



COUNTY OF MENDOCINO
DEPARTMENT OF PLANNING AND BUILDING SERVICES

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FAX TRANSMITTAL & INVOICE

TO:

NAME: *Shed Van Bueren*

ADDRESS:

TELEPHONE#: FAX#: *964-7272*

MESSAGE:

- No. Geo-Tech Map since it was a feasibility study only
- The botanical map w/ buffers will be a condition of approval - note that the tentative has buffers -
- 7P ✓

FROM: *May Jynn*

INVOICE:

DATE:	DOCUMENT:	# OF PAGES:	TOTAL DUE:
<i>5-18-01</i>		<i>12 + cover</i>	

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Send payment along with this cover sheet to the Department of Planning and Building Services, 501 Low Gap Road, Room 1440, Ukiah, CA 95482.

Jim Glomb

Geotechnical and Environmental Consulting, Inc.

152 Weeks Way, Sebastopol, CA 95472

Office 707/237-2703, Fax 707/237-2659

Email jim@jimglomb.com

October 20, 2008

Project 1121

Ernest Sosa

1124 Rosario Drive

Topanga, CA 90290

RE: Geotechnical Feasibility Evaluation

Proposed Bridge, Driveways and Building Site

37995 North Highway 1

Westport, CA

Dear Mr. Sosa:

Introduction

At your request we performed a geotechnical evaluation of the subject property at 37995 North Highway 1 in Westport, California. The purpose of our work was to evaluate the soil and geologic conditions in the area of the proposed building site, driveway and bridge to evaluate the geotechnical feasibility of developing the property.

Scope

The scope of this evaluation was limited to the following:

1. Review of pertinent geotechnical data;
2. Geotechnical reconnaissance and backhoe exploration of the site and vicinity;
3. Discussions regarding geotechnical aspects of the property with you;
4. Preparation of this geotechnical feasibility evaluation report.

It was not within the scope of our work to perform an environmental assessment of the property.

Site Conditions

The ±200 acre subject property is located less than a mile north of the town of Westport and consists of a lower nearly level floodplain for Wages Creek, steep forested slopes and gentle sparsely forested upper slopes. An old metal bridge crosses Wages Creek that flows perennially. The property is accessed by a rough grade driveway leading from Highway 1 and a gravel paved road along Wages Creek. The onsite driveway crosses Wages Creek on a 56 foot long metal bridge. From the bridge crossing the driveway ascends moderate to steep terrain. The driveway has numerous steep inboard side cutslopes and steep outboard side fill slopes generally on the order of a few to 8 feet high.

Geologic Conditions

The subject property is generally underlain by weathered fractured sandstone and siltstone bedrock. The Wages Creek floodplain is underlain by silty and clayey sand alluvium. Site slopes are generally mantled by a few feet of colluvium derived from the bedrock. On steep slopes, these surface soils and weathered near ground surface bedrock are judged to be subject to downslope creep, which is an imperceptibly slow movement of soil downhill due to gravity. Two old deep seated landslides are situated on the steep north facing slope upon which the access road ascends. Signs of recent deep seated landslide movement in the form of tilted trees, open ground cracks and fresh unweathered scarps were not observed. A few localized small-scale shallow recent landslides were observed adjacent to the existing driveway. Driveway cutslopes are very steep and are subject to localized erosion and sloughing.

No active faults were observed on the site and none are known to exist on the site. The active San Andreas Fault is located about 17 kilometers west of the subject property.

Conclusions and Recommendations

Based on our research and site work we conclude and recommend the following:

