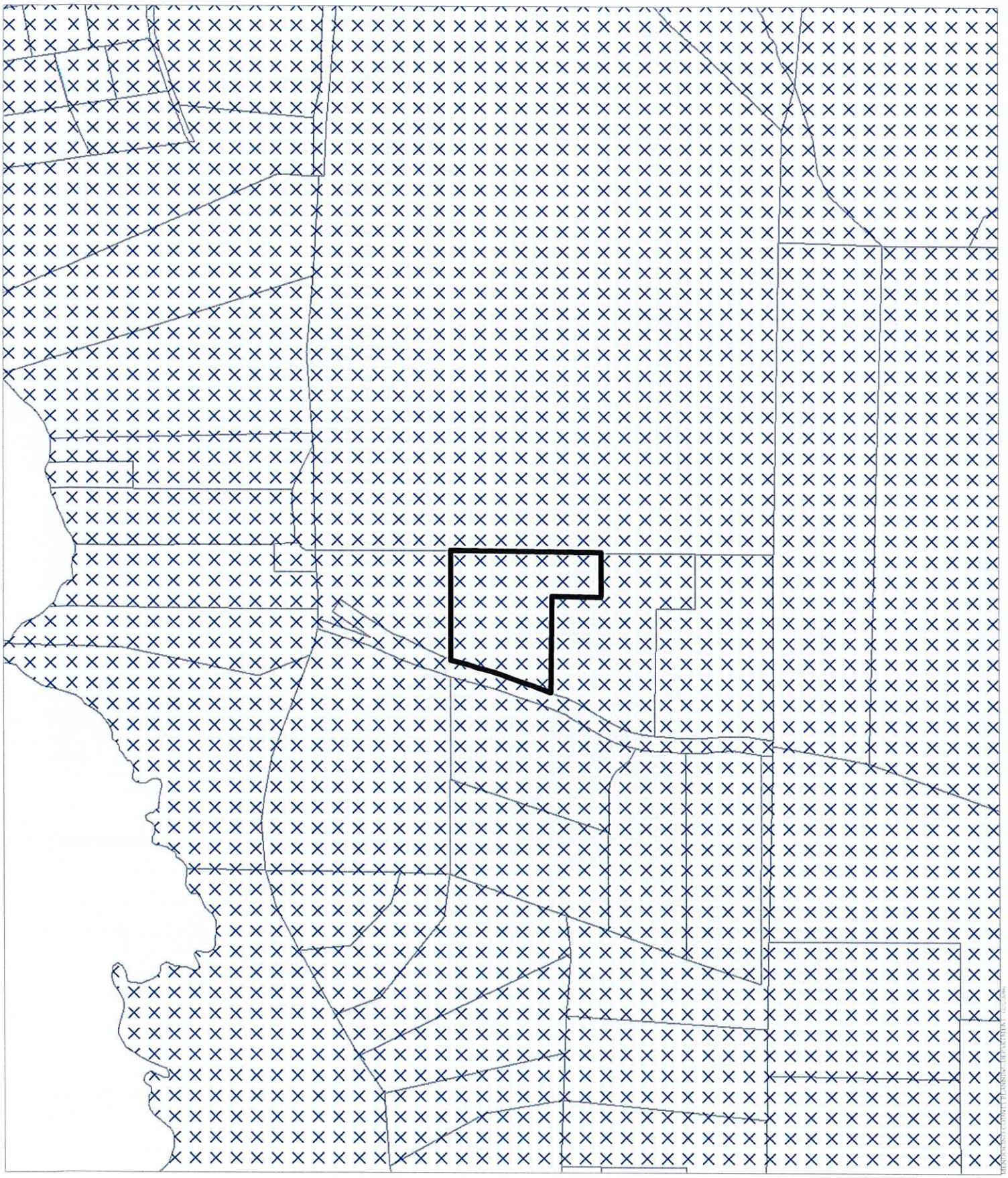
CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

High Fire Hazard
Moderate Fire Hazard
County Fire Districts
Assessors Parcels

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

FIRE HAZARD ZONES & RESPONSIBILITY AREAS
STATE RESPONSIBILITY AREA

ATTACHMENT T



CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

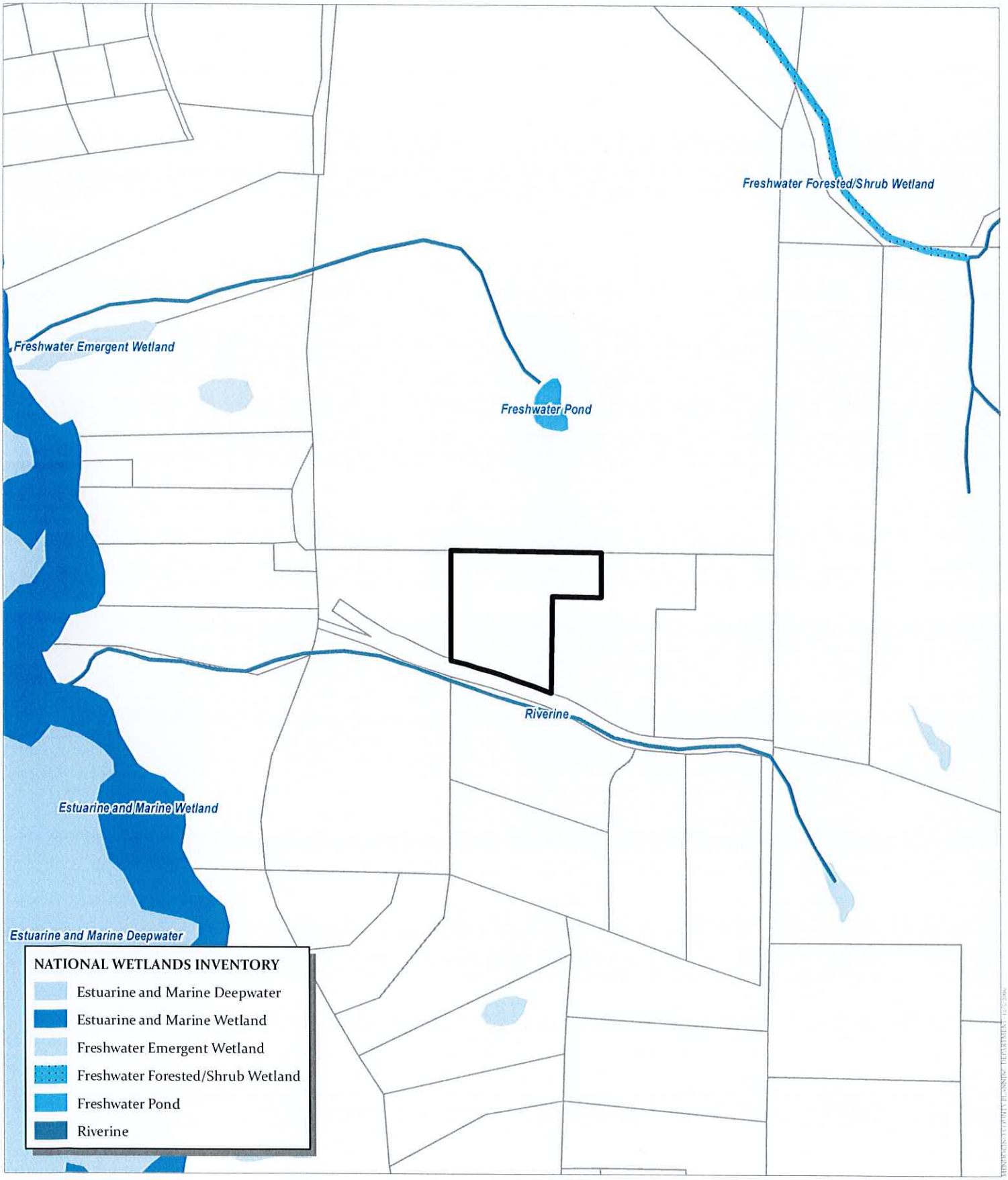
Critical Water Areas

Assessors Parcels

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

GROUND WATER RESOURCES

ATTACHMENT U



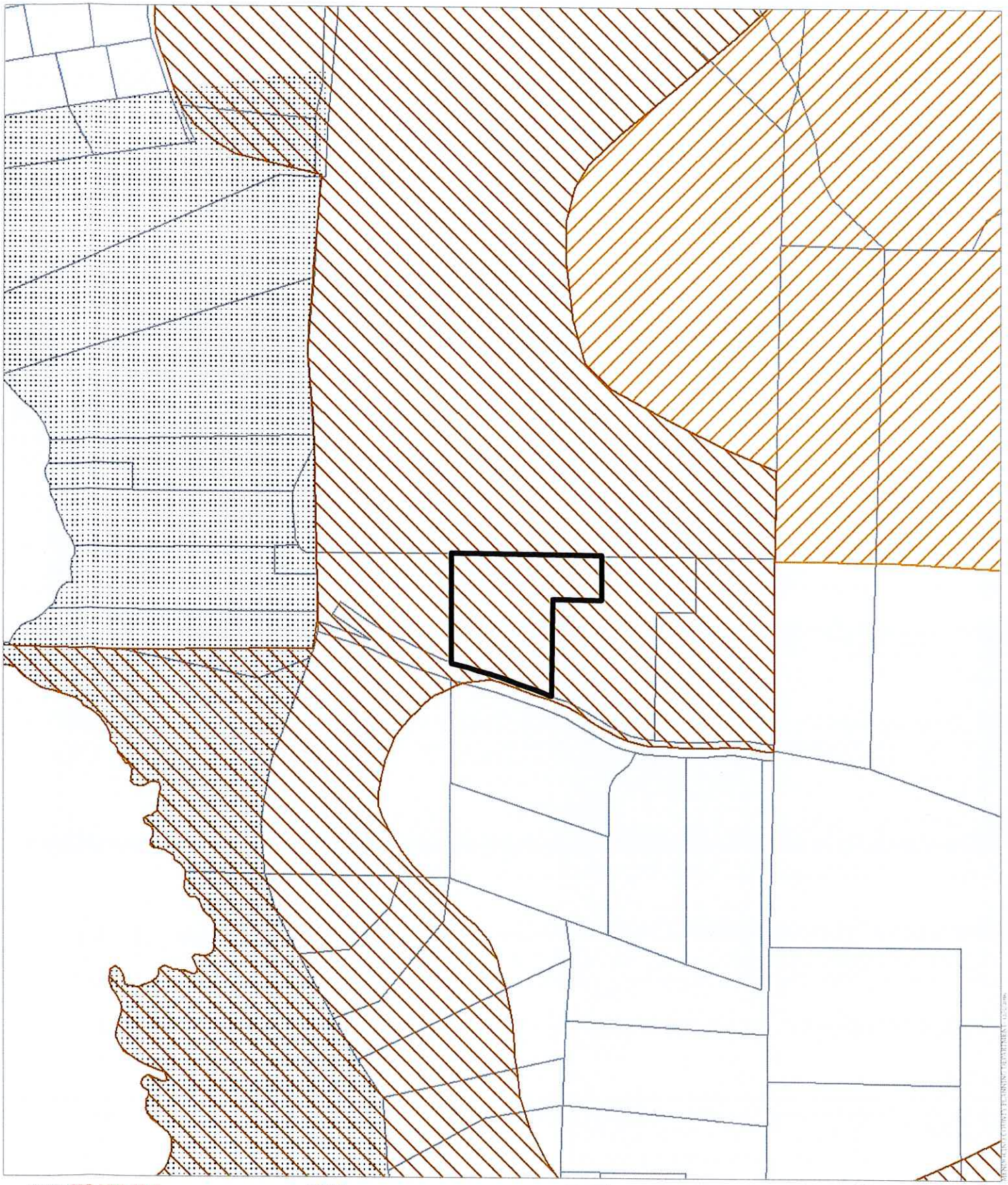
CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

Assessors Parcels

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

WETLANDS

ATTACHMENT V



CASE: CDP 2019-0045
OWNER: HERMANN, Lee & Sue
APN: 123-320-12
APLCT: Lee & Sue Hermann
AGENT: Debra Lennox
ADDRESS: 33840 Navarro Ridge Road, Albion

Tree Removal Area
Highly Scenic Area
Highly Scenic Area (Conditional)
Assessors Parcels

0 250 500 Feet
0 0.0425 0.085 Miles
N W E S
1:6,000

HIGHLY SCENIC & TREE REMOVAL AREAS

ATTACHMENT W

BIOLOGICAL SCOPING & BOTANICAL SURVEY REPORT

for

33840 Navarro Ridge Road
Albion, CA 95410
APN 123-320-12-00
Mendocino County

Property Owners:
Lee and Sue Herrmann
853 Upland Road
Redwood City, CA 94062

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

Contributing Biologists:
Karen Youngblood
Alison Gardner

October 16, 2018

Wynn Coastal Planning & Biology
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1. PROJECT SUMMARY

A biological and floristic survey was conducted at 33840 Navarro Ridge Road, Albion (APN 123-320-12) by Wynn Coastal Planning & Biology to locate Environmentally Sensitive Habitat Areas (ESHAs) - special status plants and communities, and special status animals and/or their habitats - to determine if they would be directly or indirectly impacted by the proposed development. Proposed development consists of building a single-family residence, garage, barn/workshop and associated infrastructure.

The parcel and survey area is located on the east side of Highway 1 and is 1.5 miles South of Albion. The entire 5.5 acre parcel was surveyed for this study. The study area is within the California Coastal Zone as defined in Section 30103 of the California Coastal Act (CCA). The general location of the subject parcel is shown in **Figure 1**.

Wynn Coastal Planning & Biology's staff biologists conducted floristic and ESHA surveys on June 9, 2017, July 21, 2017, April 9, 2018, and June 6, 2018 for a total of 11 person hours. One presumed ESHA was identified according to the definitions of the CCA and Mendocino County LCP **(Figure 2).**

- **Presumed Stream ESHA** – Outside of the southern parcel boundary and along Navarro Ridge Road is an excavated ditch with several culverts. These culverts form a small stream that runs along the road. At the eastern property boundary is an ephemeral drainage with wetland plants.

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

2. PROJECT DESCRIPTION

Currently, the Subject Parcel is mostly undeveloped. Proposed development consists of a single-family residence with an attached garage, workshop/barn, a pump house for the existing test well, with a barn and work area in addition to the associated infrastructure. A 300ft unsurfaced driveway is present off the parcel to the east. The proposed development will include an extension of this existing driveway onto the subject parcel.

