Staff Report to the Zoning Administrator

Application Number: 08-0089

Applicant: Don Blaha
Owner: Janette Blaha Huls, Elizabeth Young, & Don Blaha
APN: 090-131-15

Agenda Date: October 3, 2008
Agenda Item #: 1.

Time: After 10:00 a.m.

Project Description: Proposal to install a temporary agricultural caretakers mobile home on a vacant lot and to develop an alpaca farm including a barn and paddocks.

Location: Property located on the north side of Santa Cruz Street about 200 feet east from the intersection with Rebecca Drive (225 Santa Cruz Street) near Boulder Creek.

Supervisoral District: 5th District (District Supervisor: Mark Stone)

Permits Required: Residential Development Permit

Staff Recommendation:

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.

- Approval of Application 08-0089, with the exception of the alpaca farm, which we recommend for denial, based on the attached findings and conditions.

Exhibits

A.	Project plans	F.	Zoning map
B.	Findings	G.	Biotic Reports
C.	Conditions	H.	Letter from Registered Forester
D.	Categorical Exemption (CEQA determination)	I.	Declaration of Restriction
E.	Assessor's parcel map	J.	Comments & Correspondence

Parcel Information

Parcel Size:	Approximately 40 acres
Existing Land Use - Parcel:	Vacant – timber production
Existing Land Use - Surrounding:	Residential

Project Access:	Santa Cruz Road
Planning Area:	San Lorenzo Valley
Land Use Designation:	R-M (Mountain Residential)
Zone District:	TP (Timber Production)
Coastal Zone:	__ Inside X Outside

Environmental Information

Geologic Hazards:	Not mapped/no physical evidence in the vicinity of proposed development
Soils:	158 – Nicene Aptos (~60%), 182 Zayante Sands (~40%)
Fire Hazard:	Critical Fire
Slopes:	Over 3/4 of site contains slopes of >50%
Env. Sen. Habitat:	Sandhills habitat; site reviewed by Environmental Planning staff; caretaker's unit is temporary and will help ensure protection of resources.
Grading:	No grading proposed
Tree Removal:	No trees proposed to be removed
Scenic:	Not a mapped resource
Drainage:	Existing drainage adequate
Traffic:	N/A
Roads:	Existing roads adequate
Parks:	Existing park facilities adequate
Archeology:	Mapped resource; however to ground disturbance proposed

Services Information

Urban/Rural Services Line:	__ Inside X Outside
Water Supply:	Private Well
Sewage Disposal:	Septic System
Fire District:	County Fire Protection District
Drainage District:	Zone 8

History

The subject parcel was issued a Notice of Violation in 2001, for grading and clearing activities and accelerated erosion. Approximately .75 acres were completely cleared of all vegetation. The property owners at that time were directed to obtain a biotic assessment to evaluate the potential impact of the grading, clearing and erosion on sensitive habitat associated with Sandhills on the site. The recorded violation was expunged (but not resolved) upon receipt of a $5,000 security in August 2001, which was requested in order to secure the completion of the Biotic Report and the restoration of disturbed Sandhills Habitat. The deposit was subsequently returned to the former property owner to be used to obtain the required biotic report. In 2003, application 03-0232 was received for review and monitoring of the biotic restoration work specified by the project biologist Kathy Lyons.

Subsequently, the property was sold to the current owner, Donald Blaha, who was informed about the limitations on the development potential of the subject parcel based on the incomplete restoration

work and extensive presence of Sandhills Habitat on the property. An Updated Botanical Report & Restoration Plan was completed by botanist Valerie Haley in early 2008. The plan provides a 5-year restoration and monitoring plan which is currently underway. Since the transfer of ownership to Mr. Blaha additional complaints have been received regarding the erection and maintenance of a large storage container on the property and other unpermitted uses on the property.

The subject application would allow the property owner to occupy the property in order to oversee the restoration effort in progress, and to prevent intruders from continuing historic destructive uses on the site, such as dirt biking ATV riding. This application does not resolve any existing violations on the property; rather it will allow the owner to protect the property from additional impacts. The ongoing restoration work must be maintained in order for the past violations to be resolved. The application *does* help to ensure that the ongoing restoration efforts can continue and succeed.

The proposed alpaca farm is ancillary to the temporary caretaker's unit and was not a part of the original discussions between Mr. Blaha and County staff regarding overseeing restoration efforts. The property owner has stated that the alpaca farm will allow him to make economic use of the property.

Project Setting

The project site is approximately 40 acres is size and is located on Santa Cruz Road in the San Lorenzo Valley Planning Area. The site is vacant, although developed with a private septic system and well. The parcel contains a mixture of redwood forest, and chaparral with approximately 11-12 acres of Zayante soils, which defines the Sandhills Habitat. Approximately 75% of the parcel is characterized by steep (50%) slopes and redwood forest. The parcel is bisected by Santa Cruz Road, a private access road that serves multiple properties. The restoration plan requires about .75 acres of disturbed Sandhills Habitat be restored. The temporary agricultural caretaker's unit will occupy a portion of the restored area. Parcels to the north, west and south are residentially developed, while the parcel to the east is zoned for Timber Production.

Zoning & General Plan Consistency

The subject property is approximately 40 acres in area and is located in the TP (Timber Production) zone district, a designation that allows the temporary caretaker's unit as well as all uses allowed under the Commercial Agricultural zone designation. The proposed caretaker's unit is an allowed use within the zone district and the project is consistent with the site's (R-M) Mountain Residential General Plan designation.

Caretaker's Unit

Per county Code Section 13.10.631, a temporary agricultural caretaker's unit may be constructed to facilitate management of timber production-zoned parcels where no permanent dwelling exists. Additionally, the code provides that approval of such a temporary caretaker's unit shall be based upon the demonstrated need for security.

Although the proposed location for the unit is part of a designated restoration area and is part of a protected sensitive habitat (Sandhills), the construction will be temporary and will not entail any

grading or the construction of a permanent foundation. Additionally, the temporary unit will be used in order to protect the large amount of sensitive habitat from trespass and further disturbance by neighborhood kids and others who have illegally used the property in the past. conditions of approval are included, which will require the project biologist to address the proposed unit in the context of the existing restoration plan and make specific recommendations to ensure no additional degradation to the sensitive habitat will be allowed. Additionally, a condition has been added to require the temporary unit to be removed prior to approval of any future dwelling on the property in order to ensure that the total impact to sensitive habitat is minimized to the greatest extent possible.

Alpaca Farm

The proposal for the alpaca operation includes a barn, paddocks an access road and test grazing area. Although the technical reports (Ford, Haley, Casale) submitted by the property owner indicate that no protected *animal species* are expected to be directly impacted by the proposed alpaca operation, the reports do state that sensitive *habitat* will be impacted by the proposal. Specifically, the June 2008 Haley report states that the proposed access driveway will create a 2,736 square foot area of disturbance within areas that contain Zayante sandy soils. This soil type is associated with sensitive habitat known as Sandhills Habitat or sand parkland. County Code Section 16.32.040 includes both oak woodland and sand parkland as sensitive habitat as well as " areas which provide habitat for rare, endangered or threatened species as designated by the State Fish & Game Commission, United States Fish & Wildlife Service (USFWS) or California Native Plant Society." The Ben Lomond spineflower is listed as endangered by both the California Department of Fish & Game and the USFWS.

Figure 3 of the Preliminary Description and Management Recommendations prepared by Lawrence Ford (Exhibit G) show stands of Ben Lomond spineflower approximately 30 feet from the proposed test grazing area and about 60 feet from the proposed barn location. The presence of Zayante sand substrate and the observance of state and federally listed endangered plant species in close proximity define this proposed alpaca farm location as sensitive habitat as defined in the County Sensitive Habitat Ordinance.

The County Sensitive Habitat Ordinance (Section 16.32.090 B & C) only allows limited residential development adjacent to sensitive habitat under certain conditions. Thus, while the temporary agricultural caretaker's unit may be permissible under the conditions of approval specified in this permit, the alpaca operation, as designed, is in conflict with the County Sensitive Habitat Ordinance and cannot be approved as currently proposed.

Code Compliance

The subject parcel has been the subject of past and current investigations regarding grading, land clearing, erection of possible illegal structures and problems with excessive erosion. The restoration plan that was approved under Application 03-0232 requires ongoing oversight and management. Nothing in this application conflicts with the restoration effort, however, as stated above, an addendum to the current restoration plan will be required prior to Building Permit issuance, in order to evaluate the additional impact, if any, to the restoration process entailed by the proposed construction of the agricultural caretaker's unit. A condition of approval has been included to require the completion of the 5-year restoration plan in process.

Failure to complete the restoration to the satisfaction of the project botanist and the Environmental Planning Section of the Planning Department will void any approvals granted for the temporary caretaker's unit.

Timber Production

Although the entire parcel is mapped as containing timber resources, only a portion of the lot contains harvestable redwood and Douglas fir. According to a letter from Stephen Staub, Registered Professional Forester, dated June 18, 2008, states that the proposed location of the temporary caretaker's unit will not appreciably affect timber productivity and management on the TP-zoned parcel and that maintenance of the non-commercial sensitive habitats on the parcel is compatible with timber management operations. A condition of approval is included which requires the final plans to be reviewed and approved by a registered forester.

Future Development

The submitted plans show future construction of a single-family dwelling. This temporary caretaker's unit application does not address any future development, which will need to be reviewed and evaluated as a part of a separate process. Nothing in the subject application can be deemed to confer development approval or approval of any future development and/or building envelope on the property. Conditions of approval have been included to clearly delineate the parameters of this application from any future proposals. The caretaker's unit shall be allowed for a period of five years, with the possibility of renewal. Renewal of the temporary unit beyond the five year period shall be contingent upon the successful protection, maintenance and monitoring of the sensitive habitat on the property. A letter from the project biologist and/or ecologist attesting to the success of the restoration and protection of Sandhills Habitat and associated species (e.g. Ben Lomond spineflower, Ben Lomond buckwheat, etc.) will be required prior to the approval of any time extension for the caretaker's unit.

Conclusion

As proposed and conditioned, with the exception of the alpaca farm, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

Staff Recommendation

- Certification that the proposal is exempt from further Environmental Review under the California Environmental Quality Act.
- **APPROVAL** of Application Number **08-0089,** with the exception of the alpaca farm, for which we recommend denial, based on the attached findings and conditions.