1. The gentle natural slopes in the planned building area in the upper meadow near the south property boundary are underlain at shallow depths by competent bedrock judged to be suitable for the support of foundations. The planned building site is judged geotechnically suitable and is free of geologic hazards that would preclude development.
2. We understand that the existing driveway will be improved by locally widening the roadway slightly to 22 feet and the surface will be paved with gravel. It is anticipated that widening will require additional inboard side cuts. We recommend that new cuts be laid back to slope angles of about ½:1 (horizontal:vertical) or less and that no new fill be placed on the outboard side of the driveway unless it is placed as engineered fill. We anticipate that old and new cutslopes will undergo localized erosion and sloughing in the future that will require periodic maintenance.
3. The road alignment crosses a few areas of active slumping and debris flows. There is a potential for debris deposition on the roadway in the future that would likely require periodic maintenance and/or graded repairs.
4. The roadway adjacent to a previously identified slump on the downslope side of the ascending driveway about 400 feet west of the bridge was explored. We found shallow bedrock at the outboard edge of the roadway and interpret the slumped material on the slope to be loose sidecast fill from original road grading. This slumping is not expected to effect the roadway.
5. It is recommended that the existing bridge be resupported with engineered foundations. Additional investigation and analysis of the bridge site should be performed to determine the bearing capacities of the underlying earth materials. Based on our preliminary exploration of the abutment areas we conclude that adequate resupport of the existing bridge and the support of any new bridges may be gained by conventional shallow spread footings or piers.

Structural Bridges

The old deep seated landslides mapped on the site did not show signs of recent movement. We judge that the probability of future reactivation of these features is low. The risk of landslide reactivation could be possible displacement of the access road and temporary loss of vehicle access. Reestablishing access could require rerouting or regrading of the driveway. The owner must assume this risk.

Limitations

This report has been prepared for the exclusive use of Ernest Sosa, Loretta Sosa Michielson and their consultants for this site. Our services consist of professional opinions and conclusions developed by a certified engineering geologist in accordance with generally-accepted engineering geologic principles and practices. We provide no other warranty, either expressed or implied. Our conclusions and recommendations are based upon the information provided us regarding the proposed project and professional judgment. Site conditions and cultural features described in the text of this report are those existing at the time of our fieldwork and may not necessarily be the same or comparable at other times.

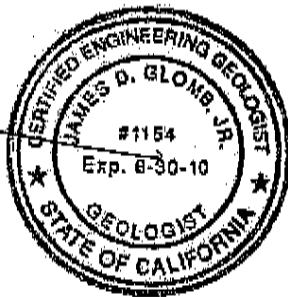
The conditions and cultural features described in the text of this report are those existing at the time of our field reconnaissance on 9/18/08, and may not necessarily be the same or comparable at other times.

The scope of our services did not include an environmental assessment or an investigation of the presence or absence of hazardous, toxic or corrosive materials in the soil, surface water, groundwater, air, on or below, or around the site, nor did it include an evaluation or investigation of the presence or absence of wetlands.

We trust this provides the information you require at this time. If you have questions or wish to discuss this further, please call.

Yours very truly,
James D. Glomb Consulting, Inc.

James D. Glomb
James D. Glomb
Engineering Geologist, C.E.G. 1154





Trillium Botanical Consulting

547 Cape Road
Mckinleyville, CA 95519
707-633-6026

Memo

To County of Mendocino
Department of Planning and Building
Services
501 Low Gap Rd., Room 1440
Ukiah, Ca 95482

File no Sosa APN 013-240-30
37995 North Highway 1 (So
Westport, CA 95437

From Halleh Paynard
Trillium Botanical Consulting

cc Amy Wynn

Date 4 September 2008

Subject Addendum to botanical survey for proposed coastal development minor subdivision permit located at 37995 North Highway 1, Westport, CA 95437; APN 013-240-30