3. STUDY AREA DESCRIPTION

3.1. General Site Description

The Study Area is approximately 5.5 acres and is located on the Navarro Ridge, 1.5 miles south of Albion, on the eastern side of Highway One and a half mile east of the Pacific Ocean. The parcel can be accessed by turning off of Highway One and heading a quarter mile up Navarro Ridge Road.

3.2. Land-Use History

A T-Sheet map produced in 1909 (**Figure 3**) shows that the majority of the parcel was under cultivation during that time period. Surrounding parcels were grass and/or under cultivation. An aerial photo from 1998 (**Figure 4**) shows that most of the parcel was grassland at that time with the planted Monterey cypress along the northern and western parcel boundaries.

ATTACHMENT X

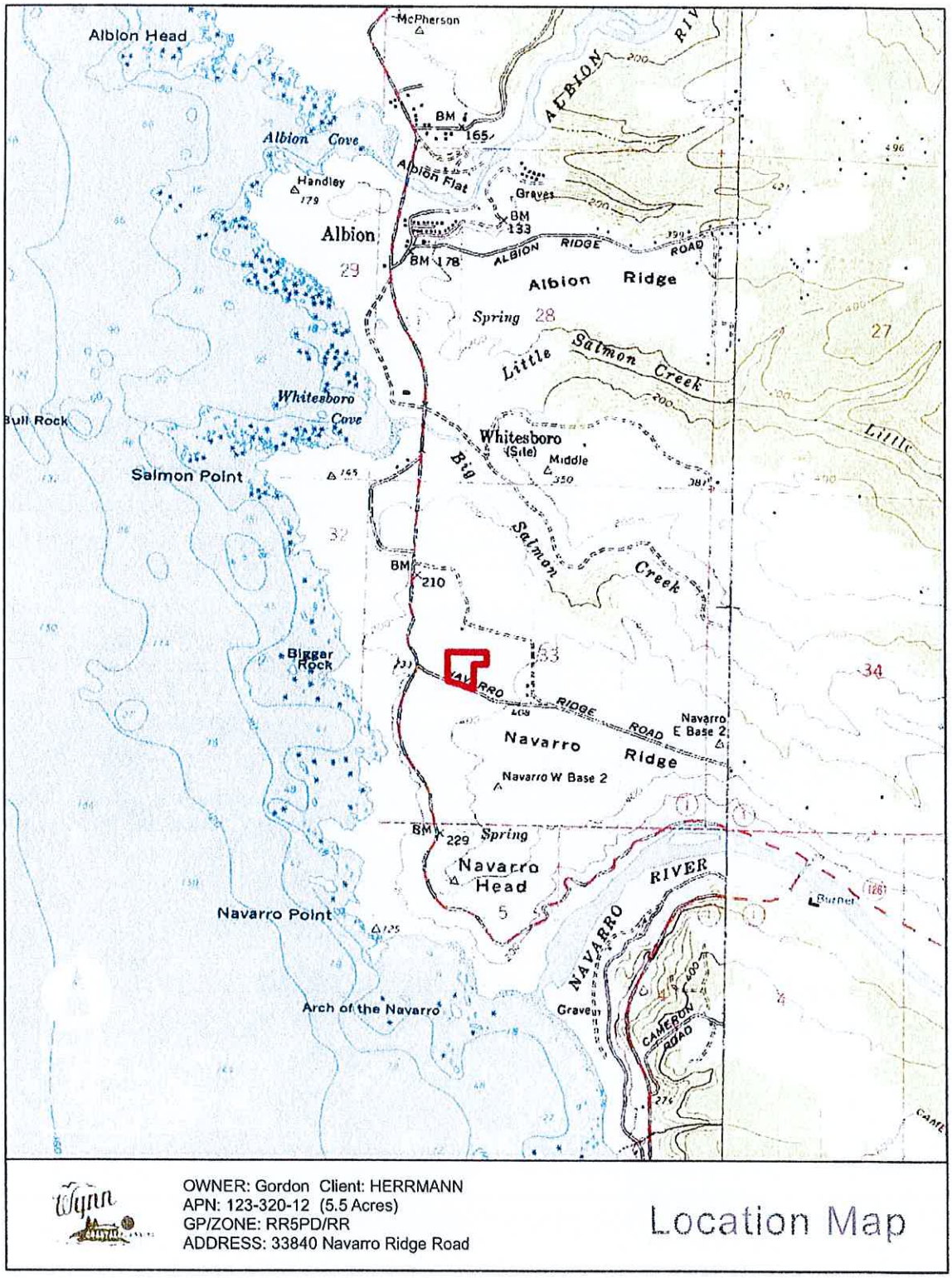

Figure 1 Location of Herrmann parcel.

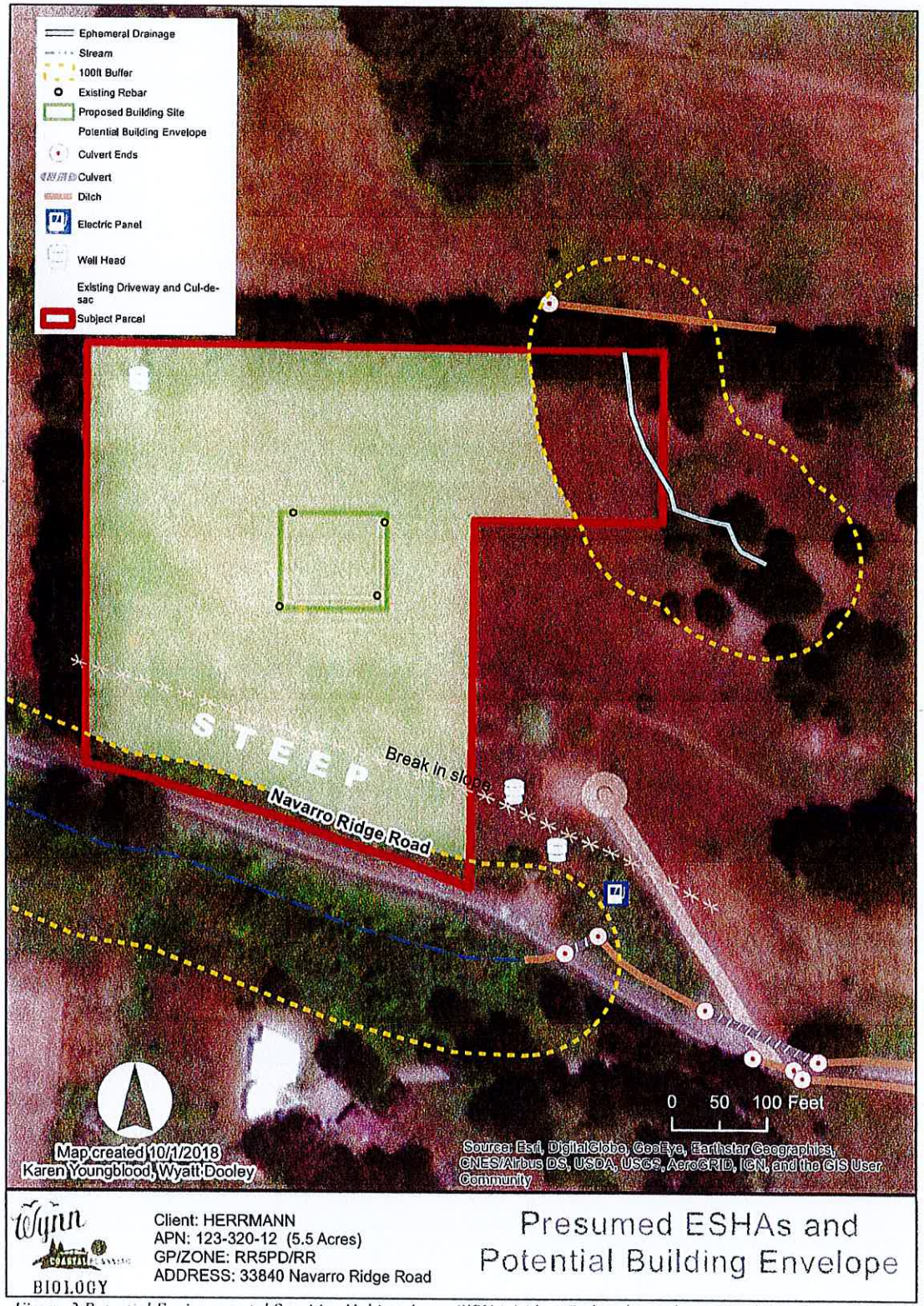

Figure 2 Potential Environmental Sensitive Habitat Areas (ESHAs) identified in the study area and their recommended buffers.

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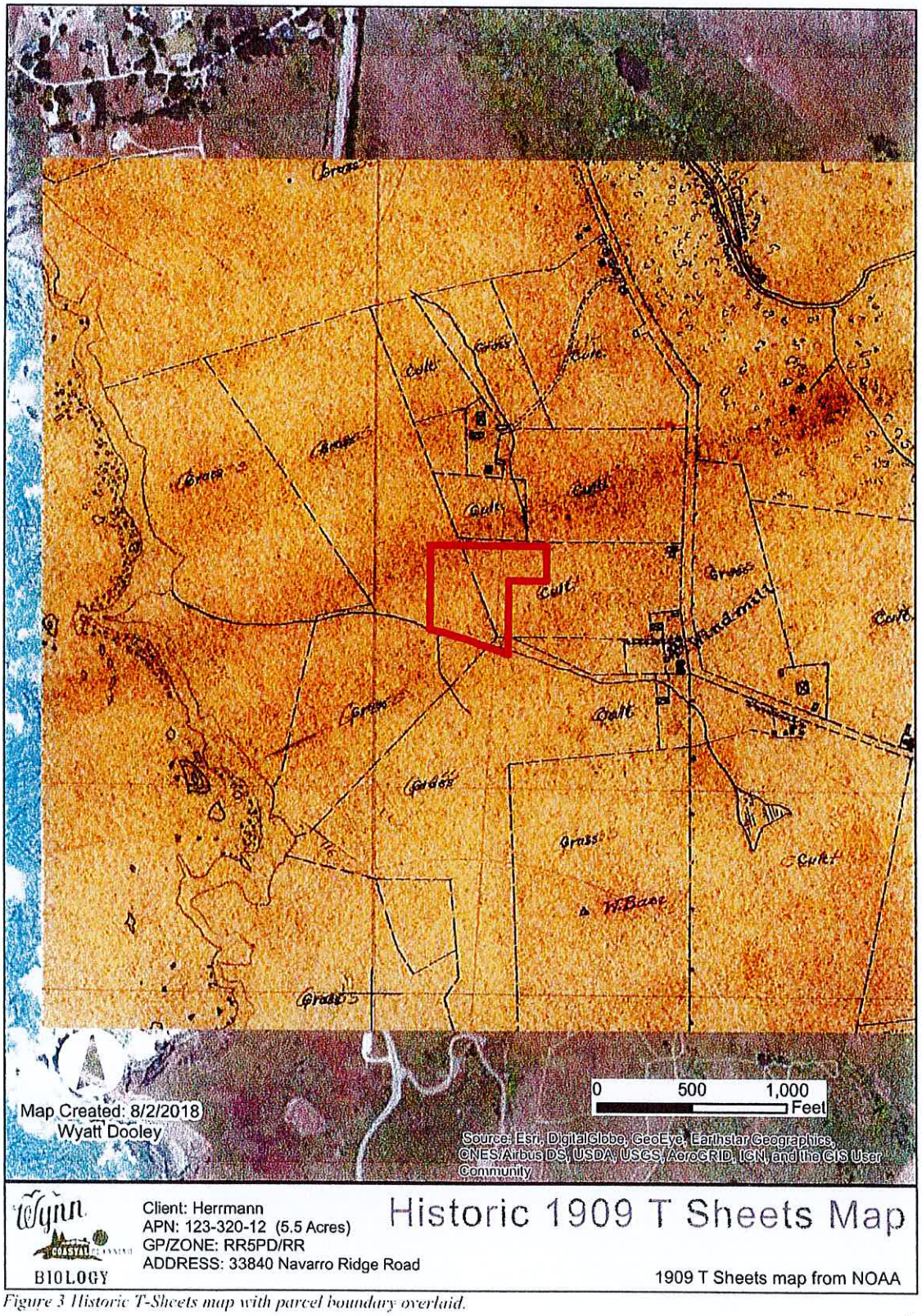

Figure 3 Historic T-Sheets map with parcel boundary overlaid.