Supplementary reports and information referred to in this report are on file and available for viewing at the Santa Cruz County Planning Department, and are hereby made a part of the administrative record for the proposed project.

The County Code and General Plan, as well as hearing agendas and additional information are available online at: www.co.santa-cruz.ca.us

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Residential Development Permit Findings

1. **That the proposed location of the project and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity.**

This finding can be made, in that the temporary caretaker's unit is located in an area designated for timber production/commercial agricultural uses and is not encumbered by physical constraints. Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. The proposed construction of the temporary caretaker's unit will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the structure will comply with all site standards, will be set back adequately from the road and dense vegetation exists between the structure and the street, screening the area from neighboring properties. The caretaker's unit will be located more than 300 feet from the nearest residence (west).

2. **That the proposed location of the project and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the zone district in which the site is located.**

This finding can be made for the caretaker unit portion of this application, in that the proposed location of the caretaker's unit and the conditions under which it will be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the TP (Timber Production) zone. The caretaker's unit will provide an opportunity to help safeguard the integrity of timber resources, protected species and sensitive habitat located on the site as provided for in Section 13.10.631 of the County Code. Providing an opportunity for oversight and management of both timber resources and sensitive habitat on the property also helps ensure that the operating biotic restoration plan remains effective and on track toward the eventual recovery of the habitat. Insofar as the caretaker's unit helps to implement the approved restoration plan, the proposal will support current effort to resolve the code violation and fulfill the obligations specified in the governing stipulation.

Additionally, the temporary agricultural caretaker's unit will comply with the provisions of Section 13.10.683 in that all required inspections and provisions of occupancy of the mobile home will be enforced and are included as conditions of approval.

The proposed alpaca operation is not consistent with the County Sensitive Habitat Ordinance in that the identified location contains Zayante Sands, which are defined as indicative of Sandhill Habitat and are thus protected under Section 16.32.040 (definition of 'sensitive habitat') and Section 16.32.090(c). The sensitive habitat ordinance prohibits development within areas adjacent to the essential habitats of rare and endangered species (e.g. the Ben Lomond spineflower) as well as development in habitats of locally unique species, except for limited residential uses. Therefore, while findings can be made for approval of the temporary caretaker's unit, they cannot be made for the proposed alpaca operation.

3. That the proposed use is consistent with all elements of the County General Plan and with any specific plan which has been adopted for the area.

This finding can be made for the caretaker unit portion of this application, in that the proposed location of the temporary caretaker's unit is consistent with the use and density requirements specified for the Mountain Residential (R-M) land use designation in the County General Plan. The proposed location of the temporary unit will not adversely impact the light, solar opportunities, air, and/or open space available to other structures or properties in that no other structures are proposed and there are no adjacent structures within over 300 feet of the proposed unit. The construction of the caretaker's unit is consistent with General Plan Objective 2.4 (Mountain Residential Designation), which states that an important component of this designation is the necessity to protect natural resources. Providing onsite management and oversight of these resources through the caretaker's unit will help implement this goal. General Plan Policy 5.1.6 (Development Within Sensitive Habitats) allows uses within sensitive habitat when they enhance the functionality of the habitat. The proposed caretaker's unit is consistent with this policy in that it provides a degree of habitat protection on the property that does not currently exist.

A specific plan has not been adopted for this portion of the County.

4. That the proposed use will not overload utilities and will not generate more than the acceptable level of traffic on the streets in the vicinity.

This finding can be made, in that the proposed temporary caretaker's unit is to be constructed on an legal lot of record in a zone district that allows one dwelling. There is no expected significant increase in traffic generated by this use. The caretaker's unit is a temporary residential use and will not result in any long-term impact on utility use.

5. That the proposed project will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities, and dwelling unit densities of the neighborhood.

This finding can be made, in that the proposed temporary agricultural caretaker's unit is consistent with the surrounding rural character of the neighborhood. The lot has historically been used illegally for dirt biking and other uses that are damaging to the Sandhills Habitat. The presence of the caretaker's unit will discourage further degradation of the sensitive habitat. The structure is marginally visible to surrounding residences and additional planting will be required to further ensure that all development on the subject property is screened from the access road and adjacent residences.

6. The proposed development project is consistent with the Design Standards and Guidelines (sections 13.11.070 through 13.11.076), and any other applicable requirements of this chapter.

This finding can be made, in that the proposed caretaker's unit location will be of an appropriate scale and type of design that will not reduce or visually impact available open space in the surrounding area. Vegetative screening will be required to shield the unit from the adjacent residential properties. Additionally, the unit is, by definition, temporary, and therefore poses no long-term impact to the neighborhood. The protection of biotic resources that the caretaker's unit provides will benefit the entire community.

Conditions of Approval

Exhibit A: Sheet A.1 (Title & Site Plan), dated June 2008, prepared by Ryan Moe.

I. This permit authorizes the construction of a temporary agricultural caretaker's unit. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:

A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.

B. Obtain a Building Permit from the Santa Cruz County Building Official.

1. Any outstanding balance due to the Planning Department must be paid prior to making a Building Permit application. Applications for Building Permit Permits will not be accepted or processed while there is an outstanding balance due.

II. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit proof that these conditions have been recorded in the official records of the County of Santa Cruz (Office of the County Recorder).

B. Submit Final Architectural Plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. Any changes from the approved Exhibit "A" for this development permit on the plans submitted for the Building Permit must be clearly called out and labeled by standard architectural methods to indicate such changes. Any changes that are not properly called out and labeled will not be authorized by any Building Permit that is issued for the proposed development. The final plans shall include the following additional information:

1. Exterior elevations identifying finish materials and colors.

2. Plans must show required skirting for mobile home.

3. Grading, drainage, and erosion control plans.

a. Drainage plans shall show all existing drainage patters, proposed drainage outlet areas and shall be of sufficient detail as to establish that predevelopment runoff rates will be maintained.

4. Details showing compliance with fire department requirements, including requirements of the Urban Wildland Intermix Code, if applicable.

EXHIBIT C

5. Final plans shall include a copy of the conditions of approval.

6. Plans must include a Landscape or Planting Plan to provide screening of the caretaker's unit from the traveled roadway.

C. Submit four copies of the approved Discretionary Permit with the conditions of approval attached. The conditions of approval shall be recorded prior to submittal.

D. Meet the requirements of and pay Zone 8 drainage fees to the County Department of Public Works, Drainage Section. Drainage fees will be assessed on the net increase in impervious area.

E. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services.

F. Meet all requirements and pay any applicable plan check fee of the Santa Cruz County Fire Protection District.

G. Submit 3 copies of a soils report prepared and stamped by a licensed Geotechnical Engineer, if required.

H. Submit 2 copies of an addendum to the Botanical Report & Restoration Plan prepared for this site. The addendum must specifically address the impact of the proposed caretaker's unit on the existing restoration process and make recommendations for any additional mitigation measures required to avoid damage or degradation to the restoration area and to ensure that the restoration does not become more challenging as a result of the presence of the temporary mobile home. The addendum shall result in a disturbance envelope that encompasses the caretaker's unit.

I. Complete and record a Declaration of Restriction to construct a Temporary Agricultural Caretaker's Unit. **You may not alter the wording of this declaration.** Follow the instructions to record and return the form to the Planning Department.

J. Complete and record a Declaration of Restriction to develop lands containing Sensitive Habitat. **You may not alter the wording of this declaration.** Follow the instructions to record and return the form to the Planning Department.

III. Construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following conditions:

A. All site improvements shown on the final approved Building Permit plans shall be installed.

B. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.

C. The project must comply with all recommendations of the approved soils reports, if required.

D. A plan review letter must be submitted from the project Botanist, stating that the final building plans, including site preparation and access for placement of the temporary caretaker's unit, are in conformance with all recommendations made in the Botanical Report & Restoration Plan and report addendum.

E. No permanent foundation shall be permitted for the temporary agricultural caretaker's unit, which shall be either a mobile home or travel trailer.

F. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

IV. Operational Conditions

A. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. The procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

B. The granting of approval for the temporary agricultural caretaker's unit does not confer any future development rights nor does it confer approval of any building or development envelope on the subject parcel.

C. No building permit will be issued for a permanent dwelling on the parcel until the temporary caretaker's unit has been demolished or a new building application made for the use of the temporary mobile home in exclusive association with the building permit for a permanent dwelling.

D. No building permit will be issued for a permanent dwelling on the parcel until either the current 5-year habitat restoration plan has been completed to the satisfaction of both the project botanist and Environmental Planning staff, and an addendum to the habitat restoration has been completed which incorporates any additional impact entailed by the new development.

E. Failure to complete the 5-year restoration plan currently underway, to the satisfaction of both the project botanist or Environmental Planning staff, shall result in the immediate revocation of the subject caretaker's permit.

F. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the County the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

V. As a condition of this development approval, the holder of this development approval ("Development Approval Holder"), is required to defend, indemnify, and hold harmless the COUNTY, its officers, employees, and agents, from and against any claim (including attorneys' fees), against the COUNTY, it officers, employees, and agents to attack, set aside, void, or annul this development approval of the COUNTY or any subsequent amendment of this development approval which is requested by the Development Approval Holder.

A. COUNTY shall promptly notify the Development Approval Holder of any claim, action, or proceeding against which the COUNTY seeks to be defended, indemnified, or held harmless. COUNTY shall cooperate fully in such defense. If COUNTY fails to notify the Development Approval Holder within sixty (60) days of any such claim, action, or proceeding, or fails to cooperate fully in the defense thereof, the Development Approval Holder shall not thereafter be responsible to defend, indemnify, or hold harmless the COUNTY if such failure to notify or cooperate was significantly prejudicial to the Development Approval Holder.

B. Nothing contained herein shall prohibit the COUNTY from participating in the defense of any claim, action, or proceeding if both of the following occur:

1. COUNTY bears its own attorney's fees and costs; and

2. COUNTY defends the action in good faith.

C. Settlement. The Development Approval Holder shall not be required to pay or

perform any settlement unless such Development Approval Holder has approved the settlement. When representing the County, the Development Approval Holder shall not enter into any stipulation or settlement modifying or affecting the interpretation or validity of any of the terms or conditions of the development approval without the prior written consent of the County.