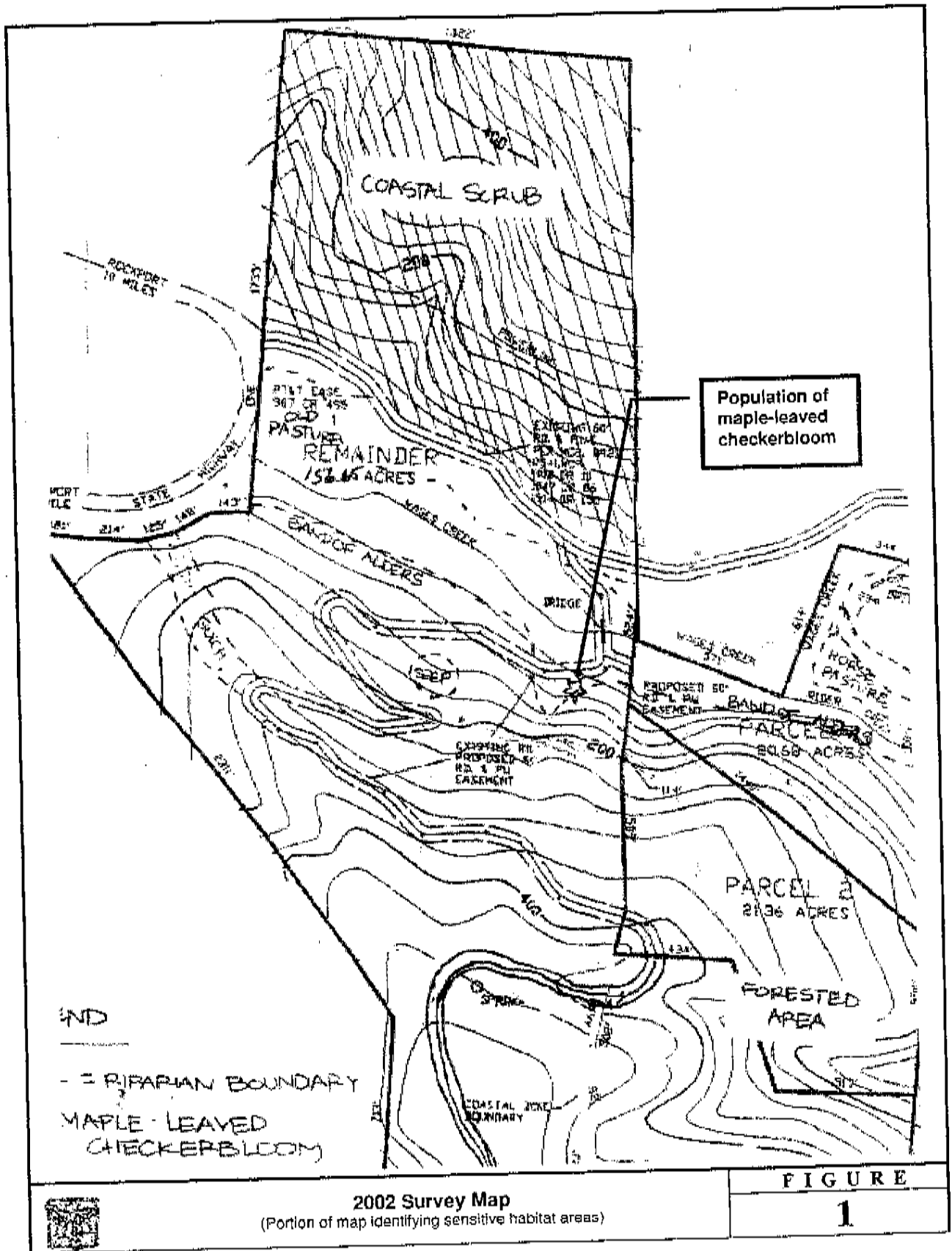
To Department of Planning and Building Staff,