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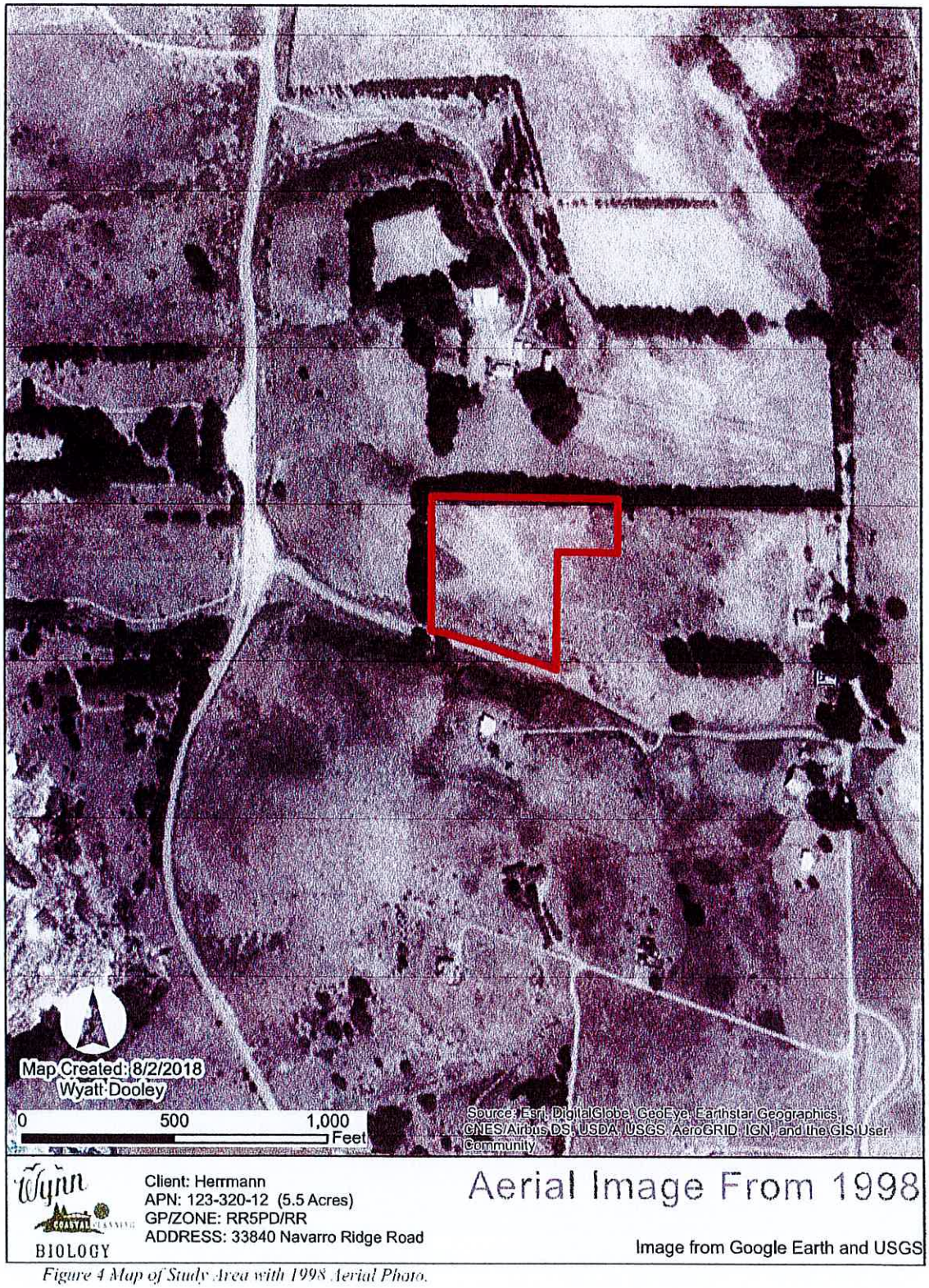


Figure 4 Map of Study Area with 1998 Aerial Photo.

ATTACHMENT X

3.3. Topography and Soils

The elevation of the study area is about 350 feet above sea level. Two types of soil have been mapped by the Natural Resource Conservation Service in the study area: Mallopass loam, 0 to 5% slopes and Dystropepts, 30 to 75% slopes. Mallopass loam, 0 to 5% slopes is formed in alluvium and is mainly vegetated with perennial grass and forbs. Dystropepts, 30 to 75% slopes, is formed from material derived from sandstone or shale. It's a very well-drained soil. According to the NRCS mapping results, Mallopass loam, 0 to 5% slopes is listed on the National hydric soil list due to the inclusion of Flumeville and Tropaquepts components, each of which makes up around 2% of the Mallopass soil map unit (USDA Natural Resource Conservation Service, 2001; **Appendix A**). It should be noted that when a given soil is listed on the National Hydric Soils List as a hydric soil, that does not necessarily mean a wetland is present. Soil complexes are mapped at a coarse resolution and contain a number of components, any one of which may or may not be hydric, and may or may not be present in the particular mapped location.

3.4. Climate and Hydrology

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

The USFWS National Wetlands Inventory was referenced and depicts a narrow riverine wetland along the southern side of Navarro Ridge Road (**Appendix B**).

3.5. Vegetation and Natural Communities

Vegetation along the northern and western parcel boundary consists of a row of old Monterey cypress trees, presumably planted for a wind break. The majority of the interior of the parcel is vegetated with non-native invasive grassland transitioning to coyote brush scrub toward the break in slope along the southern edge of the parcel (**Figure 5**). A stream with a narrow riparian area runs along Navarro Ridge Road, east of the southern boundary of the Subject Parcel, and then crosses under Navarro Ridge Road and continues west along the southern side of the road.

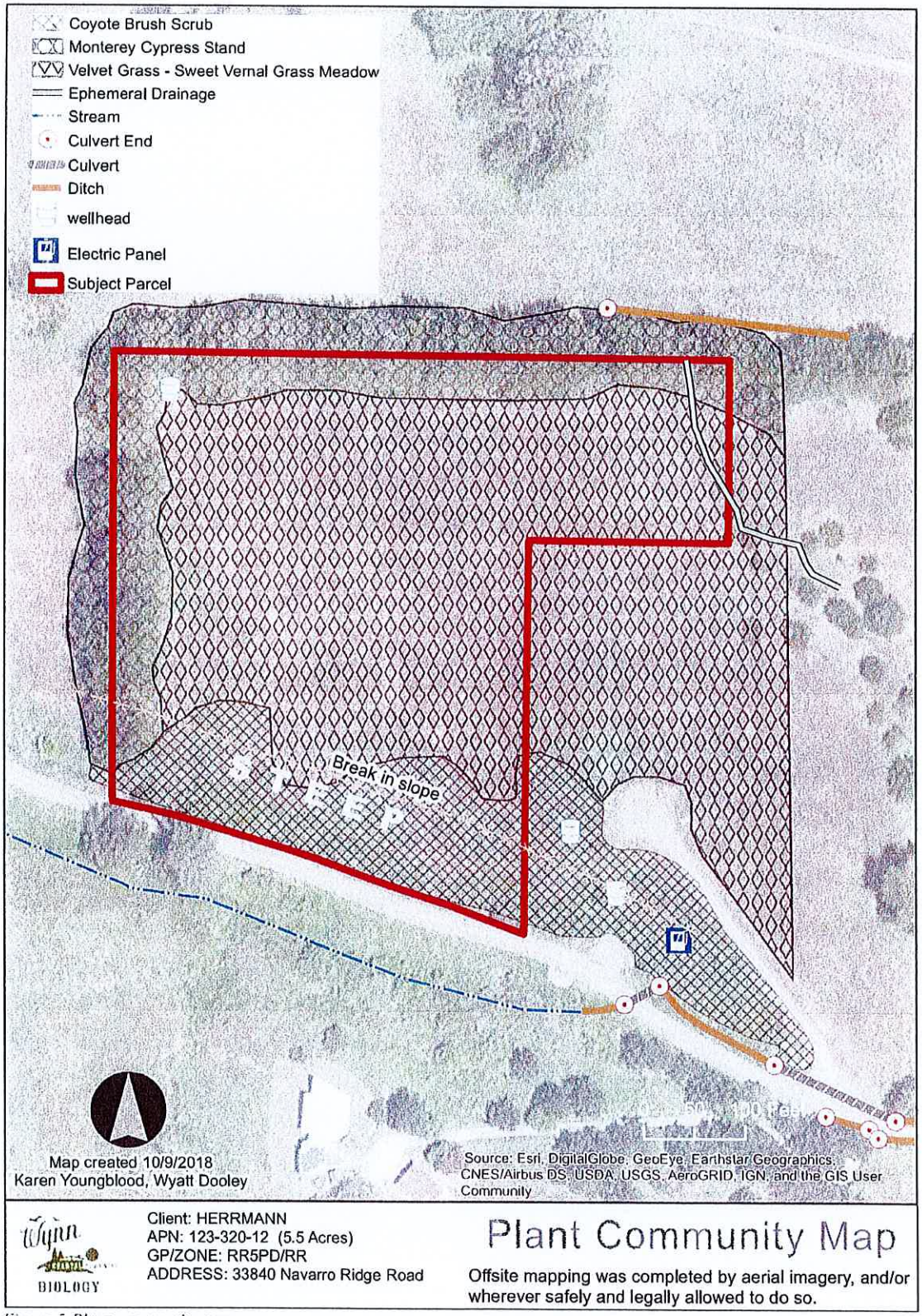


Figure 5 Plant community map.

3.6. Adjacent Lands
Lands surrounding the study area are either undeveloped or are large parcels similar in size to the Subject Parcel, many of which are developed with single family residences.

3.7. Existing Development
An existing road and easement is present outside of the southeastern property boundary. Several test wells and/or wellheads are present within the study area, and rebar is placed in the ground approximately where the development is proposed (**Figure 2**).

4. SURVEY METHODOLOGY

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

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

Maps were created using the California Natural Diversity Database CNDDB for records of species present within 1 mile of the study area **(Figure 6 and Figure 7)**. The CNDDB is a database consisting of historical observations of special-status plant species and wildlife species. CNDDB was used to help compile a list of special status plants and animals with potential to occur in the Study Area. This list was not limited to species presented in the maps, it includes all species indicated by a search of all quads with similar geology, habitats, and vegetation to those found in the project area. Because the CNDDB is limited to reported sightings, it is not a comprehensive list of plant species that may occur in a particular area. However, it is useful in refining the list of special-status plant species that have the potential to occur on a particular site.

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

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

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

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

4.2. Field Surveys

Wynn Coastal Planning & Biology's staff biologists conducted surveys on June 9, 2017, July 21, 2017, April 9, 2018, and June 6, 2018 for a total of 11 person hours, to compile a full floristic list of plants occurring in the study area and to identify any natural resources having the potential to meet the LCP ESHA definitions. To ensure potential ESHA plants were evident and identifiable, offsite **reference plant populations** were visited prior to the project field surveys. Verified offsite reference site plants observed by WCP&B staff during the 2017 and 2018 floristic seasons included: Point Reyes blennosperma (*Blennosperma nanum* var. *robustum*), Blasdale's bent grass *(Agrostis blasdalei)*, seacoast angelica (*Angelica lucida),* swamp harebell (*Campanula californica),* Mendocino coast paintbrush (*Castilleja mendocinensis*), supple daisy (*Erigeron supplex*), headland wallflower (*Erysimum concinnum*), short-leaved evax (*Hesperevax sparsiflora* var. *brevifolia*), Point Reyes horkelia (*Horkelia marinensis*), thin-lobed horkelia (*Horkelia tenuiloba*), harlequin lotus (*Hosackia gracilis*), Baker's goldfields (*Lasthenia californica* ssp. *bakeri*), perennial goldfields (*Lasthenia californica* ssp. *macrantha*), coast lily (*Lilium maritimum*), coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*), deceiving sedge (*Carex saliniformus*), great burnet (*Sanguisorba officinalis*), early blue violet (*Viola adunca*), and corn lily *(Veratrum fimbriatum*).

All identifiable plant species located during the surveys were identified to the lowest taxonomic level necessary to determine the presence of special status plant species. Special status plants are listed in **(Appendix C Table 1**). *The Jepson Interchange: Jepson eFlora* (UC/JEPS 2018) was used to determine the taxonomic nomenclature. *A Manual of California Vegetation Second Edition* (Sawyer 2009), *Classification of the Vegetation Alliances and Associations of Sonoma County, CA, V. 2* (Klein 2015) and the *List of Vegetation Alliances and Associations* (CDFW 2010) were used to classify and describe representative plant communities present.

4.3. Stream Delineation

An ephemeral stream was delineated along the eastern parcel boundary. A stream was delineated along Navarro Ridge Road as well. The streams were delineated using a GPS to delineate the streams. Aerial imagery was also used to further help with delineating the streams.

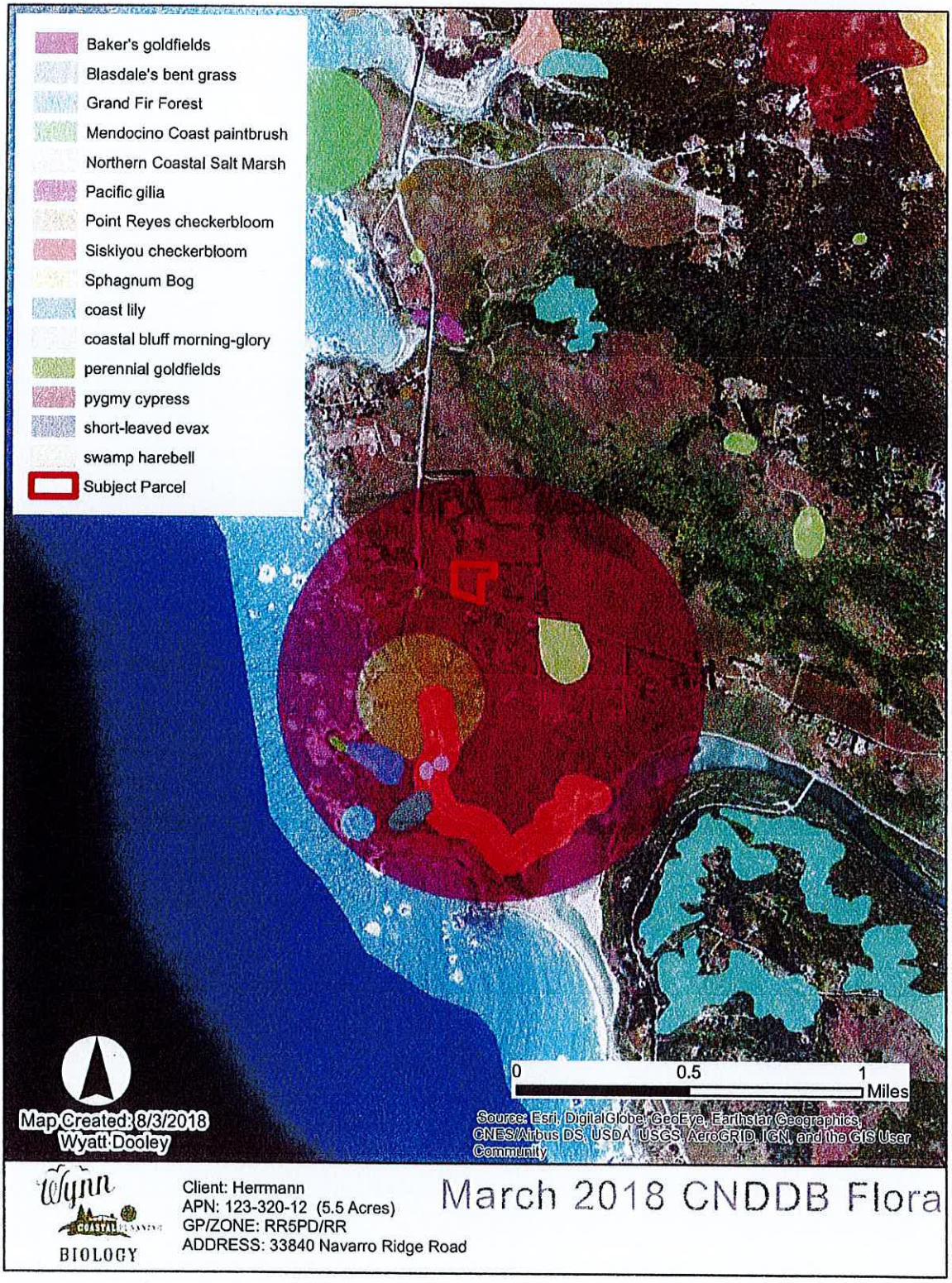


Figure 6 Rare flora documented in the California Natural Diversity Database in the proximity of the study area.