D. Successors Bound. "Development Approval Holder" shall include the applicant and the successor'(s) in interest, transferee(s), and assign(s) of the applicant.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

Please note: This permit expires two years from the effective date listed below unless a building permit (or permits) is obtained for the primary structure described in the development permit (does not include demolition, temporary power pole or other site preparation permits, or accessory structures unless these are the primary subject of the development permit). Failure to exercise the building permit and to complete all of the construction under the building permit, resulting in the expiration of the building permit, will void the development permit, unless there are special circumstances as determined by the Planning Director.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Don Bussey	Robin Bolster-Grant
Deputy Zoning Administrator	Project Planner

Appeals: Any property owner, or other person aggrieved, or any other person whose interests are adversely affected by any act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa Cruz County Code.

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF EXEMPTION

The Santa Cruz County Planning Department has reviewed the project described below and has determined that it is exempt from the provisions of CEQA as specified in Sections 15061 - 15332 of CEQA for the reason(s) which have been specified in this document.

Application Number: 08-0089
Assessor Parcel Number: 090-131-15
Project Location: 225 Santa Cruz Street, Boulder Creek

Project Description: Construction of a temporary agricultural caretaker's unit.

Person or Agency Proposing Project: Don Blaha

Contact Phone Number: (831) 246-4082

A. _____ The proposed activity is not a project under CEQA Guidelines Section 15378.

B. _____ The proposed activity is not subject to CEQA as specified under CEQA Guidelines Section 15060 (c).

C. _____ **Ministerial Project** involving only the use of fixed standards or objective measurements without personal judgment.

D. _____ **Statutory Exemption** other than a Ministerial Project (CEQA Guidelines Section 15260 to 15285).

Specify type:

E. __X__ **Categorical Exemption**

Specify type: Class 5 - Minor Alterations in Land Use Limitations (Section 15305)

F. Reasons why the project is exempt:

Construction of a temporary caretaker's structure to provide oversight and protection of adjacent sensitive habitat.

In addition, none of the conditions described in Section 15300.2 apply to this project.

_____ Date: _____

Robin Bolster-Grant, Project Planner

EXHIBIT D

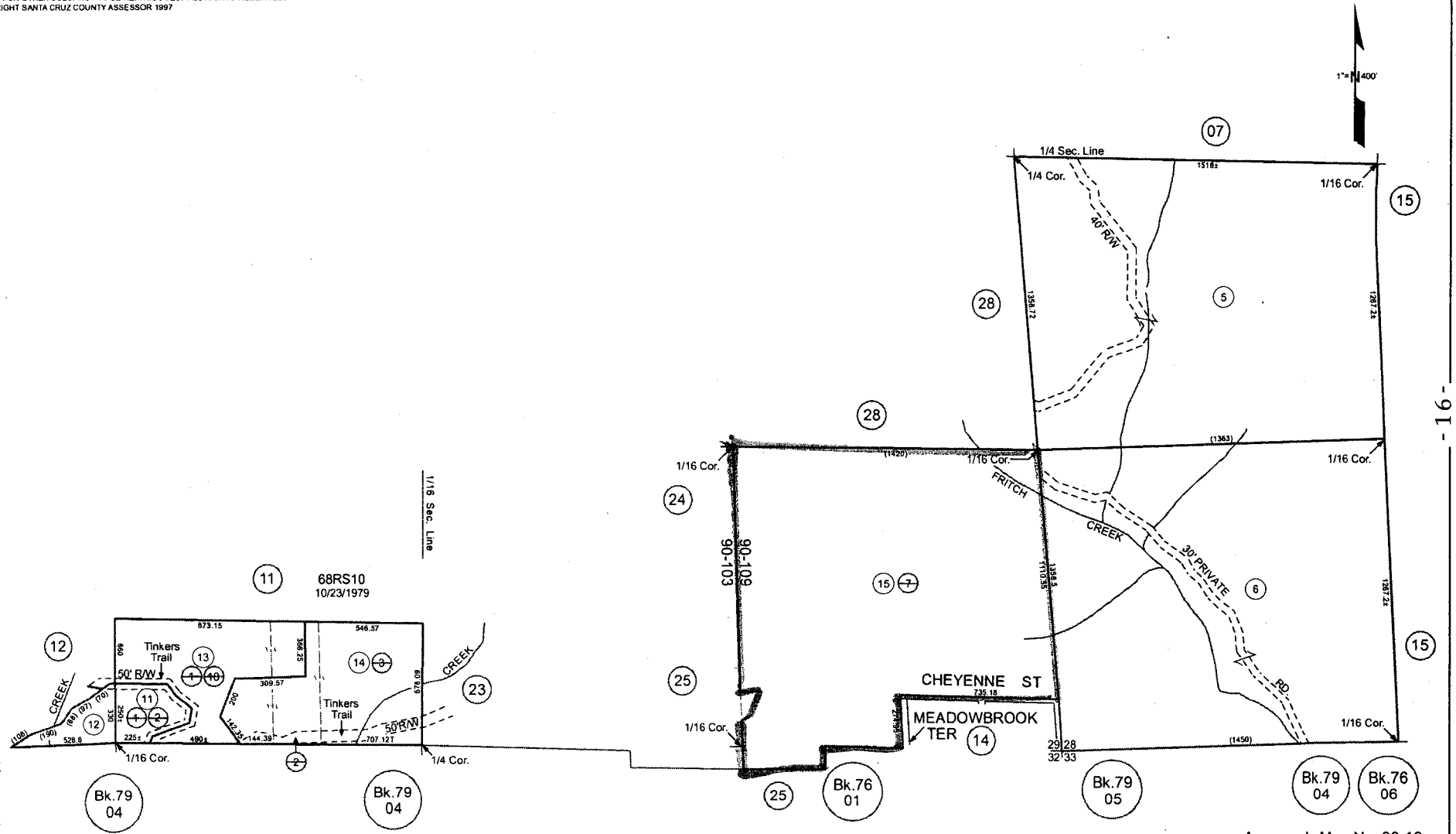
EXHIBIT E

FOR TAX PURPOSES ONLY

POR. S. 1/2, SEC. 28 & 29,
T.9S., R.2W., M.D.B. & M.

Tax Area Code
90-103 90-109

90-13

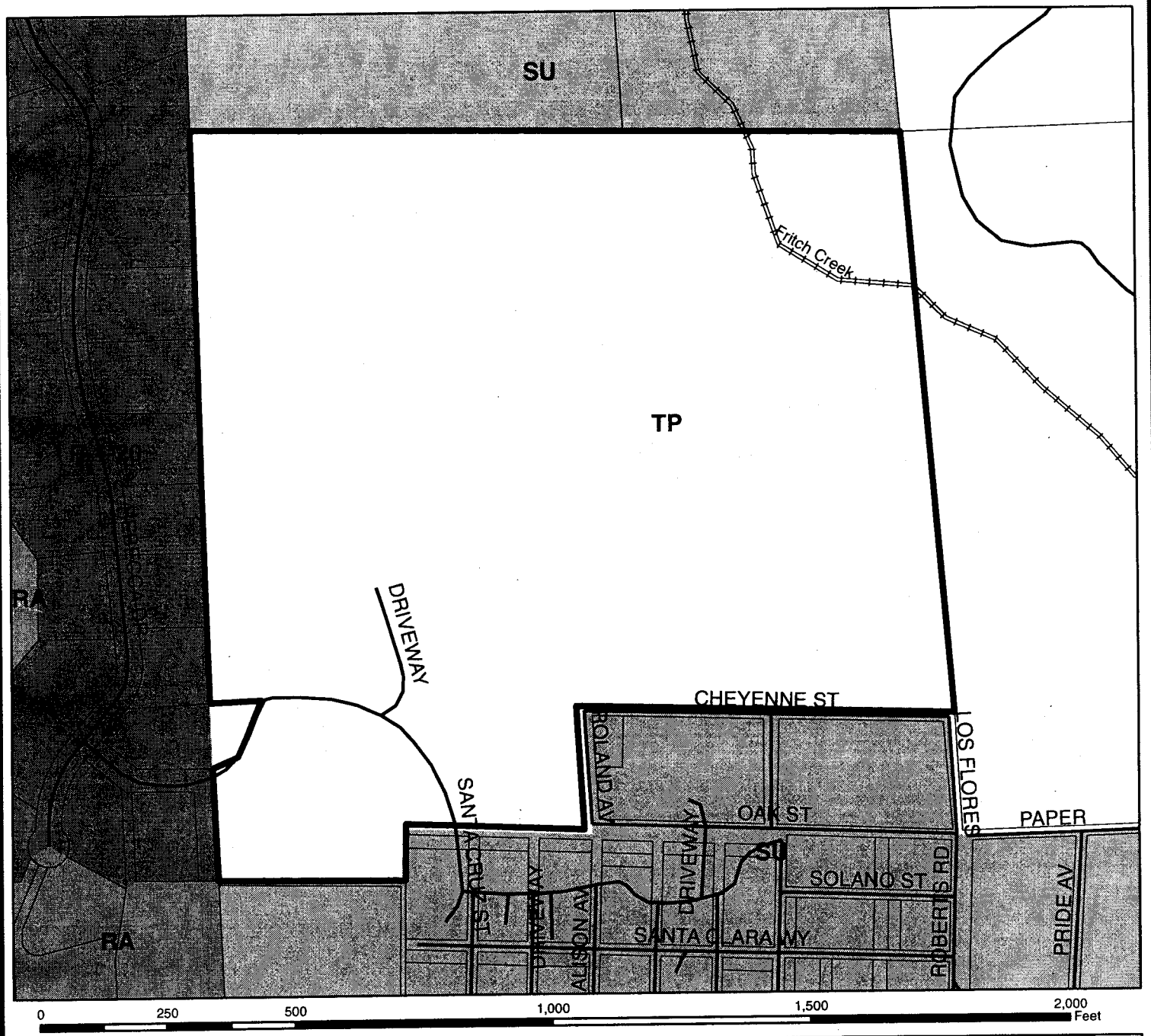


Note - Assessor's Parcel & Block
Numbers are Shown in Circles.