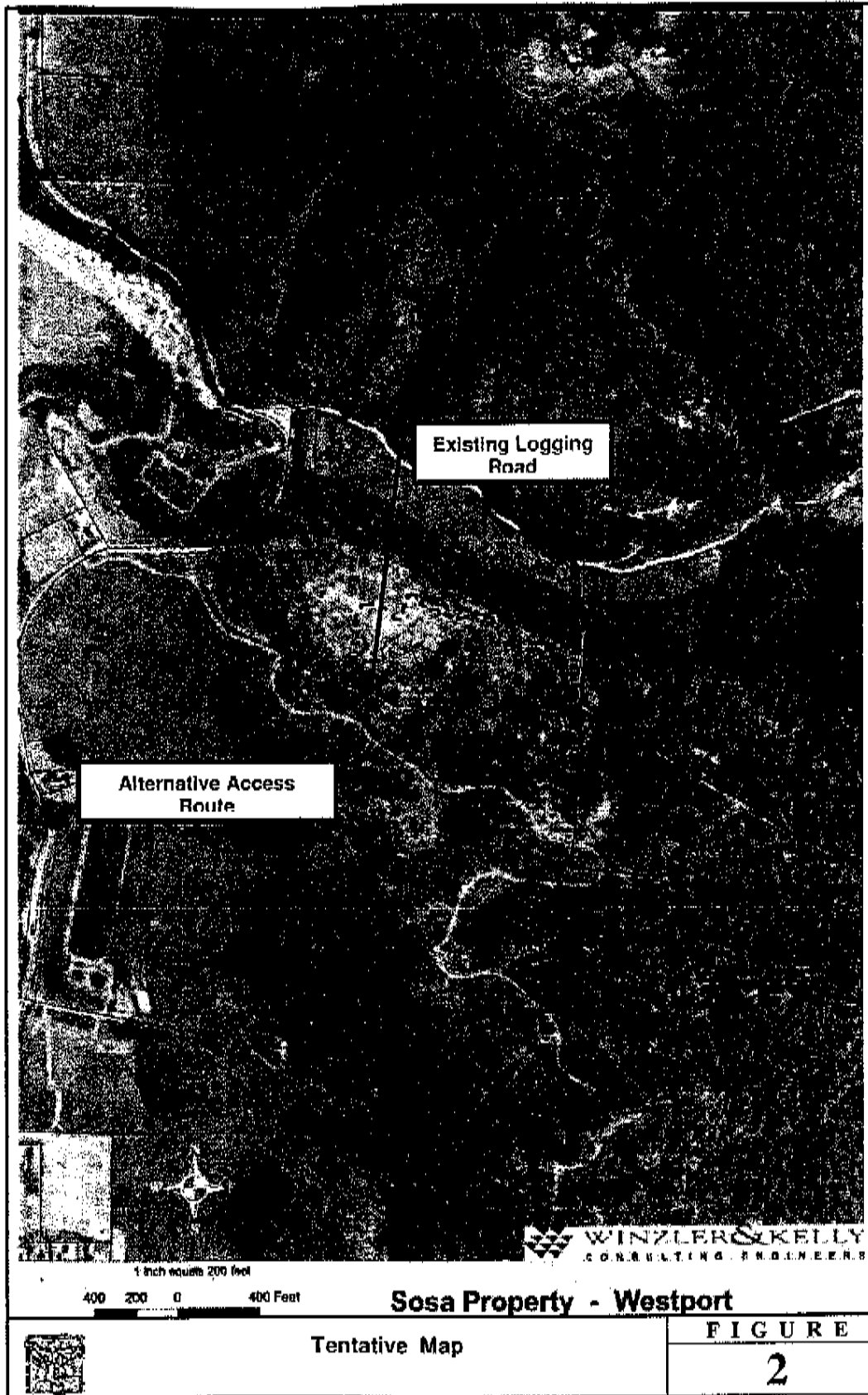
This addendum to the *Botanical Survey as Required for Proposed Coastal Development Minor Subdivision Permit Located at 37995 North Highway 1 Westport, CA 95437* report dated 2 August 2002 has been prepared to reflect any special-status plant listing changes and to confirm that the resources at the site have not changed significantly since the time of the botanical surveys. For details on existing conditions and survey methodology, please refer to the botanical report.

Botanical surveys were conducted by Trillium Botanical Consulting (TBC) within the subject parcel on 21 June 2002, 18 July 2002 and 30 July 2002. During these surveys a population of maple-leaved checkerbloom, a then CNPS List 1B.2 plant (now CNPS List 4.2) was identified along the logging road near Wages Creek (Figure 1). TBC proposed to protect the plants by metal stakes and flagging during road maintenance activities. An isolated wetland (dominated by slough sedge [*Carex obtusa*]) and riparian habitats associated with Ryder Creek and Wages Creek were also identified and flagged during these visits. A 100-foot buffer area was recommended from the edge of these Environmentally Sensitive Habitat Areas (ESHAs).