Figure 7 Rare fauna documented in the CNDDB database in the proximity of the study area.

ATTACHMENT X

5. SURVEY RESULTS

Biological Field Surveys were performed that identified the following: plants, plant communities, riparian area, streams, and wildlife habitat in the study area.

5.1. Plants – No ESHA Found

One hundred and twenty-seven species of herbs, grasses, sedges, rushes, ferns, shrubs, and trees were identified in the study area and are listed in **Appendix D**. No special status plants were observed.

5.2. Plant Communities Observed

5.2.1. Velvet Grass – Sweet Vernal Grass Meadow (*Anthoxanthum odoratum – Holcus lanatus* Herbaceous Semi-natural Alliance, and *Briza maxima* Provisional Semi-Natural Association) – Non-Native Grassland

Non-native grassland was the most expansive plant community in the study area. The majority of the parcel was vegetated with a mosaic of sweet vernal grass (*Anthoxanthum odoratum*), common velvet grass (*Holcus lanatus*), and rattlesnake grass (*Briza maxima*) (**Figure 8**). Other species present included: orchard grass (*Dactylis glomerata*), Oxe eye daisy (*Leucanthemum vulgare*), flax (*Linum bienne*), rough cat's ear (*Hypochaeris radicata*), hawkbit (*Leontodon saxatilis*), California blackberry (*Rubus ursinus*), silvery hairgrass (*Aira caryophyllea*), blue wildrye (*Elymus glaucus*), English plantain (*Plantago lanceolata*), spring vetch (*Vicia sativa*), wild carrot (*Daucus pusillus*), bracken fern (*Pteridium aquilinum*), rough hedge nettle (*Stachys rigida*), yarrow (*Achillea millefolium*), canary grass (*Phalaris* sp.), little rattlesnake grass (*Briza minor*), scarlet pimpernel (*Lysimachia arvensis*), jointed charlock (*Raphanus sativus*), cowparsnip (*Heracleum maximum*), cascara buckthorn (*Frangula purshiana*), corn spurry (*Spergula arvensis*), purple awned wallaby grass (*Rytidosperma penicillatum*), cutleaf burnweed (*Senecio glomeratus*), hedge nettle (*Stachys ajugoides*), poison hemlock (*Conium maculatum*) and coyote brush (*Baccharis pilularis) present at low density.*

Figure 8 Non-native grassland dominated by sweet vernal grass and common velvet grass looking north west.

5.2.2. Coyote Brush Scrub (*Baccharis pilularis* Shrubland Alliance G5S5)

Coyote brush scrub (**Figure 9**) was present along the southern edge of the terrace and along the steep slope adjacent to Navarro Ridge Road. This plant community was characterized by the presence of coyote brush (*Baccharis pilularis*) at a density from between 10% absolute cover to ~80% absolute cover. The assemblage and density of species changed whether the community was on the steep south-facing slope or up above on the study area's terrace. Plant species found in between the coyote brush shrubs on the terrace include the majority of those listed within the non-native grassland plant community described above.

As the habitat continues down the break in slope and the steep bank, the assemblage of species changes to from coyote brush with non-native grassland to coyote brush with cascara buckthorn (*Frangula purshiana*) (**Figure 10**). The following species were also characteristic of the coyote brush scrub habitat along the steep slope: silk tassel (*Garrya elliptica*), sticky monkey flower (*Diplacus aurantiacus*), sword fern (*Polystichum munitum*), jointed charlock, cow parsnip, yarrow (*Achillea millefolium*), oxe eye daisy (*Leucanthemum vulgare*), wild rose (*Rosa nutkana*), wild cucumber (*Marah oregana*), California bee plant (*Scrophularia californica*), poison oak (*Toxicodendron diversilobum*), bracken fern, rough hedge nettle (*Stachys rigida*), Douglas iris (*Iris douglasiana*), Carmel ceanothus (*Ceanothus thyrsiflorus* var. *griseus*), and smooth western morning glory (*Calystegia purpurata* ssp. *purpurata*).

Figure 9 Edge of coyote brush scrub and non-native grassland looking south east.

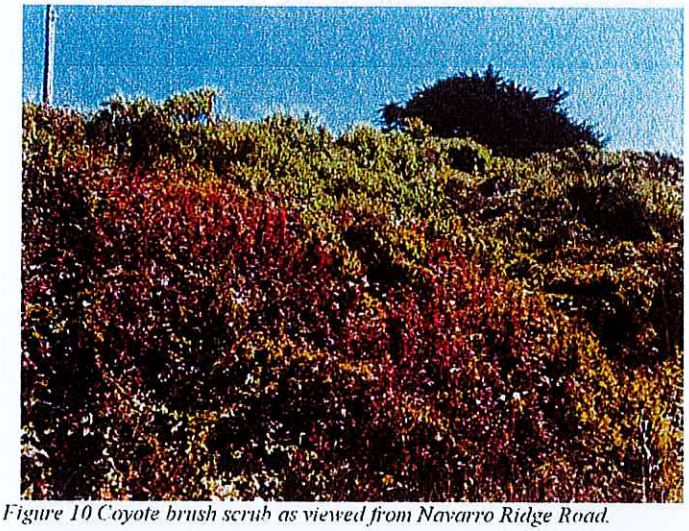


Figure 10 Coyote brush scrub as viewed from Navarro Ridge Road.

5.2.3. **Monterey Cypress (*Hesperocyparis macrocarpa* Provisional Semi-Natural Stand)**
Along the northern and western parcel boundary lines is a stand of presumably planted Monterey cypress trees (*Hesperocyparis macrocarpa*). These cypress trees have existed since long before the 1998 aerial photo was taken by USGS (**Figure 4**). The understory was sparse, densely shaded with thick leaf litter. Plants found in the understory include: bull thistle (*Cirsium vulgare*), coastal burnweed (*Senecio minimus*), bedstraw (*Galium aparine*), sheep sorrel (*Rumex acetosella*), English ivy (*Hedera helix*), Douglas iris, California blackberry, cascara buckthorn, sword fern, red elderberry (*Sambucus racemosa*), chickweed (*Stellaria media*), and young wax myrtle (*Morella californica*).

It should be noted that Monterey cypress is considered rare in its natural range within the Monterey Peninsula, which is located more than 200 miles south of Mendocino County and Little River, California. Monterey cypress found in other regions is considered non-native as it is not naturally occurring. Monterey cypress does not warrant protection in Mendocino County.

5.3. Hydrology

5.3.1 Ditches
Manmade excavated road side ditches were created through dry land along Navarro Ridge Road as depicted in **Figure 2**. These excavated ditches do not have wetland or riparian plants associated with them. Vegetation surrounding the ditches in this area was consistent with the coyote brush scrub plant community described above. The road side ditches converge on the southern side of Navarro Ridge Road where the surrounding vegetation begins to exhibit characteristics of wetland/riparian areas with a small stream running through the center of it.

5.3.2 Streams – Presumed ESHA
Beyond the eastern property boundary, an ephemeral drainage begins and enters the eastern property boundary (**Figure 11**). Within the boundaries of the subject parcel this ephemeral (Class III) drainage displays narrow bed and bank features. The ephemeral drainage was primarily vegetated with plants found in the non-native grassland habitat as described above. In addition to these plants, species characteristic of wetter areas were also present at the center of the swale. These species included wonder woman sedge (*Carex gynodynama*) and blue-eyed grass (*Sisyrinchium bellum*) (**Figure 12**). Further to the east, beyond the parcel boundaries, there were also several patches of young wax myrtle trees (*Morella californica*) and areas with slough sedge (Carex obnupta) herbaceous layer. Because the ephemeral drainage supports some species that can live as hydrophytes, for the purpose of this report, this area was treated as presumed ESHA

and buffered accordingly.

As the ephemeral drainage enters the cypress stand, the channel widens, then ceases to display bed and bank features, dissipating into the parcel to the north where an excavated ditch (**Figure 13**) is present. The excavated ditch is approximately two feet deep and wide with bare soil on the sides and bottom. Surrounding this excavated ditch, there are no wetland plants. The surrounding vegetation is non-native grassland. At the western end of this ditch is a culvert that appears to run northwest to an unknown destination further off site.

Figure 11 Ephemeral drainage found onsite. Red line depicting approximate contour of drainage.

Figure 12 Hydrophytic vegetation growing in the ephemeral drainage.

Figure 13 The ephemeral drainage dissipating into the cypress stand before entering the ditch.

5.4. Wildlife - Potential Occurrences

The California Department of Fish and Wildlife (CDFW) California Native Diversity Database (CNDDB) BIOS, Version 5 (2016), was used to focus the search on fauna previously reported in the vicinity of the project area (**Figure 7**). No special-status wildlife was observed during the field biological surveys; however, suitable habitat for special status wildlife species was identified. Descriptions below are for wildlife species with moderate to high potential to occur, and for State or Federally Endangered or Threatened Species with potential to occur. A complete list of special status wildlife with the potential to occur at the project site can be found in **Table 3 of Appendix C.**

5.4.1. Invertebrates

a) **Lotis Blue butterfly (*Lycaeides argyrognomon lotis*)** (G5TH SH). This Federally Endangered butterfly species has not been seen since 1983, it is primarily from Mendocino County but historically recorded in northern Sonoma and possibly Marin Counties. This species inhabits wet meadows, damp coastal prairie, and potentially bogs or poorly-drained sphagnum-willow bogs where soils are waterlogged and acidic. **The presumed host plant is Harlequin lotus (*Hosackia gracilis*), which was not observed within the study area and therefore no further surveys are recommended at this time.**

b) **Behren's silverspot butterfly (*Speyeria zerene behrensii*)** (G5T1 S1). Behren's silverspot is known historically from the town of Mendocino, Mendocino County, south to the area of Salt Point State Park, Sonoma County. Now presumed to be from Manchester south to the Salt Point area. This species inhabits coastal terrace prairie with caterpillar host plant western dog violet, and adult nectar sources such as thistles, asters, etc. **No western dog violet (*Viola adunca*) was found in the study area and therefore no further surveys are recommended at this time.**

c) **Western Bumblebee (*Bombus occidentalis*)** (G2G3 S1) Western bumblebee (*Bombus occidentalis*) is not a Federal or State protected species but is listed as a California Natural Diversity Database S1 species, an indication that there are limited known occurrences in California. The project area is in the former historical range of this species. Bumblebees observed during botanical surveys did not exhibit the field markings of the western bumble bee, which include a conspicuous white tip of the abdomen. No further surveys are recommended at this time.

5.4.2. Fish

As shown in **Figure 11** & **Figure 12** above, no aquatic habitat capable of supporting fish was observed within the Study Area.

5.4.3. Amphibians

a) **Northern red-legged frog (*Rana aurora aurora*) (G4T2T3 S2S3)** Northern red-legged frog (*Rana aurora*) is listed as a California Department of Fish and Wildlife Species of Special Concern. The range extends from the southwest British Colombia coast to central Mendocino County. Often found in woods adjacent to streams and stream sides with plant cover, northern red-legged frog breeds in permanent water sources, including lakes, ponds, reservoirs, slow streams, marshes, bogs, and swamps. **While the streams onsite are not suitable breeding habitat they may be used as wildlife corridors to breeding grounds.**

Mitigation and Avoidance measures in Section 7 address how to minimize impacts to all potentially occurring amphibians including prohibiting sediment transport into the streams to protect potential frog and salamander habitat. It is also recommended that the contractor be trained to recognize amphibians and contact a qualified biologist if any are found onsite during construction activities.

b) **Red-bellied newt (*Taricha rivularis*) (G4 S2)** This Species of Special Concern inhabits primarily redwood forest, but also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Rapid-flowing, permanent streams are required for breeding and larval development. No suitable breeding habitat was present within the Study Area. **This species may range up to a mile from streams and may therefore be found in upland habitat during some times of the year. Identification and avoidance training for construction workers should include a discussion of this species.**

5.4.4. Birds

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

6. MITIGATION AND AVOIDANCE MEASURES

The proposed project has been analyzed relative to its proximity to natural resources to determine its potential disturbance to sensitive species, utilizing the methods and results gathered above. As a result of those analyses, we believe that potential impacts to ESHA habitats (riparian, stream) can be minimized or avoided if the project utilizes the Mitigation and Avoidance Measures we recommend below.

The following mitigation measures are recommended to minimize impacts to presumed ESHA within the study area.

6.1. Potential Impact 1: Potential Impact to Birds

Construction in the Study Area has the potential to disturb special status birds during the nesting season. Removal of vegetation and construction activity has the potential to disturb bird species.

6.1.1. Measure 1a: Seasonal Avoidance

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

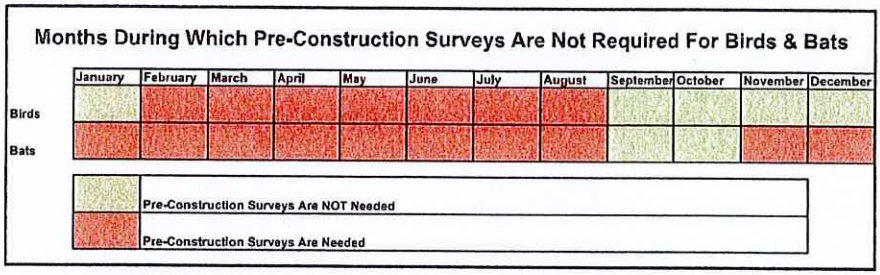
6.1.2. Measure 1b: Nest Avoidance

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

6.1.3. Measure 1c: Construction activities during daylight hours

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

Table 1 Chart showing when surveys are and are not required for birds and bats.