Assessor's Map No. 90-13
County of Santa Cruz, Calif.
Feb. 1996

Electronically Redrawn 2/4/97 rw
Rev. 5/28/98 KSA (CA)
Rev. 9/13/01 mvn (changed page refs.)
Rev. 5/4/07 TD (st name change)

Zoning Map



LEGEND

- APN: 090-131-15
- Assessors Parcels
- Streets
- TIMBER PRODUCTION
- SPECIAL USE
- AGRICULTURE RESIDENTIAL

STREAMTYPE

- PERENNIAL

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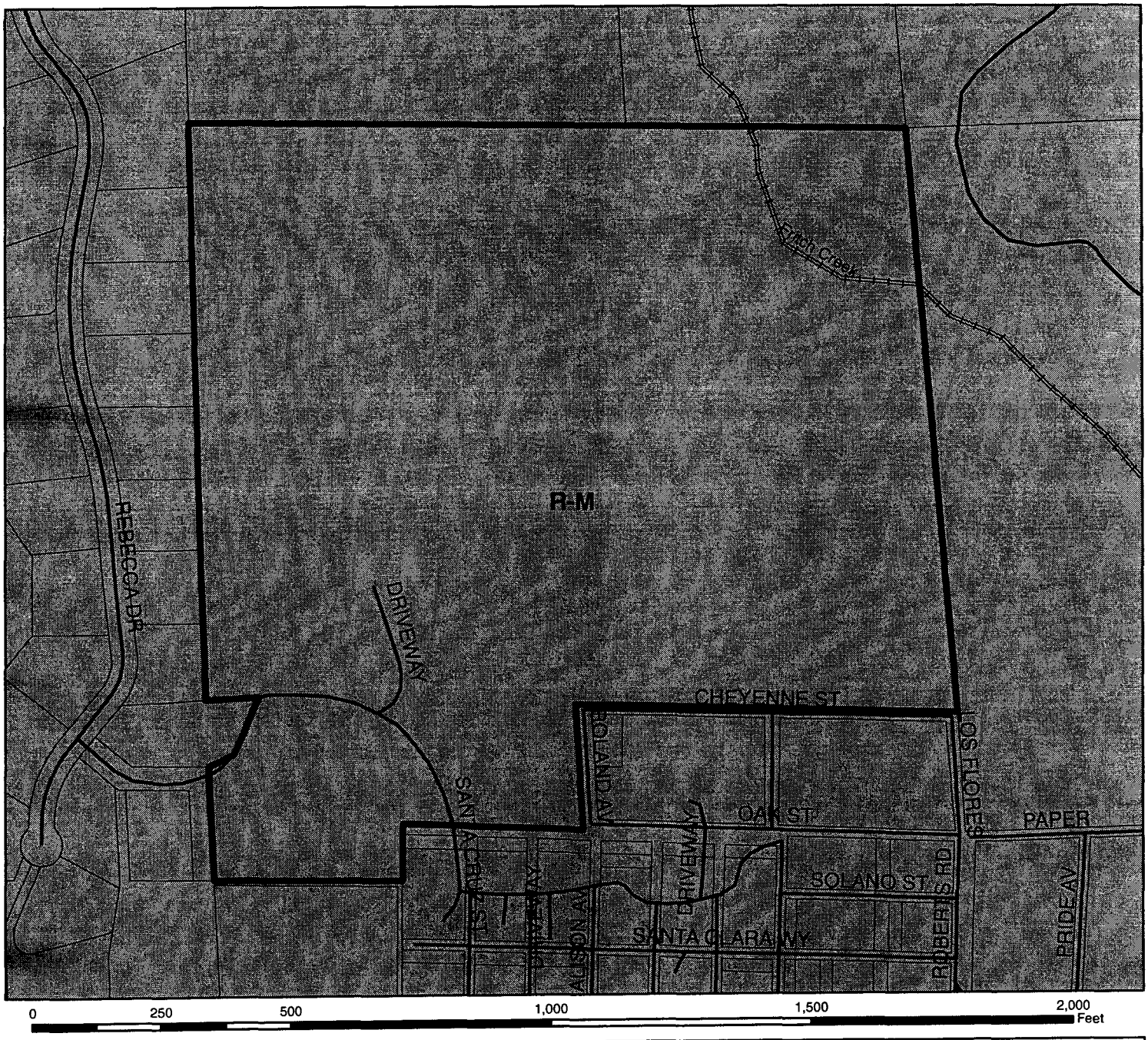
W E
S

Map Created by
County of Santa Cruz
Planning Department
April 2008

EXHIBIT

General Plan Designation Map



LEGEND

- APN: 090-131-15
- Assessors Parcels
- Streets
- Residential-Mountain

STREAMTYPE

- PERENNIAL

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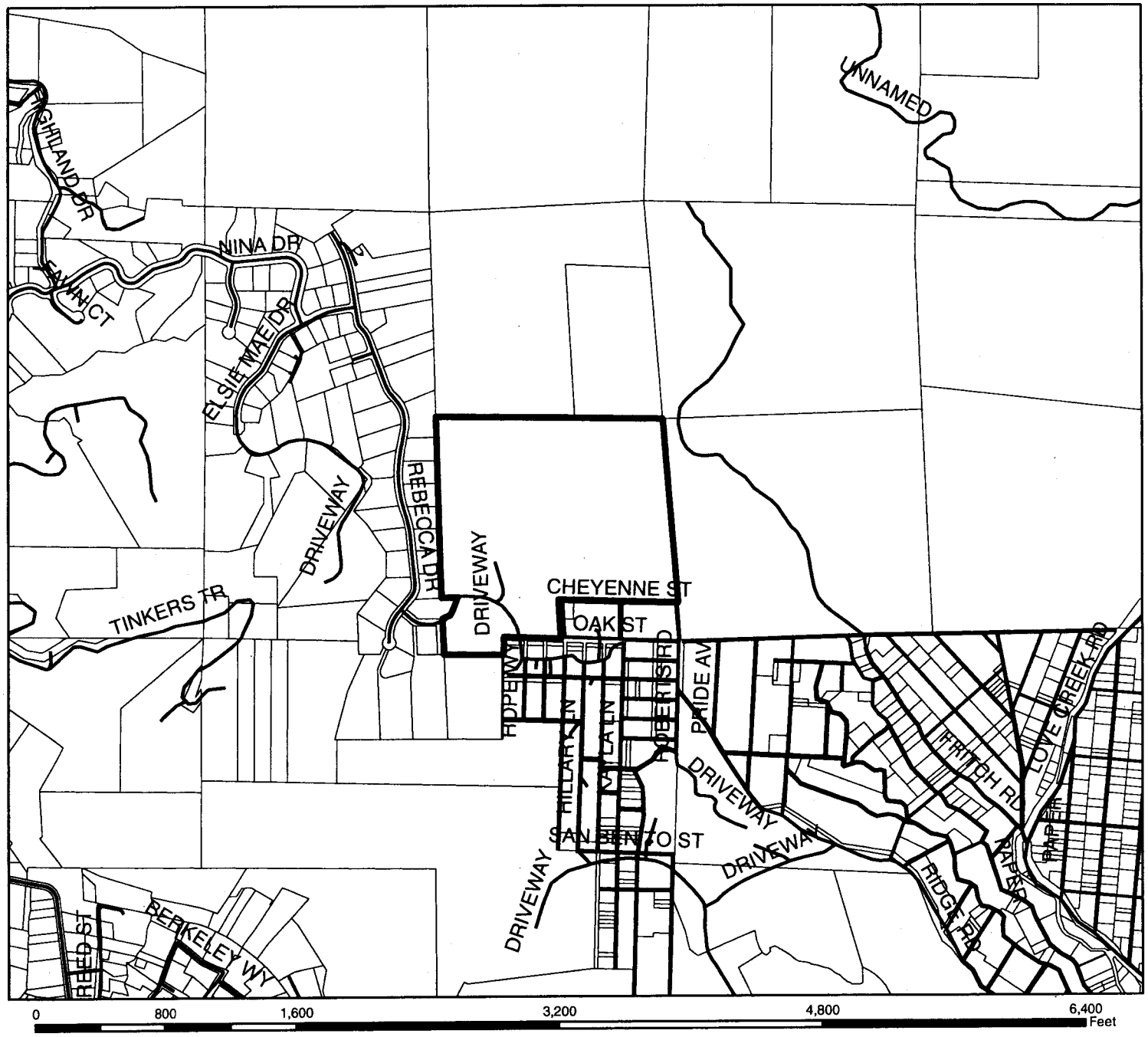
Map Created by
County of Santa Cruz
Planning Department
April 2008

EXHIBIT F

Location Map



LEGEND

- APN: 090-131-15
- Assessors Parcels
- Streets

N
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Map Created by
County of Santa Cruz
Planning Department
April 2008

EXHIBIT F

Botanical Evaluation of Proposed Alpaca Project

Blaha Property Boulder Creek, California

APN 090-131-15

Prepared for:

Mr. Don Blaha

Prepared by:

Native Vegetation Network

Valerie Haley, Botanist
Karen Williams, Graphic Designer
Christine McKenna, Admin. Assistant

PV-120

June 2008

EXHIBIT G

TABLE OF CONTENTS

List of Tables

List of Figures

List of Appendices

EXHIBIT G

BOTANICAL EVALUATION OF PROPOSED ALPACA PROJECT
Blaha Property, APN: 090-131-015

INTRODUCTION

This letter report has been prepared in response to County Planning's request prepared by Project Planner, Robin Bolster-Grant (letter dated April 18, 2008). I have reviewed the components of the proposed alpaca project and have assisted in re-designing the project so that it is conducted in the most environmentally sensitive manner as possible. A team of consultants has designed the project to be as consistent as possible with the mitigation and restoration concepts that have already been developed for the property (Native Vegetation Network, February 2008).

This letter report primarily addresses vegetation issues, including impacts analysis, mitigation measures, monitoring, and management, and should be read in conjunction with the additional reports and letters prepared for the alpaca project. Four documents will be submitted together as a packet as requested by County Planning. In addition, to this report prepared by Native Vegetation Network (NVN), reports have been prepared by Richard Casale with the Natural Resources Conservation Service, Steven Singer CPESC, and Lawrence Ford, Ph. D., CRM.