Since the 2002 survey, the application has been revised from a 4-parcel to a 3-parcel division; the new proposal requests one approximate 156.65-acre parcel on the western portion of the property and two parcels on the eastern portion, approximately 20.60 and 21.36 acres each (Figure 2).

In order to provide access to the building envelopes located on the 156.65-acre parcel and Proposed Parcel 2 (21.36-acres), the existing logging road along with its existing bridge may be improved. However, because of costs associated with the length of the road, road re-alignment in a couple of places and required work within a riparian corridor associated with Wages Creek (the existing bridge may be





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undersized for a 100-year flood, and therefore may need to be upsized), a potential road easement located along the neighboring parcel to the west (Figure 2) is also under consideration. At this time, however, while this alternative access is desirable, it is not currently available.

Site Re-visit and Update

The project area was revisited on 5 July 2008 in order to survey the proposed subdivision areas for special-status plant species and to confirm that the resources at the site have not changed significantly since the time of the botanical surveys. The alternative access route located along the neighboring parcel to the west (Figure 2) was also surveyed by TBC on this date. Botanist Playalina Nelson additionally conducted an early season survey along this access route on 30 May 2008.

The dominant vegetation communities that occur within the project area include nonnative grassland, red alder riparian forest, north coast riparian scrub, north coast coniferous forest, and coastal bluff scrub. Red alder riparian forest and north coast riparian scrub are considered special status habitats within the California Natural Diversity Database RareFind 3¹ (CNDDDB). These plant communities meet the definition of an ESHA, as they are deemed rare, threatened or endangered under Mendocino County's Local Coastal Plan (LCP). Accordingly, any development within the red alder riparian forest, north coast riparian scrub and associated wetland would need to be addressed with suggestions for potential mitigations to reduce any potential impacts to a level that is less than significant.

According to the California Native Plant Society's (CNPS) Electronic Inventory of Rare or Endangered Vascular Plants of California² and the CNDDDB, the following special-status species have high and moderate potential to occur within the proposed project area based on the quadrangles (nine quad search), elevation range, and habitats wherein they occur (Table 1).

Table 1. Special-Status Plant Species with High and Moderate Potential to occur within the Proposed Minor Subdivision Project Area.

Scientific Name	Common Name	Listing	Habitat
<i>Agrostis blasdalei</i>	Blasdale's bent grass	1B.2	Coastal bluff scrub; Coastal dunes; Coastal prairie
<i>Angelica lucida</i>	sea-watch	4.2	Coastal bluff scrub; Coastal dunes; Coastal scrub; Marshes and swamps (coastal salt)
<i>Astragalus agnicidus</i>	Humboldt County milk-vetch	1B.1/SE	Broadleaved upland forest; North Coast coniferous forest/openings, disturbed areas, sometimes roadsides
<i>Blennosperma nanum</i> var. <i>robustum</i>	Pt. Reyes blennosperma	1B.2/SR	Coastal prairie; Coastal scrub
<i>Calamagrostis bolanderi</i>	Bolander's reed grass	4.2	Bogs and fens; Broadleaved upland forest; Closed-cone coniferous forest; Coastal scrub; Meadows and seeps; Marshes and swamps; North Coast coniferous forest /mesic
<i>Calamagrostis crassiglumis</i>	Thurber's reed grass	2.1	Coastal scrub(mesic); Marshes and

¹ California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDDB). 2008. RareFind 3.0.5. California Department of Fish and Game. Sacramento, CA

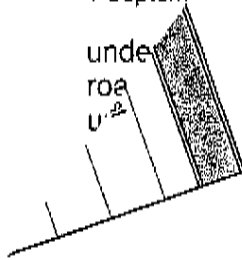
² California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08c). California Native Plant Society. Sacramento, CA. Accessed on <http://www.cnps.org/inventory>