6.2. Potential Impact 2: Potential Impact to Special Status Amphibians - light and noise disturbance, erosion of sediment and debris, ground disturbance

Construction activities will involve noise from construction tools, bringing new material to the site and removing old material. To minimize impacts to the amphibians, the following avoidance measures should be followed. Additional avoidance measures (**Measures 3a-d**) should be followed to ensure no special status amphibians with the potential to occur areas are detrimentally impacted within construction sites.

6.2.1. Measure 2a: Construction activities during daylight hours

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

6.3. Potential Impact 3: Potential Impact to Special Status Amphibians – Disturbance in upland areas during staging and ground disturbance

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

6.3.1.1. Measure 3a: Contractor education

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

6.3.2. Measure 3b: Pre-construction search

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

6.3.3. Measure 3c: Careful debris removal

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

6.3.4. Measure 3d: No construction during rain event

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

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

If no special status amphibians are found during inspections, ground-disturbing activities may

resume.

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

6.4. Potential Impact 4: Invasive Plants

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

6.4.1. Measure 4a: Plant non-invasive vegetation

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

7. DISCUSSION

It is the professional opinion of the biologists at Wynn Coastal Planning & Biology that the project, as proposed, is the least damaging and most feasible option.

One types of potential ESHA was identified within the Study Area:

- **Presumed Stream ESHA** – Outside of the southern parcel boundary, along Navarro Ridge Road, is a ditch clearly excavated from dry land with several culverts. These culverts contribute to a small stream that runs along the road. In addition, at the eastern property boundary is an ephemeral drainage with wetland plants.

The project was designed to avoid all special status resources by 100'. The proposed development is not expected to have any significant negative impact on any of the special status natural resources present as long as the Mitigation and Avoidance measures are followed.

ATTACHMENT X

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9. INVESTIGATOR BIOGRAPHIES

Contributing Biologists

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

Wyatt Dooley graduated from University of California Santa Barbara with a Bachelor's of Science in Environmental Studies and a minor in Geology. After graduating, he worked for Fish and Wildlife and Pacific States Marine Fisheries as a technician researching salmon. He has also worked abroad in New Zealand as a conservation ranger helping on restoration projects and controlling invasive species. Additionally, he has received training in Army Corp wetland delineation by San Francisco State University and the Wetland Science and Coastal Training Program, training from CNPS-CDFW on vegetation rapid assessment and relevé methods, is on the US Fish and Wildlife Service's approved list for Point Arena Mountain Beaver Surveys, and received a specialization in ArcGIS through University of California Davis.

Asa B Spade graduated from Humboldt State University with a Bachelor's Degree in Environmental Science, with a concentration in Landscape Ecosystems as well as a minor in Botany. Since that time, he has been working in the natural resources field, first with Mendocino County Environmental Health and later with California State Parks and the Department of Fish and Game. He has been trained in Army Corps wetland delineation by the Coastal Training Program at Elkhorn Slough and in Advanced Wetland Delineation by the Wetland Science and Coastal Training Program. He has been trained in the environmental compliance process for wetland projects in San Francisco bay and outer coastal areas. Asa has trained with the Carex Working Group in identifying grasses and sedges of Northern California. He is on the Fish and Wildlife Service approved list for Point Arena mountain beaver surveys and has done surveys for Behren's silverspot butterfly, Northern spotted owl, Sonoma tree vole, and the California red-legged frog. He has contributed to more than 150 coastal development projects in Mendocino County.

Alison Gardner is an experienced field botanist, naturalist, and independent consultant with over 35 years of botanical experience in Mendocino County. Ms. Gardner holds a Natural history certificate from C/R and has helped teach plant taxonomy, wild flower ID, mushroom ID, and dendrology classes at Mendocino College.

ATTACHMENT X

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Mendocino County, Western Part, California

Herrmann

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

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

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

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

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

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

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

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

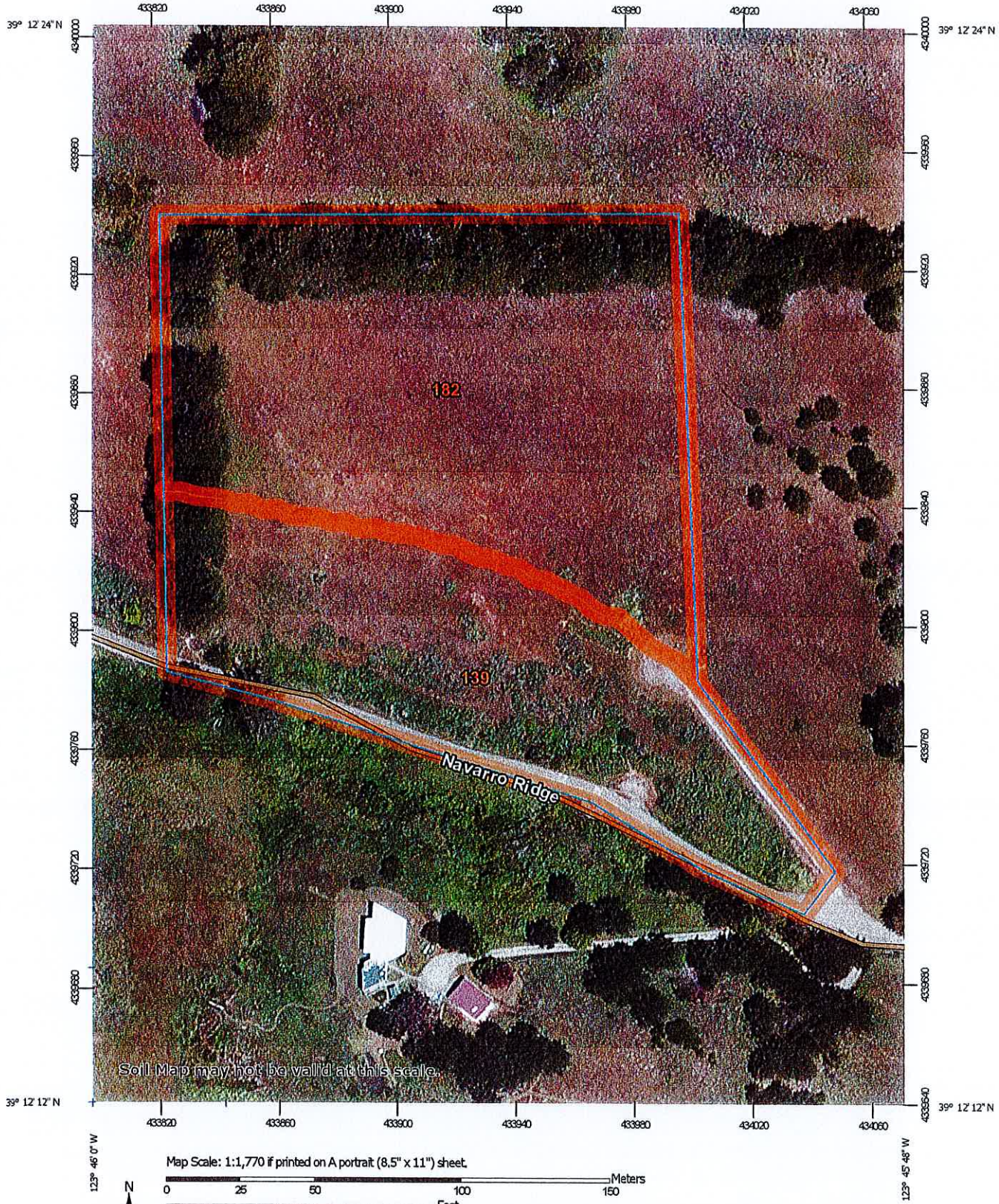
Custom Soil Resource Report

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

Soil Map

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

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,770 if printed on A portrait (8.5" x 11") sheet.

N

0 25 50 100 150 Meters

0 50 100 200 300 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

Custom Soil Resource Report

ATTACHMENT Y

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

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

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

Soil Survey Area: Mendocino County, Western Part, California
Survey Area Data: Version 11, Sep 22, 2016

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

Date(s) aerial images were photographed: Jun 16, 2010—Jun 27, 2010

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

Map Unit Legend

Mendocino County, Western Part, California (CA694)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
139	Dystropepts, 30 to 75 percent slopes	3.4	40.4%
182	Mallopass loam, 0 to 5 percent slopes	5.0	59.6%
Totals for Area of Interest		**8.5**	**100.0%**

Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

Mendocino County, Western Part, California

139—Dystropepts, 30 to 75 percent slopes

Map Unit Composition

Dystropepts and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dystropepts

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Residuum weathered from sandstone and shale

Properties and qualities

Slope: 30 to 75 percent
Depth to restrictive feature: More than 80 inches
Runoff class: High
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Minor Components

Abalobadiah

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

Unnamed, gentler or steeper slopes

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

Unnamed, talus

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

Vizcaino

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

Rock outcrop

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

182—Mallopass loam, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: hmnf

Elevation: 50 to 800 feet
Mean annual precipitation: 35 to 45 inches
Mean annual air temperature: 52 to 54 degrees F
Frost-free period: 250 to 330 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

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

Description of Mallopass

Setting

Landform: Marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

H1 - 0 to 14 inches: loam
H2 - 14 to 34 inches: clay loam
H3 - 34 to 62 inches: gravelly sandy clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: Loamy Terrace (Perennial Grass) (R004XB059CA)
Hydric soil rating: No

Minor Components

Crispin

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

Windyhollow

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

Biaggi

Percent of map unit: 3 percent

Hydric soil rating: No

Flumeville

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

Tropaquepts

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

Unnamed, steeper slopes

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

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U.S. Fish and Wildlife Service

National Wetlands Inventory

Herrmann NWI Wetlands Map

October 16, 2018

September 20, 2017

Wetlands

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

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

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

ATTACHMENT Y

Appendix C. Species Rarity Ranking System and Definitions

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

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

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

CNPS Ranking

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

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

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

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

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

Threat Code extensions and their meanings:

.1 - Seriously endangered in California

.2 – Fairly endangered in California

.3 – Not very endangered in California

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

SPECIES OR NATURAL COMMUNITY LEVEL

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

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

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

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

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

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

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

ATTACHMENT Y

Appendix C. Species Rarity Ranking System and Definitions

GXC - Extinct in the wild; exists in cultivation.

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

T - Rank applies to a subspecies or variety.

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

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

S1.1 = very threatened

S1.2 = threatened

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

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

S2.1 = very threatened

S2.2 = threatened

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

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

S3.1 = very threatened

S3.2 = threatened

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

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

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

Notes:

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

Appendix A . Table 1. Rare plant scoping list.

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

Appendix A . Table 1. Rare plant scoping list.

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

Appendix A . Table 1. Rare plant scoping list.

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

Appendix A . Table 1. Rare plant scoping list.

Scientific Name (Synonyms) Common Name	Habitat found	Blooming Period	CRPR	Fed. Listing	State Listing	State Rank	Global Rank	Found?
Pinus contorta ssp.bolanderi Bolander's beach pine	Closed-cone coniferous forests with podzol-like soils. Associated with Mendocino cypress and bishop pine, and Mendocino pygmy cypress forests.	Jul-Aug	1B.2	N	N	S2	G5T2	No
Piperia candida White-flowered rein orchid	Sometimes serpentinite, Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest	Mar-Sep	1B.2	N	N	S3	G3	No
Pleuropogon hooverianus North Coast semaphore grass	open areas, mesic, broadleafed upland forest, meadows and seeps, North coast coniferous forest.	Apr-Jun	1B.1	N	CT	S2	G2	No
Potamogeton epihydrus Ribbonleaf pondweed	Marshes and swamps (assorted shallow freshwater)	Jun-Sep	2B.2	N	N	S2.2?	G5	No
Puccinellia pumila Dwarf alkali grass	Coastal salt marshes and swamps; meadows and seeps, mineral spring meadows.	Jul	2B.2	N	N	SH	G4?	No
Rhynchospora alba White beaked-rush	Bogs and fens (sometimes in Mendocino pygmy forests); meadows and seeps; marshes and swamps (freshwater).	Jul-Aug	2B.2	N	N	S2	G5	No
Sanguisorba officinalis Great burnet	Bogs and fens,broadleafed upland forests, meadows and seeps, marshes and swamps, North Coast coniferous forests, riparian forests, Serpentine seepage areas and along stream borders.	Jul-Oct	2B.2	N	N	S2	G5?	No
Sidalcea calycosa ssp.rhizomata Point Reyes checkerbloom	Freshwater marshes and swamps near the coast.	Apr-Sep	1B.2	N	N	S2	G5T2	No
Sidalcea malviflora ssp.patula Siskiyou checkerbloom	Often roadcuts, coastal bluff scrub; coastal prairie; North coast coniferous forest	May-Aug	1B.2	N	N	S2	G5T2	No
Sidalcea malviflora ssp. purpurea Purple-stemmed checkerbloom	Broadleafed upland forest, coastal prairie	May-Jun	1B.2	N	N	S1	G5T1	No
Trifolium buckwestiorum Santa Cruz clover	Gravelly margins of broadleafed upland forests, cismontane woodlands, coastal prairie. *(Common associates include Juncus bufonius, Soliva sessilis, Danthonia californica, and Bromus hordeaceus. In Mendocino Co., most collections from ~5 miles up Garcia River.)*	Apr-Oct	1B.1	N	N	S2	G2	No
Trifolium trichocalyx Monterey clover	Closed-cone coniferous forest (sandy, openings, burned areas).	Apr-Jun	1B.1	FE	CE	S1	G1	No
Triquetrella californica Coastal triquetrella	Soil of Coastal bluff scrub, coastal scrub,	NA	1B.2	N	N	S2	G2	No
Viola adunca Western dog violet	Yellow pine forest, red fir forest, lodgepole forest, redwood forest, mixed evergreen forest, subalpine forest, alpine fell-fields, wetland riparian. Common and widespread on open sea bluffs to red fir forest.	Apr-Aug	not ranked	N	N	?	?	No
Viola palustris Alpine marsh violet	Coastal Bogs and Fens; Coastal Scrub (mesic)	Mar-Aug	2B.2	N	N	S1S2	G5	No