COMMENTS ON PROJECT DESIGN

On May 21 and 31, 2008, Valerie Haley attended site meetings with Lawrence Ford, Ph.D. Range Management Consultant and Steven Singer, Certified Erosion Control Specialist to determine the best location for the alpaca barn/ paddocks structure and the dirt access road. The goal was to minimize project related impacts and damage to the Pine Forest/Oak Woodland, sandhills indicator plant species, native trees, and the adjacent water drainage (Figure 2). The proposed barn/paddocks structure has been carefully placed on the more level portions of the Mixed Evergreen Forest, which enables much of the barn floor to be close to ground level. A small retaining wall will be necessary at the lowest down slope corner of the proposed barn. The barn footprint also avoids larger mature trees, including several specimen coast redwood trees, and one Douglas fir that are over 3 feet in Diameter at Breast Height (DBH). The majority of the proposed dirt access road occurs in an old road bed that joins Santa Cruz Street. The first 30 feet or so of the old road has scattered French broom plants, and the habitat is degraded. The length of the proposed dirt access road was keep to a minimum, just the length needed to access the barn and to provide maintenance access to clean the paddocks and wash water tank. The placement of the dirt (chip covered) access road in the proposed location serves as a buffer between the alpaca facilities and the adjacent sensitive Pine Forest/Oak Woodland (Figure 2). The road will also provide some working room during the barn construction, and will be temporarily part of the construction disturbance zone.

Details about the alpaca facility, animal care, and containment of urine and manure may be found in the report prepared by Larry Ford, PhD, which has been submitted with this report packet (Ford, June 2008). For further information on storm water management and erosion control see the "Storm Water Management Plan" (Singer, June 2008).

The proposed footprints for the alpaca barn and paddocks occupy approximately 5,330 sq. ft., and have been sited in the Mixed Evergreen Forest, which is not considered sensitive habitat (Figure 2). The location was chosen in order to have a set back from the water drainage that occurs near the southwest portion of the parcel (Figure 2). The location also took into account an access driveway that needed to cross through the sensitive Pine Forest/Oak Woodland habitat. Note that this is the only direct impact to the uncleared portion of the sensitive Pine Forest/Oak Woodland habitat. The proposed access driveway will be approximately 12 feet wide and 228 feet long (2,736 sq. ft.). As may be seen in Figure 2, the proposed access driveway to the barn has been carefully sited between the water drainage on the westside, and the populations of Ben Lomond buckwheat (*Eriogonum nudum* var. *decurrens*) that occur in the woodland to the eastern side. Since Ben Lomond buckwheat is considered a special status plant species, a minimum of 50 feet is recommended as a setback from the access driveway and barn and paddocks complex in order to minimize indirect impacts. In addition, the buckwheat population areas depicted in Figure 2 will be protected by deer fencing in order to avoid direct impacts from alpacas, and human activity in the area.

SENSITIVE BOTANICAL RESOURCES AT THE BLAHA PROPERTY

Sensitive Habitats

Sensitive habitats are defined by local, State, or Federal agencies as those habitats that support special status species, provide important habitat values for wildlife, represent areas of unusual or regionally restricted habitat types, and/or provide high biological diversity. Under County Code, Habitats of Locally Unique Species are considered sensitive (Code 16.32.090, Section C). Examples of these habitats include San Andreas Live Oak Woodland/Maritime Chaparral, Ponderosa Pine Forest, and native Monterey Pine Forests. In addition, areas supporting rare or endangered plant species are also considered sensitive (Code 16.32.040).

At the State level, the California Oak Woodlands Conservation Act was enacted in 2007 (California Wildlife Conservation Board, 2007). It recognizes the importance of California's oak woodlands and defines "oak woodlands as habitat with greater than 10% cover of oak trees in the genus *Quercus*". The California Environmental Quality Act (CEQA) recognizes oak woodlands of the genus *Quercus* to be a sensitive resource. California Public Resources Code 21083.4 states that a County may

require mitigation for significant impacts to oak woodlands, including planting, maintaining, and restoring former oak woodlands.

Santa Cruz County Code Chapter 16.32 (Sensitive Habitat Ordinance) includes oak woodlands in its definition of sensitive habitat. Although the Ordinance does not define oak woodlands, County policy uses the definition adopted by the California Oak Woodlands Conservation Act (California Wildlife Conservation Board, 2007).

The Sensitive Habitat Ordinance is currently undergoing revision by the County of Santa Cruz Planning Department regarding the sensitivity of Zayante sandhills plant communities and sandhills habitat. This report adopts the definitions of what is sensitive habitat under the current Sensitive Habitat Ordinance, which are subject to change in the near future.

On the Blaha property, the following habitats are considered sensitive for purposes of this report:

a) Northern maritime chaparral/pine forest: occurrences of Ponderosa pine and sensitive manzanita both locally unique plant species, and

b) Pine forest/coast live oak woodland: occurrences of Quercus species, Ben Lomond spineflower and Ben Lomond Buckwheat. The last two species listed are considered endangered plant species.

Northern Maritime Chaparral/Pine Forest. Due to the presence of Ponderosa pine and sensitive manzanita, both locally unique plant species, the northern maritime chaparral/pine forest on the project site on open Zayante sands is considered sensitive habitat and has been designated as a sensitive area (Figure 2).

Pine Forest/Coast Live Oak Woodland. Since the canopy cover of coast live oak exceeds 10% of the total tree cover in this habitat, the woodland is considered a sensitive habitat by County policy. The presence of Ben Lomond spineflower and Ben Lomond buckwheat in portions of the pine forest/coast live oak woodland increase the resource value of this sensitive habitat in areas that support these two species on the project site.

Special Status Plant Species

Two special status plant species occur at the Blaha property. For photographs and additional information on Ben Lomond spineflower and Ben Lomond buckwheat, see Appendix B.

Ben Lomond Spineflower. This species is federally listed as endangered under the Federal Endangered Species Act (FESA). This species is also listed as rare (List 1B) by the California Native Plant Society and is considered rare by the County of Santa Cruz and California Department of Fish and Game. During the 2007 field surveys, Valerie Haley checked the previously mapped occurrence of Ben Lomond spineflower that was observed by Lyons in 2001. The one colony along Santa Cruz Street has increased in size, 800- 900 individuals in 2007 compared to 200 to 250 plants in 2001. The colony occurs near the southeastern corner portion of the property far away from the proposed development envelope (Figure 2). The plants were observed growing within a narrow (5-10' wide) grassy strip located between the paved roadway and the pine/coast live oak woodland mosaic. No other occurrences of Ben Lomond spineflower were observed on the property.

Ben Lomond Buckwheat. This species is not State or federally listed, but is thought rare (List 1B) by the California Native Plant Society, and is considered rare by the County of Santa Cruz and California Department of Fish and Game. Five new (previously not observed) areas or colonies supporting this species were noted and mapped during the 2007 field surveys (Figure 2). Four of the areas are located in the Pine Forest/Oak Woodland habitat; whereas one area of 33 plants is located near the entrance to the Restoration Area in the northern maritime chaparral/ pine forest. The largest (approximately 210 plants) area or colony of Ben Lomond buckwheat is located on the southwest side of Santa Cruz Street (Figure 2). Most of the buckwheat plants occur in open sandy soil within 15 feet of the road; however, one outlying area of 14 plants occurs near the boundary with the Redwood forest (Figure 2).

IMPACT DISCUSSION

Grading for the proposed alpaca project will be minimal, and will be limited to that needed for the excavation of the utilities trench, septic system and leach fields. No grading will be used in the areas proposed for the caretakers unit, barn, four paddocks, and dirt access road. The existing topography will be used. The barn will be partially built on a pier foundation, and the caretaker's unit will be a mobile trailer. All of the footprint for the proposed alpaca barn/paddocks structure will be located in the Mixed Evergreen Forest. Approximately 5,330 square feet will be disturbed for the construction of the alpaca barn and four paddocks. In terms of botanical resources, Mixed Evergreen Forest is not considered significant due to its abundance in the Santa Cruz Mountains. For a summary of project impacts according to habitat, see Table 2.

Since it is not feasible to access the barn through the Mixed Evergreen Forest from the west side through the steep slopes of the water drainage, the dirt road access would need to cross through the sensitive Pine Forest/Oak Woodland habitat (Figure 2). The proposed dirt access driveway will be approximately 12 feet wide and 228 feet long. Maintenance use of the driveway will disturb and compact approximately 2,736 sq. ft of sensitive Pine Forest/Oak Woodland habitat. Note that this is the only direct impact to the uncleared portion of the sensitive woodland habitat that is located on the southwest side of Santa Cruz Street. The proposed development on the northeast side of Santa Cruz Street would occur in the previously cleared portion of Pine Forest/Oak Woodland, which is currently undergoing restoration.

The well, water tanks, and water lines from the well to the water tanks are already in place; therefore, there will be no new impacts to vegetation resources for their installation. The utilities trench, septic system and leach fields will be excavated in portions of the Pine Forest/Oak Woodland habitat that was subject to unauthorized clearing and grubbing last year; therefore, no trees or shrubs will be removed, which lessens the level of impact. An Updated Botanical Report and Restoration Plan (Native Vegetation Network, February 2008) is already in place to mitigate this previous land clearing violation. Additional mitigation measures for the cleared portion of the Pine Forest/Oak Woodland are presented in Restoration Plan.

Impact Criteria

The thresholds of significance presented in the California Environmental Quality Act (CEQA) were used to evaluate project impacts and to determine if the proposed alpaca project poses significant impacts to biological resources. In addition, State and County policies were used to develop the significance criteria. For this botanical evaluation, significant impacts are those that substantially affect either.

- A species (or its habitat) listed or proposed for listing by State or Federal governments as rare or endangered;
- Breeding/nesting habitat for a State Species Concern (e.g., Cooper's hawk);
- A plant considered rare (i.e., List 1B) by CNPS;
- A habitat regulated by State or Federal law;
- Movement of native resident or migratory species; or
- A habitat recognized as sensitive by CDFG and/or the County of Santa Cruz (e.g., ponderosa pine forest, maritime chaparral, oak woodlands).

Impacts were not considered significant to vegetation communities or habitats that are not protected, are generally common, and do not support listed plant species. On the project site, this relates to impacts to the mixed evergreen forest and redwood forest (for botanical resources only).

Summary of Proposed Tree Removal

A total of 16 native trees would be removed for the development of the proposed alpaca barn/paddocks structure, and dirt access road on the southwest side of Santa Cruz Street. No trees would be removed on the northeast side of the street, since the proposed development of the septic tank, leach fields, and utilities trench would occur in the previously cleared area. A summary of the trees proposed for removal according to plant community is provided in Table 3. Three small coast live oak trees would be removed in the Pine Forest/Oak Woodland, and 13 trees are proposed for removal in the Mixed Evergreen Forest. The large knobcone pine, 28 inches DBH is diseased, leaning, and has dead branches. The 15-inch DBH Douglas fir is leaning over the area proposed for the barn.