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Scientific Name	Common Name	Listing	Habitat
			swamps (freshwater)
<i>Calamagrostis foliosa</i>	leafy reed grass	4.2/SR	Coastal bluff scrub; North Coast coniferous forest/rocky
<i>Calandrinia breweri</i>	Brewer's calandrinia	4.2	Chaparral; Coastal scrub/sandy or loamy, disturbed sites and burns
<i>Calystegia purpurata</i> ssp. <i>saxicola</i>	coastal bluff morning glory	1B.2	Coastal dunes; Coastal scrub; North Coast coniferous forest
<i>Campanula californica</i>	swamp harebell	1B.2	Bogs and fens; Closed-cone coniferous forest; Coastal prairie; Meadows and seeps; Marshes and swamps(freshwater); North Coast coniferous forest
<i>Carex lenticularis</i> var. <i>limnophila</i>	lagoon sedge	2.2	Bogs and fens; Marshes and swamps; North Coast coniferous forest/shores, beaches; often gravelly
<i>Carex lyngbyei</i>	Lyngbye's sedge	2.2	Marshes and swamps (brackish or freshwater)
<i>Carex saliniformis</i>	deceiving sedge	1B.2	Coastal prairie; Coastal scrub; Meadows and seeps; Marshes and swamps (coastal salt)
<i>Carex viridula</i> var. <i>viridula</i>	green yellow sedge	2.3	Bogs and fens; Marshes and swamps (freshwater); North Coast coniferous forest (mesic)
<i>Castilleja affinis</i> ssp. <i>littoralis</i>	Oregon Coast Indian paintbrush	2.2	Coastal bluff scrub; Coastal dunes; Coastal scrub/sandy
<i>Castilleja mendocinensis</i>	Mendocino Coast Indian paintbrush	1B.2	Coastal bluff scrub; Closed-cone coniferous forest; Coastal dunes; Coastal prairie; Coastal scrub
<i>Chorizanthe howellii</i>	Howell's spineflower	1B.2/FE/ST	Coastal dunes; Coastal prairie; Coastal scrub/sandy, often disturbed areas
<i>Clarkia amoena</i> ssp. <i>whitneyi</i>	Whitney's farewell to spring	1B.1	Coastal bluff scrub; Coastal scrub
<i>Coptis laciniata</i>	Oregon goldthread	2.2	Meadows and seeps; North Coast coniferous forest/streambanks/mesic
<i>Erythronium revolutum</i>	coast fawn lily	2.2	Bogs and fens; Broadleaved upland forest North Coast coniferous forest/mesic, streambanks
<i>Hesperervax sparsiflora</i> var. <i>brevifolia</i>	short-leaved evax	2.2	Coastal bluff scrub (sandy); Coastal dunes
<i>Horkelia marinensis</i>	Pt. Reyes horkelia	1B.2	Coastal dunes; Coastal prairie; Coastal scrub /sandy
<i>Leptosiphon acicularis</i>	bristly linanthus	4.2	Chaparral; Cismontane woodland; Coastal prairie; Valley and foothill grassland
<i>Lilium maritimum</i>	coast lily	1B.1	Broadleaved upland forest; Closed-cone coniferous forest; Coastal prairie; Coastal scrub; Marshes and swamps(freshwater); North Coast coniferous forest/sometimes roadside
<i>Lotus formosissimus</i>	harlequin lotus	4.2	Broadleaved upland forest ; Coastal bluff scrub; Closed-cone coniferous forest; Cismontane woodland; Coastal prairie; Coastal scrub; Meadows and seeps; Marshes and swamps; North Coast coniferous forest; Valley and foothill grassland/wetlands, roadsides
<i>Lycopodium clavatum</i>	running-pine	2.3	Lower montane coniferous forest (mesic); Marshes and swamps; North