Rare Plant Alliances Occuring in Coastal Mendocino County			
Scientific Name	**Common Name**	**Global & State Rank**	**Present**
Woodland and Forest Alliances and Stands			
Abies grandis Alliance	Grand fir forest	G4 S2	No
Acer macrophyllum Alliance	Bigleaf maple forest	G4 S3	No
Arbutus menziesii Alliance	Madrone forest	G4 S3	No
Callitropsis pigmaea Alliance	Mendocino pygmy cypress woodland	G2 S2	No
Chrysolepis chrysophylla Alliance	Golden chinquapin thickets	G2 S2	No
Lithocarpus densiflorus Alliance	Tanoak forest	G4 S3	No
Picea sitchensis Alliance	Sitka spruce forest	G5 S2	No
Pinus contorta ssp. *contorta* Alliance	Beach pine forest	G5 S3	No
Pinus muricata Alliance	Bishop pine forest	G3 S3	No
Sequoia sempervirens Alliance	Redwood forest	G3 S3	No
Tsuga heterophylla Alliance	Western hemlock forest	G5 S2	No
Umbellularia californica Alliance	California bay forest	G4 S3	No
Shrubland Alliances and Stands			
Arctostaphylos (nummularia, sensitiva)	Glossy leaf manzanita chaparral	G2 S2	No
Corylus cornuta var. *californica*	Hazelnut scrub	G3 S2?	No
Garrya elliptica Provisional Alliance	Coastal silk tassel scrub	G3? S3?	No
Diplacos aurantiacus Alliance	Bush monkeyflower scrub	G3 S3?	No
Holodiscus discolor Alliance	Ocean spray brush	G4 S3	No
Morella californica Alliance	Wax myrtle scrub	G3 S3	No
Rhododendron neoglandulosum	Western Labrador-tea thickets	G4 S2?	No
Rhododendron occidentale Provisional	Western azalea patches	G3 S2?	No
Rosa californica Alliance	California rose briar patches	G3 S3	No
Rubus (parviflorus, spectabilis, ursinus)	Coastal brambles	G4 S3	No
Salix hookeriana Alliance	Coastal dune willow thickets	G4 S3	No
Sphagnum Bog	Sphagnum bog	G3 S1.2	No
Salix sitchensis Provisional Alliance	Sitka willow thickets	G4 S3?	No
Herbaceous Alliances and Stands			
Abronia latifolia–Ambrosia	Dune mat	G3 S3	No
Argentina egedii Alliance	Pacific silverweed marshes	G4 S2	No
Bulboschoenus maritimus Alliance	Salt marsh bulrush marshes	G4 S3	No
Calamagrostis nutkaensis Alliance	Pacific reed grass meadows	G4 S2	No
Camassia quamash Alliance	Small camas meadows	G4? S3?	No
Carex obnupta Alliance	Slough sedge swards	G4 S3	No
Carex pansa Alliance	Sand dune sedge swaths	G4? S3?	No
Danthonia californica Alliance	California oat grass prairie	G4 S3	No
Elymus glaucus Alliance	Blue wild rye meadows	G3? S3?	No
Festuca rubra Alliance	Red fescue grassland	G4 S3?	No
Festuca idahoensis Alliance	Idaho fescue grassland	G4 S3?	No
Glyceria occidentalis	Northwest manna grass marshes	G3? S3?	No
Grindelia (stricta) Provisional Alliance	Gum plant patches	G3? S3?	No
Hordeum brachyantherum Alliance	Meadow barley patches	G4 S3?	No
Juncus (oxymeris, xiphioides)	Iris-leaf rush seeps	G2? S2?	No
Juncus lescurii Alliance	Salt rush swales	G3 S2?	No
Leymus mollis Alliance	Sea lyme grass patches	G4 S2	No
Leymus triticoides Alliance	Creeping rye grass turfs	G4 S3	No
Mimulus (guttatus) Alliance	Common monkey flower seeps	G4? S3?	No
Poa secunda Alliance	Curley bluegrass grassland	G4 S3?	No
Scirpus microcarpus Alliance	Small-fruited bulrush marsh	G4 S2	No
Woodwardia fimbriata	Woodwardia thicket	G3 S3.2	No
	North Coast Bluff Scrub	G2 S2.1	No
	Northern Coastal Terrace Prairie	G2 S2.1	No
Aquatic Vegetation			
Hydrocotyle (ranunculoides ,	Mats of floating pennywort	G4 S3?	No

Rare Plant Alliances Occuring in Coastal Mendocino County			
Scientific Name	**Common Name**	**Global & State Rank**	**Present**
Nuphar lutea Provisional Alliance	Yellow pond-lily mats	G5 S3?	No
Oenanthe sarmentosa Alliance	Water-parsley marsh	G4 S2?	No
Sarcocornia pacifica (*Salicornia*	Pickleweed mats	G4 S3	No
Sparganium (*angustifolium*) Alliance	Mats of bur-reed leaves	G4 S3?	No
Typha (*angustifolia, domingensis,*	Cattail marshes	G5 S5	No

Special-Status Wildlife with Potential Occurrence on the Project Site.										
Scientific name	**Common name**	**Federal Status**	**State Status**	**G**	**S**	**Organization Code**	**Habitat**	**County**	**East or West of HWY 1**	**Observed**
INVERTEBRATES										
Helminthoglypta arrosa pomoensis	Pomo bronze shoulderband snail	None	None	G2G3T1	S1	IUCN:DD	Found near the coast in heavily-timbered redwood canyons of Mendocino County, from Big River and Russian Gulch watersheds. Found under redwoods. Generally in somewhat moist duff. Found in scrub in forest opening under a power line in Russian Gulch.	MEN	W	No
Bombus caliginosus	Obscure Bumble bee	None	None	G4?	S1S2	IUCN_VU	Inhabits open grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as above ground in abandoned bird nests. Males patrol circuits in search of mates. Reported to DFW as within 5 miles of project site is an This species is very similar to the common yellow-faced bumblebee (Bombus vosnesenskii), differentiated by the structure of the male genitalia, he obscure bumblebee tends to have longer hairs, however, and yellow hairs are found on the underside of the abdomen.	MEN, SO, CL, HB, TR	EW	No
Bombus occidentalis	Western bumble bee	None	None	GU	S1	XERCES IM	Populations in central California have declined since the 1990's. It visits flowers in a variety of habitats. Identified by a white patch on its abdomen near tip. None recorded from coastal Mendocino County at http://www.xerces.org/bumblebees.	MEN, SO, CL, HB, TR	EW	No
Coelus globosus	Globose dune beetle	None	None	G1	S1	IUCN:VU	Subterranean beetle that tunnels through sand under dune vegetation. Since coastal dune habitat in California is diminishing, the beetle is a special-status species.	MEN, SO	W	No
Lycaeides argyrognomon lotis	lotis blue butterfly	Endangered	None	G5TH	SH	XERCES CI	Not seen since 1983, it is primarily from Mendocino County but historically from northern Sonoma and possibly Marin Counties. Inhabits wet meadows, damp coastal prairie, and potentially bogs or poorly-drained sphagnum willow bogs where soils are waterlogged and acidic. Presumed host plant is *Hosackia gracilis*.	MEN, SO	EW	No
Noyo intersessa	Ten Mile shoulderband snail	None	None	G2	S2	None	Known from a few locations in Mendocino County with limited habitat information. Known from Ten Mile Dunes.	MEN	W	No
Speyeria zerene behrensii	Behren's silverspot butterfly	Endangered	None	G5T1	S1	XERCES CI	Historically from near the City of Mendocino, Mendocino County, south to the area of Salt Point State Park, Sonoma County. Now presumed to be from Manchester south to Salt Point area. Inhabits coastal terrace prairie with caterpillar host plants: violet	MEN, SO	EW	No
Speyeria zerene myrtleae	Myrtle's Silverspot Butterfly	Endangered	none	[illegible]	[illegible]	none	Only known from four populations in northwestern Marin county and Southern Sonoma county	SO	E	No
FISH										
Oncorhynchus kisutch	Coho salmon - southern Oregon - northern California ESU	Threatened	Threatened	G4T2Q	S2?	AFS:TH DFG SSC	Requires beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	MEN, SO, HB	EW	No
Oncorhynchus mykiss irideus	steelhead-northern California DPS	Threatened	None	G5T2Q	S2	AFS:TH DFG:SSC	Cool, swift, shallow water and clean loose gravel for spawning.	MEN, SO, HB	EW	No
Oncorhynchus tshawytscha	chinook salmon – California coastal ESU	Threatened	None	G5	S2	AFS:TH	Adults depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27° C lethal to adults.	MEN, SO, HB	EW	No
Lavinia symmetricus navarroensis	Navarro roach	None	None	G5T1T2	S1S2	DFG SSC	Habitat generalists. Found in warm intermittent streams as well as cold, well-aerated streams. Found in the lower, warmer reaches of streams in the Russian and Navarro River drainages.	MEN	EW	No
Spirinchus thaleichthys	longfin smelt	None	Threatened				Found in open water [illegible] in bays and estuaries [illegible] Monterey to Alaska [illegible]	MEN, HB	EW	No
Lavinia symmetricus parvipinnis	Gualala roach	None	None	G5T1T2	S1S2	DFG SSC	Habitat generalists. Found in warm intermittent streams as well as cold, well-aerated streams.	MEN, SO	EW	No
Eucyclogobius newberryi	tidewater goby	Endangered	None	G3	S3S4	AFS EN DFG:SSC IUCN:VU	Brackish water habitats along the California coast from Agua Hedionda lagoon, San Diego Co. to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	MEN, SO, HB	EW	No
AMPHIBIANS & REPTILES										
Rhyacotriton variegatus	southern torrent (seep) salamander	None	None	G3G4	S2S3	DFG SSC IUCN:LC USFS:S	Found in Coastal redwood, Douglas fir, mixed conifer, montane riparian, and montane hardwood-conifer forests from northern California south to Point Arena. Aquatic habitat includes permanent cold creeks, streams and seepages with low water flow, associated with moss-covered rocks within trickling water and the splash zone of waterfalls; old-growth coniferous forests with closed canopy, <50% cobble in creeks, remainder mixture of pebble, gravel and sand.	MEN, HB, TR	EW	No
Ascaphus truei	Pacific tailed frog	None	None	G4	S2S3	DFG SSC IUCN:LC	Occurs in montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats. Coastal from Anchor Bay, Mendocino Co. to Oregon border. Cold, clear, rocky streams in wet forests. They do not inhabit ponds or lakes. A rocky streambed is necessary for cover for adults, eggs, and larvae. After heavy rains, adults may be found in the woods away from the stream.	MEN, HB, TR, CL	EW	No
Dicamptodon ensatus	California giant salamander			G3	S2S3		Found in forested streams in extreme southern Mendocino County.			No
Rana aurora aurora	northern red-legged frog	None	None	G4T4	S3?	DFG SSC USFS:S	Found in humid forests, woodlands, grasslands, and streamsides in northwestern California. Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season. Integration zone between northern and California subspecies is between Manchester and Elk.	MEN, HB	EW	No
Rana aurora draytonii	California red-legged frog	Threatened	None	G4T2T3	S2S3	DFG SSC IUCN:VU	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	MEN, SO, CL	EW	No
Rana boylii	foothill yellow-legged frog	None	None	G3	S2S3	BLM:S DFG SSC IUCN:NT USFS:S	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying.	MEN, SO, CL, HB, TR	EW	No
Ambystoma californiense	California Tiger Salamander	Endangered	Threatened				California salamanders are found in annual grassland habitat and in the grassy understory of valley-foothill hardwood habitat. It's uncommonly found in riparian areas. They like to nest in California ground squirrel holes.	SO	E	No
Emys marmorata marmorata	western pond turtle	None	None	G3G4	S3	BLM:S DFG SSC IUCN:VU USFS:S	Former scientific name: *Clemmys marmorata marmorata*. Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. Nests sites may be found up to 0.5 km from water.	MEN, SO, CL, HB, TR	EW	No
BIRDS										
Pelecanus occidentalis californicus	California brown pelican (nesting colony & communal roosts)	Delisted	Delisted	G4T3	S1S2	DFG FP	Most colonies are on offshore islands free of mammalian predators and human disturbance, are of sufficient elevation to prevent flooding of nests, and are associated with an adequate and consistent food supply. Brown pelicans roost communally, generally in areas that are near adequate food supplies, have some type of physical barrier to predation and disturbance, and provide some protection from environmental stresses such as wind and high surf.	MEN, SO, HB	W	No
Phalacrocorax auritus	double-crested cormorant (nesting colony)	None	None	G5	S3	DFG WL IUCN:LC	Rookery site: colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	MEN, SO, HB	EW	No
Accipiter cooperii	Cooper's hawk (nesting)	None	None	G5	S3	DFG WL IUCN:LC	Nesting: woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	MEN, SO, CL, HB, TR	EW	No
Accipiter gentilis	northern goshawk (nesting)	None	None	G5	S3	BLM:S CDF:S DFG SSC IUCN:LC USFS:S	Nesting: within and in vicinity of coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees. Northern goshawks typically nest in conifer forests containing large trees and an open understory on the west slope of the Sierra. There is historic nesting in Big River and Pudding Creek. Winter migrant on the coast.	MEN, HB, TR, CL	EW	No
Accipiter striatus	sharp-shinned hawk (nesting)	None	None	G5	S3	DFG WL	Nesting: ponderosa pine, black oak, riparian deciduous, mixed conifer and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes, with plucking perches are critical requirements. Nests usually within 275 ft. of water. Nests in dense, even-aged, single-layered forest canopy, usually nests in dense, pole and small-tree stands of conifers, which are cool, moist, well shaded, with little ground-cover, near water.	MEN, SO, CL, HB, TR	EW	No
Aquila chrysaetos	golden eagle (nesting & wintering)	None	None	G5	S3	CDF:S DFG:FP DFG WL IUCN:LC USFWS:BCC	Nesting and wintering: rolling foothills mountain areas, sage-juniper flats, desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	MEN, SO, CL, HB, TR	EW	No
Buteo regalis	ferruginous hawk (wintering)	None	None	G4	S3S4	DFG WL IUCN:LC USFWS:BCC	Usually east of the coastal belt. uncommon migrant in coastal Mendocino County seen in open areas such as Bald Hill and Manchester. Feeding habitat in open, treeless areas. Does not breed in California.	MEN, SO, CL, HB, TR	EW	No
Circus cyaneus	Northern harrier (nesting)	None	None	G5	S3	DFG SSC IUCN:LC	Northern harriers prefer sloughs, wet meadows, marshlands, swamps, prairies, plains, grasslands, and shrublands and perch on structures such as fence posts. Nesting habitat: nest on the ground, usually near water, or in tall grass, open fields, clearings, or on the water on a stick foundation, willow clump, or sedge tussock. Most nests built within patches of dense, often tall, vegetation (e.g., cattails) in undisturbed areas. They usually nest near hunting grounds. Foraging: They need open, low woody or herbaceous vegetation for nesting and hunting.	MEN, SO, CL, HB, TR	EW	No