Table 3. Summary of Trees Proposed for Removal

Plant Community	Tree Species	Diameter at Breast Height
Pine Forest/Oak Woodland (uncleared portion)	*Quercus agrifolia*	8 inches
Pine Forest/Oak Woodland (uncleared portion)	*Quercus agrifolia*	8 inches
Pine Forest/Oak Woodland (uncleared portion)	*Quercus agrifolia*	4 inches
Mixed Evergreen Forest	*Pinus attenuata*	28 inches
Mixed Evergreen Forest	*Pinus attenuata*	18 inches
Mixed Evergreen Forest	*Pseudotsuga menziesii*	15 inches
Mixed Evergreen Forest	*Pseudotsuga menziesii*	10 inches
Mixed Evergreen Forest	*Quercus agrifolia*	14 inches
Mixed Evergreen Forest	*Quercus agrifolia*	11 inches
Mixed Evergreen Forest	*Quercus agrifolia*	10 inches
Mixed Evergreen Forest	*Quercus agrifolia*	8 inches
Mixed Evergreen Forest	*Quercus agrifolia*	7 inches
Mixed Evergreen Forest	*Quercus agrifolia*	6 inches
Mixed Evergreen Forest	*Quercus agrifolia*	6 inches
Mixed Evergreen Forest	*Quercus agrifolia*	5 inches
Mixed Evergreen Forest	*Quercus agrifolia*	5 inches

EXHIBIT (

POTENTIAL IMPACTS AND MITIGATION MEASURES

The proposed alpaca project was evaluated for potential direct and indirect impacts to sensitive biotic resources. Examples of direct impacts are the removal of habitat for access road construction, lot development, driveway improvements, and house construction. Examples of indirect impacts include: potential disturbance to Special Status Species from increased human uses on the property (e.g., noise, lighting, or discharge of residential development run-off into natural areas).

Measures are recommended to reduce impacts from the proposed development, including measures to compensate for direct impacts to Pine Forest/Oak Woodland and sandhills indicator plants, and indirect impacts to special status plant species. Mitigation measures to reduce project impacts to a less-than-significant level are presented below. The impacts and mitigation measures have been organized according to the habitat or plant community affected.

PINE FOREST/COAST LIVE OAK WOODLAND

According to the Site Plan for the Blaha Project Site (Don Blaha, June 2008), the proposed development for the caretaker's unit, septic system, and utilities trench will occur in the previously cleared portion of the Pine Forest/Oak Woodland habitat on the northeast side of Santa Cruz Street. Note that a dirt driveway with a woodchip surface already occurs on the northeast side of Santa Cruz Street, and is currently being used as a maintenance access road. The road was cleared of vegetation during the 2007 land clearing violation. For further information on the land clearing violation and current restoration program see the following report on file with County Planning "Don Blaha Project Site Updated Botanical Report and Restoration Plan " Native Vegetation Network, February 2008.

The proposed dirt access road to the alpaca barn and paddocks would be developed on the southwest side of Santa Cruz Street. The first 228 feet of the dirt access road is located in the uncleared portion of the Pine Forest/Oak Woodland; whereas, the barn and paddocks will be located in the Mixed Evergreen Forest (Figure 2). A close up of the proposed barn and paddocks facility is depicted in Figure 3.

Pine Forest/Oak Woodland (uncleared portion).

1. **Potential Direct Impacts due to Barn Access Road.** The maintenance use and placement of wood chips on the proposed dirt access road (12 feet wide by 228 feet long) will damage vegetation and compact the soil in approximately 2,736 sq. ft. of sensitive woodland habitat. Three small coast live oak trees, ranging from 4 to 8 inches DBH will need to be cut down to provide the width of 12 feet needed for fire vehicle access. The transport of bedding straw, feed and grain to the alpaca barn may introduce unwanted, non-native plant seed.

Mitigation Measure 1. The following measures are recommended to reduce impacts to the Pine Forest/Oak Woodland to a less-than significant level.

a) **Fencing of Trees to be Retained.** To the greatest extent possible, keep construction activities a minimum of 10 feet away from the tree trunks. Trees to be retained that occur within 20 feet of utility trenching and barn construction should be protected by placing 5-foot high plastic construction fencing along the outside edge of the drip line of the tree or grove of trees. The fencing should be maintained throughout the construction of the barn and paddock fences, and should be inspected periodically for damage and proper functioning.

b) **Fencing of Sensitive Habitat.** Temporary 5-foot high plastic construction fencing should also be placed on the upslope side of the proposed barn access road to protect the adjacent Pine Forest/Oak Woodland and Ben Lomond Buckwheat plants. The project botanist shall oversee the placement of the protection fencing. The fencing should be maintained throughout the site construction period. Once construction is complete, a wooden split rail fence should be installed along the boundary of the dirt access driveway and the adjacent Pine Forest/Oak Woodland.

c) **Tree Care.** If construction activities are proposed within the drip line of trees designated to be retained, the following construction guidelines should be implemented: minimize grading, filling, or other type of soil disturbance within 10 feet of the tree trunk. If 1/3 or more of the roots are disturbed, the injured tree should be watered so that the ground is soaked to a depth of 18 inches, extending outward to the drip line of the tree.

d) **French Broom Removal on the Southwest Side of Santa Cruz Street.** To compensate for these impacts, French broom (*Genista monspessulana*) should be removed from the Pine Forest/Oak Woodland located on the south side of Santa Cruz Street such that there is a maximum of 5% vegetative cover of this invasive, non-native species.

Pine Forest/Oak Woodland (cleared portion).

Potential Direct Impact 2. Trenching for the utilities will disturb approximately 1,050 square feet, and excavation for the septic tank and leach fields will disturb approximately 940 square feet (Table 2). Two clumps of mature coast live oak trees occur near the eastern end of the proposed development envelope. Tree vigor and health of these oak trees could decline if they are subjected to increased soil moisture in the area from septic effluent.

Mitigation Measure 2. The following measures are recommended to reduce impacts to the pine forest/oak woodland mosaic to a less-than significant level.

a) The septic system shall be designed to include an enclosed transmission line for transporting the sewage effluent from the septic tank/treatment facility to leach fields located to the southeast of the oak groves. The transmission line should run in between the two oak groves, and pass their canopy lines to access the leach field and leach field expansion area which are both located down slope of the oak trees. The use of the transmission line allows the leach fields to be placed down slope of two mature oak tree groves, so that the oak trees are not subjected to overly wet subsurface conditions that may lead to their decline.

b) During the excavation for the utilities trench to the caretaker's unit and septic system, the adjacent sensitive habitats (northern maritime chaparral/pine forest and the pine forest/oak woodland) should be protected to prevent inadvertent impacts to these habitat types. These natural areas adjacent to the development should be protected by the placement of 5-foot high construction fencing. The project botanist shall oversee the placement pf the protection fencing. The fencing should be maintained throughout the site construction period and should be inspected periodically for damage and proper functioning.

c) Existing trees to be saved that are adjacent to construction activities shall be protected by a 5- foot high temporary fence (plastic construction fencing). The protection fencing should be installed along the driveway access route where it abuts the Pine Forest/Oak Woodland habitat. The fenced construction zone for the proposed driveway is approximately 12 feet wide and 175 feet long. The existing ground surface on either side of the driveway (outside the construction zone) shall not be cut, filled, or compacted. The fencing along the driveway access route shall be maintained throughout the construction period and shall be inspected periodically for damage and proper functioning.

d) Concur with Lyons (2001) that habitat alteration in the retained natural habitats surrounding the driveway and caretaker's unit should be restricted to walking trails, removal of dead and downed trees for on-site residential uses (i.e., non-sale firewood) or for habitat restoration/enhancement (i.e., removal of invasive, non-native plant species).

e) For trees designated to be retained that occur within 20 feet of utility trenching or excavating for the septic tank and leach field, the trees should be protected by the placement of 5-foot high plastic construction fencing.

f) **Invasive, Non-native Plant Removal.** Areas along the access driveway and Santa Cruz Street shall be managed to promote the re-establishment of native plant species. As compensation for potential indirect impacts to locally unique species and habitat from the proposed residential land uses, the landowners

should remove/control the occurrences of invasive, non-native plant species that occur within the chaparral/pine and pine/oak habitats. The roadsides should be maintained so that there low levels (less than 5% vegetative cover) of invasive, non-native plants. Spring is a good time to pull French broom plants, while the soil is wet and before the plants have gone to seed. This helps to avoid the spread of seed into new areas. Hand hoeing or shovel removal of the entire plant, including the roots works well. French broom removal should start in winter 2008. A significant effort should be conducted prior to the construction phase in order to reduce the spread of broom plants by construction activities and equipment. Infestations along Santa Cruz Street should be targeted. Controlling French broom will likely be needed on a yearly basis as regular management of the property.

The majority of the invasive, nonnative plants are located along existing roads. High priority for removal include French broom, dogtail grass, and rattlesnake grass. The plants should be removed in a manner that minimizes disturbances to the native trees and shrubs occurring in these habitat areas.

Potential Indirect Impact 3. Caretaker's Trailer. A 10-foot by 30-foot trailer is proposed. Indirect impacts can result from residential land uses. The proposed caretaker's residence will cause an increase in human activity at the site. Potential human impacts include: night lighting, domestic pets, trampling of vegetation, dumping of trash, and landscaping with non-native species.

Mitigation 3. These indirect impacts are considered significant, but mitigable to a less-than-significant level through the incorporation of the following measures.

a) **Lighting.** Minimize the use of bright lighting (i.e., floodlights) that is on all night, which may influence the behavior and disorient wildlife species.

b) **Landscaping.** Whenever possible, landscaping should use native plant species growing on the property. Plant species with high wildlife value should be planted. Plant species having berries, nuts, forage value, and/or nectar include: toyon, coffeeberry, coast live oak, and tan oak.

c) **Pet Maintenance.** Maintain moderate levels of dogs and cats, so there is not over predation of the site's rodent and bird populations.

d) **Restoration Activities.** Recommendations for managing the cleared portion of woodland have already been established in the "Updated Botanical Report and Restoration Plan" (Native Vegetation Network, February 2008). Restoration activities include dead wood and chip removal, plant protection measures, monitoring for natural recruitment of native plants, exotic plant removal, and remedial planting. For further details on restoration, see the Restoration Plan, which focuses on the northern side of Santa Cruz Street.