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4 Septemr



	Common Name	Listing	Habitat
	white-flowered rein orchid	1B.2	Coast coniferous forest (mesic)/often edges, openings, and roadsides
	Nodding semaphore grass	4.2	Broadleafed upland forest; Lower montane coniferous forest; North Coast coniferous forest/sometimes serpentin
	white beaked rush	2.2	Lower montane coniferous forest; Meadows and seeps; North Coast coniferous forest; Riparian forest/mesi
<i>Sidalcea malachroides</i>	Maple-leaved checkerbloom	4.2	Bogs and fens; Meadows and seeps; Marshes and swamps; (freshwater)
<i>Stellaria littoralis</i>	beach starwort	4.2	Broadleafed upland forest, Coastal prairie coastal scrub, North Coast coniferous forest/ often in disturbed areas
<i>Thermopsis robusta</i>	robust false lupine	4.2	Bogs and fens; Coastal bluff scrub; Coastal dunes; Coastal scrub; Marshes and swamps
<i>Triquetrella californica</i>	Coastal triquetrella	1B.2	Broadleafed upland forest; North Coast coniferous forest
<i>Usnea longissima</i>	long beard lichen	1B.2	Coastal bluff scrub; Coastal scrub/soil
<i>Veratrum fimbriatum</i>	fringed-false hellebore	S1.1	North Coast coniferous forest, closed cone coniferous forest
		4.3	Bogs and fens; Coastal scrub; Meadow and seeps; North Coast coniferous forest/mesic

CNPS Listing

1A=Presumed extinct

1B= Rare or endangered in California and elsewhere

2= Rare or endangered in California, but more common elsewhere

3= Review List-Plant for which we need more information

4= Plants with limited Distribution- Watch List

.1= Seriously endangered in California; .2= Fairly endangered in California; .3= Not very endangered in California

Federal Status

FE = Federal Endangered

FT = Federal Threatened

State/CDFG Status

SE = State Endangered

ST = State Threatened

SR= State Rare

State Rank

S1.1= Very Threatened

The population of maple-leaved checkerbloom identified during the 30 July 2002 survey along the logging road was not re-identified during the 5 July 2008 survey. Since the 2002 survey, maple-leaved checkerbloom was de-listed from its CNPS list 1B.2 status to a CNPS List 4.2 (limited distribution-watch list) species. Very few of the plants constituting List 4 meet the definitions of Section 1901, Chapter 10 of the Native Plant Protection Act or Sections 2062 and 2067 of the California Fish and Game Code, and few, if any, are eligible for state listing. List 4 plants are also not required to be fully considered during the preparation of environmental documents relating to the California Environmental Quality Act.

Harlequin lotus (*Lotus formosissimus*) was not included in the original scoping list as it has only recently been added as a CNPS List 4.2 species. Harlequin lotus is a dicot, perennial herb that is found along the western coast of California from San Luis Obispo County, north to Del Norte County. This lotus species is associated with a variety of habitats (Table 1) and is threatened by development, grazing, feral pigs, habitat alteration, and competition¹.

In addition to its listing status, harlequin lotus is also of concern due to its association with the federally endangered lotis blue butterfly (*Lycaeides argyrognomon lotis*). While the larval food plant of this butterfly has not been positively identified,

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circumstantial evidence suggests that *Lotus formosissimus* is the prime candidate³. Historically the lotis blue butterfly has been found in wet meadows and sphagnum-willow bogs found at several coastal localities in Mendocino, northern Sonoma and possibly northern Marin Counties. Today this butterfly is known only from a sphagnum bog located in pygmy forest habitat that is approximately 4.3 kilometers north of the town of Mendocino⁴.

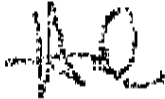
A population of harlequin lotus (approximately 30 plants) was identified near the alternative access route within the neighboring parcel to the west. These plants occur well beyond (greater than 100 feet) of the disturbance area associated with road creation and maintenance activities.

In addition, the habitat wherein the plants occur (nonnative grassland) is not significant habitat for the lotis blue butterfly, as the butterfly is associated with wet coastal meadows and sphagnum bogs.

No additional special-status plant species were identified during the 2008 site re-visit.

Please let me know if further information regarding this matter is needed.