ATTACHMENT Y

Special-Status Wildlife with Potential Occurrence on the Project Site.										
Scientific name	Common name	Federal Status	State Status	G	S	Organization Code	Habitat	County	East or West of HWY 1	Observed
Elanus leucurus	white-tailed kite (nesting)	None	None	G5	S3	DFG FP IUCN LC	Nesting: rolling foothills/valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland, open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Winter congregation of at least 70 birds seen at Manchester State Park in early 2000's. One nest known from a THP in Albion ~2006; nest was at the edge of conifer forest with no pasture immediately adjacent.	MEN, SO, CL, HB, TR	EW	No
Haliaeetus leucocephalus	bald eagle (nesting & wintering)	Delisted	Endangered	G5	S2	CDF S DFG:FP IUCN:LC USFS:S USFWS:BCC	Nesting and wintering: ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mi of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter. Known from winter in Lake Cleone, MacKerricher State Park and Little River.	MEN, SO, CL, HB, TR	EW	No
Pandion haliaetus	Osprey (nesting)	None	None	G5	S3	CDF S DFG:WL IUCN LC	Nesting: ocean shore, bays, fresh-water lakes, and larger streams. Large nests built in tree-tops within 15 miles of good fish-producing body of water. Flattened portions of partially broken off snags, poles, rocks, cliff pinnacles, cacti, and numerous man-made structures such as utility poles and duck blinds are used for nests. Furthest nest inland may be McGuire's Pond.	MEN, SO, CL, HB, TR	EW	No
Falco columbarius	Merlin (wintering)	None	None	G5	S3	DFG WL IUCN LC	General wintering habitat: Uncommon winter migrants on the coast. Habitat apparently similar to breeding habitat (open forest and grasslands). Regularly hunts prey (e.g., shorebirds) concentrated on tidal flats. Often winters in cities throughout its range, where frequently perches on buildings, power poles, and tall trees. Also winters in open woodland, grasslands, open cultivated fields, marshes, estuaries, and seacoasts. Frequents open habitats at low elevation near water and tree stands.	MEN, SO, CL, HB, TR	EW	No
Falco peregrinus anatum	American peregrine falcon (nesting)	Delisted	Delisted	G4T3	S2	CDF S DFG:FP USFWS:BCC	Nesting: near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also human-made structures. Nest consists of a scrape on a depression or ledge in an open site.	MEN, SO, CL, HB, TR	EW	No
Charadrius alexandrinus nivosus	western snowy plover (nesting)	Threatened	None	G4T3	S2	ABC WLBCC DFG:SSC USFWS:BCC	Nesting: federal listing applies only to the pacific coastal population. Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting. Sand spits, dune-backed beaches, unvegetated beach strands open areas around estuaries, and beaches at river mouths are the preferred coastal habitats for nesting. Less common nesting habitat includes salt pans, coastal dredged spoil disposal sites, dry salt ponds and salt pond levees and islands.	MEN, SO, HB	EW	No
Haematopus bachmani	Black oystercatcher (nesting)	None	None	G5	S?	IUCN:LC USFWS:BCC	From the Aleutian Islands to Baja California, the forage on intertidal macroinvertebrates along gravel or rocky shores and in the southern part of their range nest primarily on rocky headlands and offshore rocks.	MEN, SO, HB	EW	No
Larus californicus	California gull (nesting)	None	None	G5	S?	DFG WL IUCN LC	Colony nesters and usually occurring on an island or vegetated offshore rock.	MEN, SO, CL, HB, TR	EW	No
Brachyramphus marmoratus	marbled murrelet (nesting)	Threatened	Endangered	G3G4	S1	ABC WLBCC CDF S IUCN EN	Nesting: feeds near-shore; nests inland along coast, from Eureka to Oregon border and from Half Moon Bay to Santa Cruz. Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir. Presence of platforms (flat surface at least four inches in diameter) appears to be the most important stand characteristic for predicting murrelet presence. Stands can be: 1) mature (with or without an old-growth component); 2) old-growth; 3) young coniferous forests with platforms, and 4) include large residual trees in low densities sometimes less than one tree per acre.	MEN, SO, HB	EW	No
Fratercula cirrhata	tufted puffin (nesting colony)	None	None	G5	S?	DFG SSC IUCN LC	Nesting colony: open-ocean bird; nests along the coast on islands, islets, or (rarely) mainland cliffs free of human disturbance and mammalian predators. Nests in burrows or rock crevices when soil or earth is unavailable for burrowing. Occurs year-round offshore near breeding colonies in northern California, but more common in winter. Breeding records from Goat Rock, Mendocino Headlands State Park.	MEN, SO, HB	EW	No
Athene cunicularia	burrowing owl (burrow sites and some winter sites)	None	None	G4	S2	BLM S DFG SSC IUCN LC USFWS:BCC	Burrow sites: open, dry annual or perennial grasslands, deserts and scrublands, and dunes characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	MEN, SO, CL, HB, TR	EW	No
Strix occidentalis caurina	northern spotted owl	Threatened	None	G3T3	S2S3	ABC WLBCC CDF S DFG SSC IUCN NT	Old-growth forests or mixed stands of old-growth and mature trees. Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris, and space under canopy.	MEN, SO, HB	EW	No
Chaetura vauxi	Vaux's swift (nesting)	None	None	G5	S3	DFG SSC IUCN LC	Nesting: redwood, Douglas fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes. The most important habitat requirement appears to be an appropriate nest-site in a large, hollow tree. Forages over most terrains and habitats, often high in the air. Shows an apparent preference for foraging over rivers and lakes.	MEN, SO, CL, HB, TR	EW	No
Selasphorus rufus	rufous hummingbird (nesting)	None	None	G5	S1S2	IUCN LC USFWS:BCC	Breeds in open or shrubby areas, forest openings, yards and parks, and sometimes in forests, thickets, and meadows. Late winter and spring migrant on the California coast. Breeding range from southeast Alaska and as far south as northwestern California.	MEN, SO, CL, HB, TR	EW	No
Progne subis	purple martin	None	None	G5	S3	DFG SSC IUCN LC	Nesting: inhabits woodlands, low elevation coniferous forest of Douglas fir, Ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures such as weep holes in bridges. Nest often located in tall, isolated trees and snags. Nesting on the Mendocino Coast known, in part, from Juan Creek, Ten Mile, Noyo, and Big River, and snags from Ten Mile River to Pudding Creek. Need open foraging habitats.	MEN, SO, CL, HB, TR	EW	No
Dendroica occidentalis	hermit warbler (nesting)	None	None	G4G5	S3?	ABC WLBCC IUCN LC	Breeding range is relatively limited to the Pacific Coast and the Cascade and Sierra Nevada mountain ranges of Washington, Oregon, and California. Some winter along the coastal central and southern California, but most winter primarily in the mountains of western Mexico and Central America. Nesting habitats in Pacific northwest are coniferous forests with a high canopy volume, generally preferring mature stands of pine and Douglas fir. Avoids areas with a high deciduous volume; absent from riparian areas and clearcuts. Birds of coniferous forests; they prefer cool, wet fir forests at elevation, and moist forests of Douglas-fir, hemlock, and western red cedar closer to sea level. Major threat to this species appears to be the degradation of breeding habitat. Not know as frequently nesting on the coast, perhaps more common inland.	MEN, SO, CL, HB, TR	EW	No
Ammodramus savannarum	grasshopper sparrow (nesting)	None	None	G5	S?	DFG SSC IUCN LC	Nesting: dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting. Summer (breeding) resident in Mendocino County known from north of Ten Mile River.	MEN, SO, CL, TR	EW	No
Passerculus sandwichensis alaudinus	Bryant's savannah sparrow (nesting)	None	None	G5T2T3	S2S3	DFG:SSC	California endemic from near Humboldt Bay, Humboldt Co. to Morro Bay, San Luis Obispo Co. Breeds in low tidally influenced habitats in higher parts of pickleweed/saltgrass marshes, adjacent ruderal areas, moist grasslands within and just above the fog belt, bottomlands and dairy pastures in the taller grasses and rushes along roads and fences, and infrequently drier grasslands. In most upland grasslands, it occurs where herbaceous vegetation is relatively short, with no or little woody plant cover. Open areas, whether provided by tidal mudflats or upland interstitial areas between clumps of vegetation, appears to be an important component of occupied habitat.	SO	EW	No
Agelaius tricolor	tricolored blackbird (nesting colony)	None	None	G2G3	S2	ABC WLBCC BLM:S DFG:SSC IUCN:EN USFWS:BCC	Nesting colony: Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, such as cattails and foraging area with insect prey within a few km of the colony. Known inland from McGuire's Pond.	MEN, SO, CL, HB, TR	EW	No
Mammals										
Antrozous pallidus	pallid bat	None	None	G5	S3	BLM S DFG SSC IUCN:LC USFS:S WBWG:H	A wide variety of habitats: deserts, grasslands, shrublands, woodlands and forests from sea level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of the range. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings where there is protection from high temperatures.	MEN, SO, CL, HB, TR	EW	No
Corynorhinus townsendii	Townsend's big-eared bat	None	None	G4	S2S3	BLM S DFG SSC IUCN:LC USFS:S WBWG:H	Generally found in the dry uplands throughout the West, but also occur in mesic coniferous and deciduous forest habitats along the Pacific coast. Unequivocally associated with areas containing caves and cave-analogs for roosting habitat. Requires spacious cavern-like structures for roosting during all stages of its life cycle. Typically, they use caves and mines, but have been noted roosting in large hollows of redwood trees, attics and abandoned buildings, lava tubes, and under bridges. Extremely sensitive to disturbance.	MEN, SO, CL, HB, TR	EW	No
Lasionycteris noctivagans	silver-haired bat	None	None	G5	S3S4	IUCN:LC WBWG:M	Ranges throughout California in coastal and montane forests. May be found anywhere in California during spring and fall migrations. Primarily a forest (tree-roosting) bat associated with north temperate zone conifer and mixed conifer/hardwood forests. Prefers forested (frequently coniferous) areas adjacent to lakes, ponds, and streams. During migration, sometimes occurs in xeric areas. Roosts in dead or dying trees with exfoliating bark, extensive vertical cracks or cavities, rock crevices, and occasionally under wood piles, in leaf litter, under foundations, and in buildings, mines and caves. The primary threat is likely loss of roosting habitat due to logging practices that fail to accommodate the roosting needs	MEN, SO, CL, HB, TR	EW	No

ATTACHMENT Y

Special-Status Wildlife with Potential Occurrence on the Project Site.										
Scientific name	Common Name	Federal Status	State Status	G	S	Organization: Code	Habitat	County	East or West of HWY 1	Observed
Lasiurus blossevillii	western red bat	None	None	G5	S3?	DFG SSC IUCN LC	Locally common in some areas of California from Shasta County south to the Mexican border. California Central Valley is the species' primary breeding region. Species appears to be strongly associated with riparian habitats for roosting and foraging, particularly mature stands/large diameter of cottonwood/sycamore. Roosts in woodland borders, rivers, agricultural areas, and urban areas with mature trees in the foliage of large shrubs and trees, usually sheltering on the underside of overhanging leaves. It often hangs from one foot on the leaf petiole and may resemble a fruit or dead leaf. Rarely observed roosting in mines.	MEN, SO, CL, HB, TR	EW	No
Aplodontia rufa nigra	Point Arena mountain beaver	Endangered	None	G5T1	S1	DFG SSC IUCN LC	[illegible] town of Point Arena. Coastal areas often near springs or seepages: mesic coastal scrub, northern dune scrub, edges of conifer forests, and riparian plant communities. North facing slopes of ridges and gullies with friable soils and thickets of [illegible]	MEN	EW	No
Arborimus pomo	Sonoma tree vole	None	None	G3	S3	DFG SSC IUCN NT	Species split into red tree vole and Sonoma tree vole, approximate boundary between two species is Klamath River. Inhabits north coast fog belt from Oregon border to Sonoma Co. In old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats. Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of pine, grand fir, hemlock or spruce.	MEN, SO, HB, TR	EW	No
Martes americana humboldtensis	Humboldt marten	None	None	G5T2T3	S2S3	DFG SSC USFS:S	Endemic to the coastal forests of northwestern California with a historical range described as "the narrow northwest humid coast strip, chiefly within the redwood belt" from the Oregon border to northern Sonoma county. However, the one known remnant Humboldt marten population occurs in the north-central portion of the described range in an area dominated by Douglas-fir and tanoak. Typically associated with closed-canopy, late-successional, mesic coniferous forests with complex physical structure near the ground. Very rare on the Mendocino coast.	MEN, HB	EW	No
Martes pennanti (pacifica) DPS	Pacific fisher	Candidate	None	G5	S2S3	BLM:S DFG:SSC USFS:S	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Use cavities, snags, logs and rocky areas for cover and denning. Need large areas of mature, dense forest. Very rare on the Mendocino coast.	MEN, SO, CL, HB, TR	EW	No
Arctocephalus townsendi	Guadalupe fur-seal	Threatened	Threatened	G1	S1	DFG FP IUCN NT	Solitary, non-social "eared" seals breed in the tropical waters off southern California/Mexico region but have been seen on rare occasion off Mendocino.	MEN, SO	W	No
Callorhinus ursinus	northern fur-seal	None	None	G3	S1	IUCN:VU	Mostly oceanic seal ranging throughout the Pacific Rim, from Japan to the Channel Islands. Pacific rookeries in the Channel and Farallon Islands. Infrequent visitor to the Mendocino Coast. One was stranded on Albion flat in 2013 and rescued by the Marine Mammal Center.	MEN, SO, HB	W	No
Canis lupis	gray wolf	Federal Endangered, potential delisting	endangered				[illegible] of food.	TR	E	No
Eumetopias jubatus	Steller (northern) sea-lion	Threatened	None	G3	S2	IUCN:EN MMC:SSC	Range throughout the North Pacific Rim from Japan to central California. Unlike California sea lions, Stellers tend to remain off shore or haul out in unpopulated areas. Breeding rookery on Año Nuevo Island.	MEN, SO, HB	W	No
Key for Counties: MEN: Mendocino, SO: Sonoma, CL: Clear Lake, HB: Humboldt, TR: Trinity										