MIXED EVERGREEN FOREST

Potential Impact 4. All of the footprint for the proposed alpaca barn/paddocks structure will be located in the Mixed Evergreen Forest (Figure 3). Approximately 5,330 square feet will be disturbed for the construction of the alpaca barn and four paddocks. The 13 trees listed in Table 3 would be removed. Nine of the 13 are coast live oak trees. Removal of Mixed Evergreen Forest Habitat is not considered significant; however, removal of nine coast live oak trees is considered significant, but mitigable through the following recommended mitigation measures. Also, see the Additional Recommendations section of this report.

Mitigation Measure 4. Remedial Oak Tree Planting. Once the development of the barn and paddocks is complete, the number oak trees damaged or removed shall be verified by the project botanist. The total number of coast live oak trees impacted should be replaced at a 2:1 ratio according to the methods outlined in the current Restoration Plant for the Blaha property (Native Vegetation Network, February 2008).

SPECIAL STATUS SPECIES

Potential Impact 5. Impacts to Special Status Plant Species. Increased human uses on the property may result in inadvertant impacts to the special status plant species, Ben Lomond buckwheat and Ben Lomond spineflower. Due to the limited distribution of Ben Lomond spineflower in the region and its special status under FESA, County Code, and CEQA, these impacts are considered significant.

Mitigation Measure 5. The following measures are recommended to reduce potential indirect impacts to Ben Lomond spineflower and Ben Lomond buckwheat to a less-than significant level.

a) **Protection and Remedial Planting Ben Lomond Buckwheat.** Prior to the excavation for the septic tank and leach fields, the cleared portion of the Pine Forest/Oak Woodland habitat on the northern side of Santa Cruz Street should be surveyed for Ben Lomond buckwheat plants. Any plants detected should be flagged and protected with fencing or metal protection cages as appropriate. Although Ben Lomond buckwheat is not usually browsed by deer, the protection fencing will help protect the plants from construction activities, trampling, or other human activities in the area.

   If plants are found in the vicinity of the proposed locations for the septic tank and leach fields, they should be avoided to the maximum extent possible. If it is not possible to avoid a few naked-stem buckwheat plants due to constraints in the septic design, plant salvage should be conducted. Remedial planting and seeding of Ben Lomond buckwheat is also recommended to insure there is no

net loss if this special status species. The amount of remedial planting will depend on the results of the field surveys, and the number of plants that are damaged during construction.

b) **Ben Lomond Buckwheat Survey.** Prior to constructing the alpaca barn and fenced paddocks on the southwest side of Santa Cruz Street, the Pine Forest/Oak Woodland habitat should be surveyed for Ben Lomond buckwheat plants. As may be seen in Figure 1, the south side of the street supports the largest population area, 210 buckwheat plants in a clearing located about 50 feet from the street. Any plants detected should be flagged and protected with fencing or metal protection cages as appropriate.

c) **Invasive, Non-native Plant Removal.** As compensation for potential indirect impacts to Ben Lomond spineflower and Ben Lomond buckwheat habitat from the proposed project, the landowners should remove/control the occurrences of invasive, non-native plant species that occur within the pine/oak woodland. The majority of the invasive, non-native plants are located along Santa Cruz Street. High priority plant species to be removed/controlled include French Broom, dog tail grass, and rattlesnake grass. The plants should be removed in a manner that minimizes disturbances to the sensitive botanical resources, native trees and native shrubs.

MONITORING & REPORTING

Baseline Survey and Establishment of Photostations

Prior to any construction of the alpaca barn/paddocks structure and placement of the proposed caretaker's trailer, the project area (including both sides of Santa Cruz Street), photostations will be established to document the condition of the vegetation in the project area. Especially important will be photostations that document the portion of the Pine Forest/Oak Woodland habitat that has been proposed for the grazing field test (Figure 1). Any noted occurrences of Ben Lomond buckwheat plants will be mapped and flagged for protection fencing.

Reconnaissance Surveys

The project botanist will survey the alpaca project area for a minimum of two times in spring and fall, starting in fall 2008, and continuing for the first three years after the alpacas are on site. The habitats around the barn/paddocks structure area will be surveyed for invading invasive non-native plant species and weeds. The proportion of native vegetation versus non-native vegetation will be determined. The protection fencing around the special status Ben Lomond buckwheat population areas or individual plants will be inspected for proper functioning. During the surveys, any erosion problems or significant concentrations of French broom will also be noted and mapped. The purpose of the reconnaissance surveys will be to assess if any

impacts to sensitive botanical resources have resulted from alpaca trampling or grazing, and to identify problems or potential problems that may exist.

Vegetation Sampling

Four circular plots that are 40 foot in diameter will be established within the proposed grazing field test area (80 feet by 80 feet) (Figure 2). All four plots will be monitored as described below the spring before any grazing occurs to document the baseline vegetative cover. After the construction and arrival of the alpacas, the grazing field test may start. Two of the plots will be grazed and two will be ungrazed. The alpacas will be tethered on a post in the center of the two grazed plots. For each circular plot, the following information will be recorded in late spring: vegetative cover according to plant species, proportions of native vegetation versus non-native vegetation, percent cover of invasive, non-native species, species richness, and any noted erosion or site disturbance problems. The grazed plots will be compared with the ungrazed plots to determine if grazing has effected the proportion of native versus non-native plant species composition, especially the sandhills indicator species listed in Table 1. For more information on the grazing field test, see the Additional Recommendations section of this report.

Performance Criteria

Attributes to be monitored include: plant survival, species richness, vegetative cover, soil erosion, bare ground, and the proportion of invasive non-native plant species. The specific performance criteria follow:

Plant Survival. 80% plant survival of replacement coast live oak trees during fall for three years after planting.

Increasing Vegetative Cover of Sandhills Indicator Plant Species such as Ben Lomond buckwheat, bristly golden aster, California aster, and silver bush lupine.

Vegetative Cover Invasive Non-native Plants. Maximum of 5% vegetative cover of invasive non-native plants on the southwest side of Santa Cruz Street.

Absense of Erosion Gullies.

Project Documentation & Reporting

In December 2008, 2009, 2010 and 2011, yearly letter reports will be prepared that document the results of the spring and fall monitoring surveys, maintenance and exotics removal activities. The reports should be brief, 3 to 4 pages, that document

the findings of the year's monitoring, number of alpacas being raised, yearly photographs, and other appropriate information. The reports will recommend remedial actions to be under taken if the alpaca project has caused damage to the surrounding habitats or special status plant species. The reports will also include an evaluation of whether or not the previous year's recommendations were implemented. Reports shall be submitted to Don Blaha and the County of Santa Cruz Planning Department.

Note that the monitoring results for the alpaca project may be included as an appendix in the annual reports that will be prepared for the restoration projects that are already occurring at the Blaha property.

The length of the monitoring may be extended if the maximum number of 8 adult alpacas has not been evaluated or if there are problems managing the facility in accordance with the mitigation measures outlined in this report packet.

ADDITIONAL RECOMMENDATIONS

Monitoring for Water Quality, Erosion Control, and Manure Management

Upon completion of the installation of the alpaca barn/paddock structure and utilities, the project should be inspected by licensed professionals that are certified in water quality, range management, and erosion control. The inspections should verify that the wash water tanks, latrines, and manure management practices are in place and functioning properly. After the initial inspections, the alpaca facility should be monitored quarterly the first year that the animals arrive. This will provide valuable guidance to the Blaha family in working out the details for successful alpaca farm operations. In years 2 and 3 after the animals arrive, it is recommended that there be two inspections in spring and fall. The results of the inspections and any additional management recommendations will be sent to the Blaha family and the County of Santa Cruz Planning Department. Proper management of the manure and urine collection will be a key factor in managing the alpaca project due to the proximity of adjacent sensitive habitats and the ephemeral water drainage. The length of the monitoring may be extended if the maximum number of 8 adult alpacas has not been evaluated or if there are problems managing the facility in accordance with the mitigation measures outlined in this report packet.

Grazing Field Test Plot

It is recommended that a grazing test plot be established on the southwestern side of Santa Cruz Street. The proposed location for the test plot would occur in a portion of the Pine Forest/Oak Woodland (Figure 1). The size of the plot would be 80 feet by 80 feet (6,400 sq. ft.), and it would be set back from the street about ten feet. Within the test plot, there would be two tethering posts, where the alpacas would be

tethered on leashes 20 feet long. One alpaca at a time would be rotated from tethering post to tethering post in order to reduce impacts to vegetation from browsing and trampling. The frequency of rotation should be conservative at first with a visual assessment daily for up to one week. Monitoring will be needed to field verify the amount of grazing impacts in order to refine the frequency of grazing and whether grazing is appropriate for the site.

The project botanist should verify impacts to native plants versus non-native species, and especially note if any of the sandhills indicator plant species are damaged by grazing. If there is selective alpaca forage on non-native weeds and invasive plant species such as rattlesnake grass, dog tail grass, and sheep sorrel, the alpaca grazing may serve as a vegetation management tool. Areas left with less grass thatch or small barren soil patches may provide more open substrate for the establishment of sandhills indicator plant species such as silver bush lupine and bristly golden aster (Table 1). The tethering process has additional benefits in that it provides the alpacas an opportunity to exercise, forage, and a place for the alpacas to go during clean up and maintenance of the paddocks area. The effects of grazing would be monitored for two years by evaluating changes to vegetation composition, bare ground and duff/litter. For more details on vegetation sampling and photodocumentation, see the Monitoring section in this report. If the monitoring results reveal too much animal impact in the tether areas, tethering may need to be eliminated from the Pine Forest/Oak Woodland. Conversely, if monitoring shows positive results from grazing, tethering may be extended to other areas in the Pine Forest/Oak Woodland.

Any expansion of the grazing test area or increase in tethering locations in this sensitive habitat should be coordinated with the project botanist and the County of Santa Cruz Planning Department, and documented in the annual letter report.