Thank you,

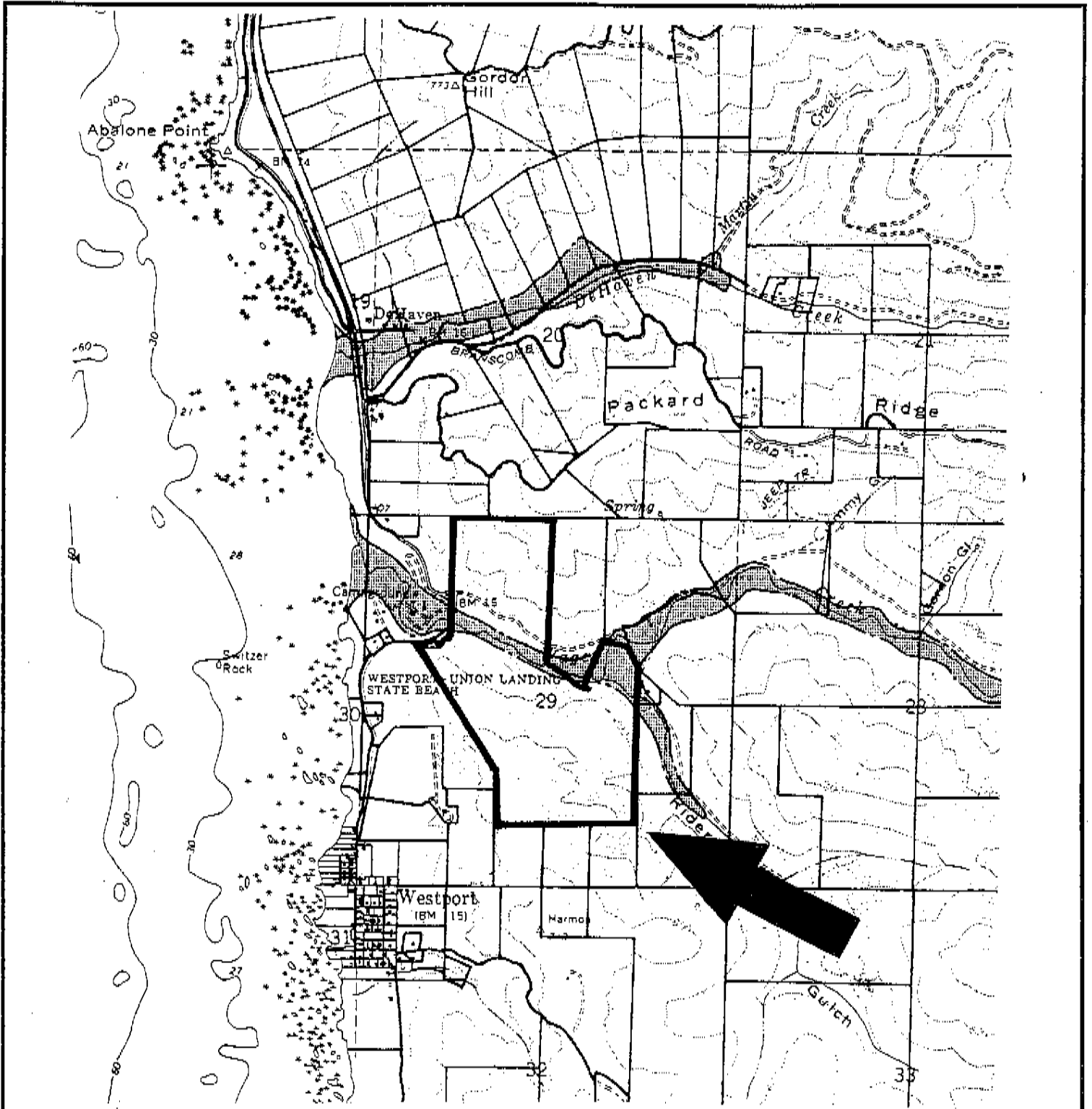


Halleh Paymard
Botanist



Trillium Botanical Consulting

³ U.S. Fish and Wildlife Service (USFWS). 1985. Lotis Blue Butterfly Recovery Plan. U.S. Fish and Wildlife Service, Portland, OR. 46 pp.



CASE NUMBER: # CDMS 2-2002	OWNER/APPLICANT: Sosa, Lorene	AGENT: Ed McKinley
APN: 13-240-30	Flood Plain Map	NORTH ↑ Not to Scale