ATTACHMENT Y

Taxon By Family	Common Name
FERNS AND ALLIES	
Blechnaceae	
Woodwardia fimbriata	giant chain fern
Dennstaedtiaceae	
Pteridium aquilinum var. pubescens	bracken; western bracken; hairy bracken fern
Dryopteridaceae	
Athyrium filix-femina	lady fern
Dryopteris arguta	western wood fern; shield fern
Polystichum munitum	western sword fern
Equisetaceae	
Equisetum telmateia ssp. braunii	giant horsetail
GYMNOSPERMS	
Cupressaceae	
Hesperocyparis macrocarpa	Monterey cypress
Pinaceae	
Pinus contorta	lodgepole pine
DICOTS	
Anacardiaceae	
Toxicodendron diversilobum	poison oak
Apiaceae	
Conium maculatum	poison hemlock
Daucus pusillus	rattlesnake weed, American wild carrot
Heracleum maximum	common cow parsnip
Oenanthe sarmentosa	Pacific oenanthe, water parsely
Araliaceae	
Hedera helix	English ivy
Asteraceae	
Achillea millefolium	yarrow
Baccharis pilularis var. consanguinea	coyote brush
Carduus pycnocephalus	Italian thistle
Cirsium vulgare	bull thistle
Gamochaeta ustulata	featherweed
Hypochaeris glabra	smooth cat's ear
Hypochaeris radicata	rough cat's ear, hairy cat's ear
Leontodon saxatilis	lesser hawkbit
Leucanthemum vulgare	ox eye daisy, oxeye daisy
Matricaria discoidea	pineapple weed
Pseudognaphalium luteoalbum	Jersey cudweed
Senecio glomeratus	cut-leafed erechtites, New Zealand fireweed
Soliva sessilis	common soliva, Field burrweed
Sonchus asper ssp. asper	prickly sow thistle
Sonchus oleraceus	common sow thistle
Brassicaceae	
Brassica rapa	field mustard, turnip
Nasturtium officinale	water cress
Raphanus sativus	wild radish
Caprifoliaceae	
Sambucus racemosa var. racemosa	red elderberry
Caryophyllaceae	
Cerastium fontanum ssp. vulgare	common chickweed

ATTACHMENT Y

Taxon By Family	Common Name
Cerastium glomeratum	mouse-ear chickweed
Spergula arvensis ssp. arvensis	stickwort, sandwort, corn spurry
Spergularia rubra	red sandspurry
Stellaria borealis ssp. sitchana	northern starwort, Northern bogwort
Stellaria media	common chickweed
Convolvulaceae	
Calystegia purpurata ssp. purpurata	Purple western morning glory, Smooth western morning glory
Cucurbitaceae	
Marah oregana	coast wild-cucumber; wild cucumber, coast manroot
Fabaceae	
Acmispon americana var. americana	Spanish clover, American bird's foot trefoil
Acmispon parviflorus	Hill lotus
Lotus corniculatus	bird's-foot trefoil, Birdfoot deervetch
Lupinus rivularis	Riverbank lupine
Medicago polymorpha	California burclover, Bur clover, Bur medic
Trifolium campestre	hop clover, Field clover, Low hop clover
Trifolium dubium	shamrock, Shamrock clover, Suckling clover
Trifolium glomeratum	Clustered clover
Trifolium hirtum	rose clover
Trifolium repens	white clover
Trifolium striatum	knotted clover
Trifolium subterraneum	subterranean clover
Vicia gigantea	giant vetch
Vicia sativa	vetch
Garryaceae	
Garrya elliptica	coast silk tassel
Geraniaceae	
Geranium carolinianum	Carolina geranium
Grossulariaceae	
Ribes sanguineum var. glutinosum	pink-flowering currant
Lamiaceae	
Prunella vulgaris var. lanceolata	lance-leaf self-heal
Stachys rigida var. rigida	rigid hedge-nettle
Stachys ajugoides	ajuga hedge nettle, bugle hedgenettle
Linaceae	
Linum bienne	pale flax, narrow leaved flax
Lythraceae	
Lythrum hyssopifolia	hyssop loosestrife
Myricaceae	
Morella californica	wax-myrtle
Onagraceae	
Epilobium ciliatum ssp. ciliatum	willowherb
Castilleja affinis ssp. affinis	coast Indian paintbrush, Wight's Indian Paint brush
Oxalidaceae	
Oxalis corniculata	creeping woodsorrel, yellow sorrel
Papaveraceae	
Eschscholzia californica	California poppy
Phrymaceae	
Mimulus aurantiacus	sticky monkeyflower
Mimulus guttatus	common yellow monkeyflower, seep monkey flower

Taxon By Family	Common Name
Plantaginaceae	
Plantago coronopus	cut leaf plantain, buckhorn plantain
Plantago erecta	California plantain dotseed plantain
Plantago lanceolata	English plantain, ribwort, narrow leaved plantain, ribgrass
Polemoniaceae	
Navarretia squarrosa	skunkweed
Polygonaceae	
Rumex acetosella	common sheep sorrel
Rumex crispus	curly dock
Rumex transitorius	willow dock
Portulacaceae	
Claytonia perfoliata	miner's lettuce
Primulaceae	
Lysimachia arvensis	scarlet pimpernel, poor man's weathervane
Rhamnaceae	
Ceanothus thyrsiflorus var. griseus	Carmel ceanothus
Frangula californica	California coffeeberry
Frangula purshiana	cascara buckthorn
Rosaceae	
Cotoneaster franchetii	Francheti cotoneaster
Fragaria chiloensis	beach strawberry
Fragaria vesca	woodland strawberry, wood strawberry, California Strawberry
Rosa nutkana var. nutkana	Nootka rose
Rubus armeniacus	Himalaya-berry, Himalayan blackberry
Rubus parviflorus	thimbleberry
Rubus ursinus	California blackberry
Rubiaceae	
Galium aparine	common bedstraw; cleavers; goose-grass
Sherardia arvensis	field madder
Scrophulariaceae	
Scrophularia californica	California figwort, California bee plant
Urticaceae	
Urtica dioica ssp. gracilis	American stinging nettle
MONOCOTS	
Cyperaceae	
Carex gynodynama	wonder woman sedge, Olney's hairy sedge
Carex harfordii	Harford's sedge, Monterey sedge
Carex obnupta	slough sedge
Carex subbracteata	small bract sedge
Cyperus eragrostis	tall flatsedge
Iridaceae	
Iris douglasiana	Douglas' iris
Sisyrinchium bellum	blue-eyed grass
Sisyrinchium californicum	California golden-eyed grass
Juncaceae	
Juncus bufonius var. occidentalis	round fruited toad rush, Western toad rush
Juncus hesperius	coast or bog rush
Juncus patens	common rush, spreading rush
Poaceae	
Agrostis hallii	Hall's bent grass, Hall redtop

Taxon By Family	Common Name
Aira caryophyllea	silver European hairgrass, hairgrass
Aira praecox	yellow hairgrass, little hairgrass
Anthoxanthum odoratum	sweet vernal grass
Avena barbata	slender wild oat
Briza maxima	big quaking grass; rattlesnake grass
Briza minor	little quaking grass; quaking grass
Bromus carinatus	California brome
Bromus maritimus	maritime brome
Bromus diandrus	ripgut brome; ripgut
Bromus hordeaceus	soft chess
Cortaderia jubata	Andes grass, purple pampass grass
Dactylis glomerata	orchard-grass
Danthonia californica	California oatgrass, wild oatgrass
Elymus glaucus ssp. glaucus	blue wildrye; blue wild rye
Festuca perennis	Italian rye grass
Festuca rubra	red fescue
Holcus lanatus	velvet grass
Phalaris sp.	
Poa annua	annual blue grass
Rytidosperma penicillatum	purple awned wallaby grass: hairy oat grass
Festuca bromoides	brome fescue
Festuca myuros	rattail sixweeks grass

ENVIRONMENTALLY SENSITIVE HABITAT AREAS DEFINED

Definition of Environmentally Sensitive Habitat Area

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

> "any area in which plant or animal life or their habitats are **either** rare **or** especially valuable because of their special nature or role in an ecosystem **and** which could be easily disturbed or degraded by human activities and developments".
>
> **[emphasis given]**

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

Wetland ESHAs

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

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

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

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

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

soil reduction processes that produce wetland conditions.

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

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

1) Deep-rooted trees (e.g., willows), capable of persisting in the presence of surface water or in dry conditions by tapping into deep groundwater sources; and,

2) Wetland-classified plants that are also salt-tolerant (e.g., alkali heath) can grow in the presence of either wetland conditions or saline soil conditions, but not necessarily both.

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

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

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

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

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

Areas identified as potential wetlands by the presence of wetland plants are also examined for indicators of wetland hydrology. Positive indicators of wetland hydrology can include direct evidence (primary indicators) such as surface water, saturation, sediment deposits, and surface soil cracks, or indirect evidence (secondary indicators) such as drainage patterns and water-stained leaves.

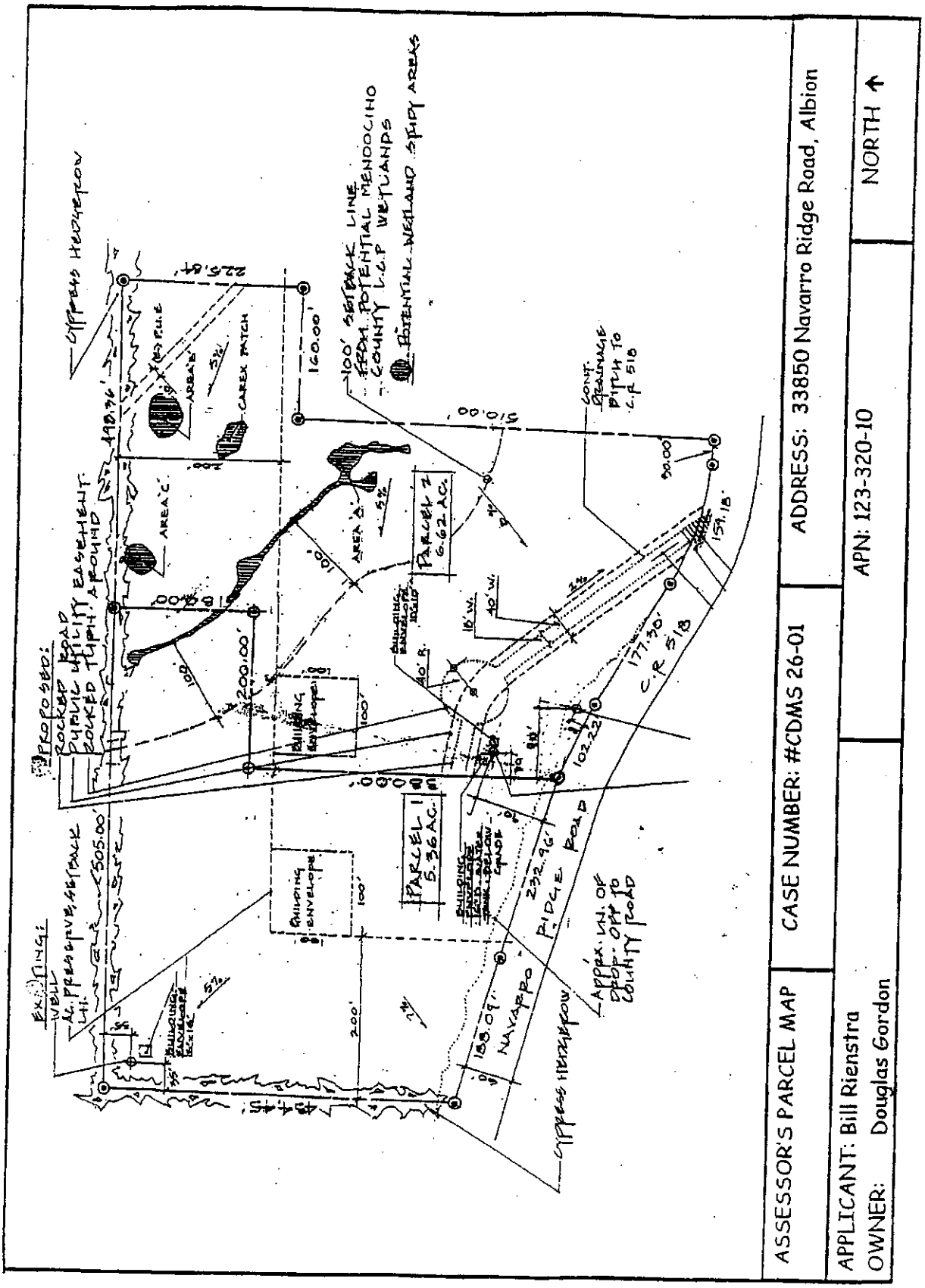
Riparian ESHAs

The Mendocino County LCP recognizes drainages with associated riparian vegetation to be ESHAs. The Technical Criteria (CCC 1981) defines riparian vegetation as:

> *"that association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other freshwater bodies. Riparian plant species and wetland plant species either require or tolerate a higher level of soil moisture than dryer upland vegetation, and are therefore generally considered hydrophytic."*

Special Status Species ESHAs

Special status species and their habitats are defined as ESHAs by the CCA and Mendocino County LCP. Special-status species include those species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing by the USFWS or CDFW. In addition, CDFW Species of Special Concern are given special consideration under the California Environmental Quality Act (CEQA). Species of Concern may only be protected as ESHAs if they are ranked by CDFW as imperiled in California (S3 or less). Plant species on California Native Plant Society (CNPS) Lists 1 or 2 are also considered special status species and are protected as ESHAs.



ATTACHMENT Z