Note that tethering of the alpacas would be permitted in the Mixed Evergreen Forest and Redwood Forest habitat areas that have a slope of 30 degrees or less. Vegetation sampling would not be required, since Redwood Forest and Mixed Evergreen Forest are not considered sensitive habitats. The animals would need to be walked on a leash from the proposed barn/paddocks structure to the Redwood Forest so that browsing would not occur in the sensitive habitats on the property.

Forest Management Practices for Fuel Reduction

The habitats surrounding the proposed barn and paddocks have a high fuel load.

The Mixed Evergreen Forest has scattered small, dead standing trees. Many of the large living trees including Douglas fir, coast redwood, and coast live oak have dead lower branches. The Pine Forest/Oak Woodland between Santa Cruz Street and the proposed barn and paddocks a grove of dead standing knobcone pines. Fallen pines and dead branches litter the ground in much of the habitat. Dead standing trees are

referred to as snags and are valuable for wildlife, especially acorn woodpeckers and predatory birds such as hawks and owls. Some of the dead trees should be retained for wildlife. It is recommended that the Fire Caption from the City of Boulder Creek evaluate the forest and provide consult on the creation of a shaded fuel break around the proposed alpaca facilities. A shaded fuel break usually involves removing dead trees, limbing up lower tree branches that can provided ladder fuels, and the thinning of trees and shrubs. The California Department of Forestry and Fire Prevention (CDF) has recently increased their requirements for defensible space around homes and buildings from 30 feet to 100 feet. It is recommended that Don Blaha and the project botanist meet with the Fire Captain to identify the high priority areas for fuel reduction in the Mixed Evergreen Forest and adjacent patches of knobcone pine (*Pinus attenuata*) forest. The owner is amenable to this recommendation as he wants to protect his investment. The project botanist should supervise portions of the removal and flag the trees to be thinned. No grubbing of cut trunks should occur in order to minimize ground disturbance.

The removal of dead material and creation of the shaded fuel break would benefit the project site in several ways, including the reduction of fire hazard, and habitat enhancement. The tree thinning and limbing will allow more sunlight to reach the ground. The likely result will be an increase in herbs and shrubs due to light stimulation of the soil "seed bank". Opening up the light regime in the forest will also provide more sunlight to the adjacent Pine Forest/Oak Woodland habitat.

There would be the added benefit that the increased light would promote the vegetative cover of the sandhills indicator plant species that typically prefer sunny conditions.

CONCLUSION

In terms of storm water and erosion control, Steven Singer has determined that the proposed alpaca project " is not expected to have any increase in the amount of surface runoff leaving the property" due to the high infiltration rates of the soil types at the project site. I concur with his recommendations and placement areas for the wash water tank, straw wattles and coir rolls. For further detail, see his attached report (Singer, June 2008). Manure management, and the location of urine latrines under the roofed portions of the paddocks has been carefully thought out by Larry Ford in his attached report (Ford, June 2008). Please refer to his report for further details on managing the alpaca facilities. Since the wash water tank will also include urine waste, it will need to be properly emptied to the proposed septic system or be vacuumed out by a septic service.

Adaptive Management

The consultants involved with designing this proposed alpaca project have done their best effort to create a working project that has minimal impacts to sensitive resources. However, the results of future monitoring surveys will be essential in refining the management guidelines and recommendations proposed so far in this reports packet. In general, there is little forage in the existing plant communities on the site (Appendix A) for the alpacas to utilize (Ford, June 2008). The feasibility of tethering the alpacas on leashes will need to be investigated, both in terms of unwanted impacts to native plant species and safety from natural predators and marauding dogs. For the first three years of the alpaca project, the annual letter reports will provide recommendations to insure the project's success and compliance with the goals developed for the alpaca project.

Future Considerations for Residential Development

According to personal communications with Mr. Donald Blaha, he will be applying to the County of Santa Cruz Planning Department for a Building Permit for a single-family dwelling on the property. When an application is made for the building permit, it is recommended that an addendum be prepared to this report that provides additional mitigation measures and guidelines for residential development. The types of mitigation should include best placement for the development envelope, strict landscaping guidelines, plant protection measures, erosion control measures both during and after construction, exotics removal, and additional revegetation with native plants as needed.

Once a building permit is issued, it is recommended that a meeting be held with County Planning, Don Blaha, and the project botanist to determine the status of the restoration program already in place in the previously cleared portions of the property that were subject to red tag violations. The restoration area in the cleared portion of the Pine Forest/Oak Woodland on the northeast side of Santa Cruz Street will likely need to be down-sized (Figure 2).

Letter from the United States Fish & Wildlife Service

Native Vegetation Network received a letter from Mr. David Pereksta with the United States Department of the Interior Fish & Wildlife Service. The letter was addressed to Mr. Kim Tschantz, previous land use consultant for the Blaha Project site, and was dated February 1, 2008. This letter was also sent to Ms. Jessica De Grassi with the Santa Cruz Planning Department. The letter has been included in this report as Appendix D. The Service concurs with the removal of invasive plants and protection measures for Ben Lomond spineflower. According to the letter "Based on a recent habitat assessment, the project site does not support suitable habitat for the Mount Hermon June beetle or the Zayante band-winged grasshopper (Richard Arnold, unpublished data)". "We concur with your determination that take of the Mount

Hermon June Beetle and the Zayante band-winged grasshopper is not likely to occur on the project site". For further information, see the letter from Mr. David Pereksta in Appendix D.

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Table 1. Sandhills Indicator Plants Observed at the Blaha Property*

Scientific Name	Common Name
Cammisonia contorta	Contorted Primrose
Cardionema ramossima	Sand mat
Carex globosa	Globose Sedge
Chorizanthe pungens var. *hartwegiana***	Ben Lomond Spineflower
Eriogonum nudum var. *decurrens***	Ben Lomond Buckwheat
Eriophyllum confertiflorum	Yellow Yarrow
Filago californica	California Filago
Helianthemum scoparium	Peak Rush Rose
Heterotheca sessiliflora ssp. *echioides*	Golden-aster
Horkelia cuneata	Wedge-leaf Horkelia
Lessingia filaginifolia var. *filaginifolia*	California Aster
Lupinus albifrons ssp. *albifrons*	Silver Bush Lupine
Lotus scoparious	Deerweed
Pinus ponderosa (P. benthamiana)	Ponderosa Pine

* Sandhills Species per Marangio and Morgan, 1986.

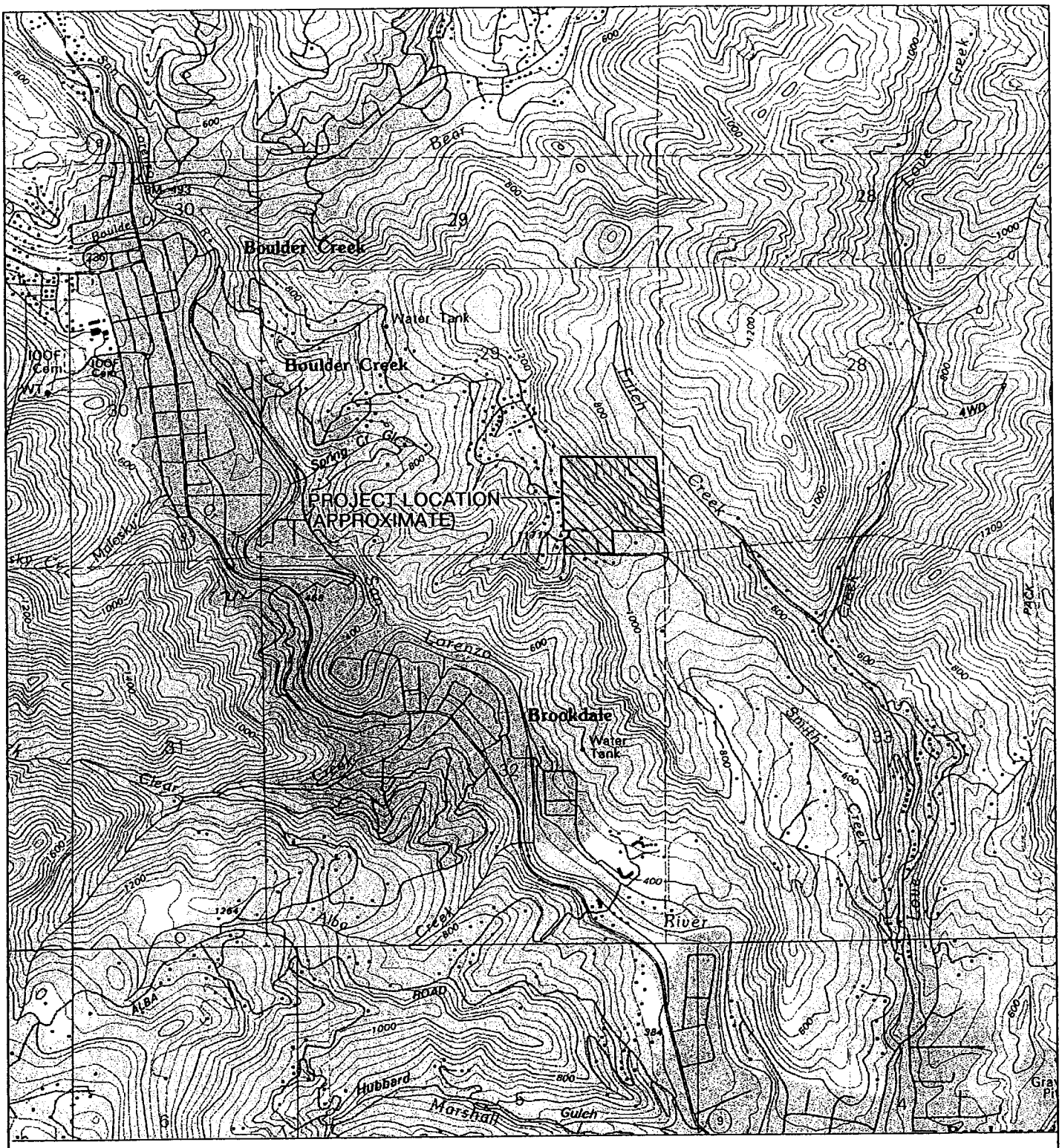
** Special Status

EXHIBIT

Table 2. Summary of Alpaca Project Impacts According to Habitat*

Pine Forest/Oak Woodland (uncleared portion)	Pine Forest/Oak Woodland (cleared portion)	Mixed Evergreen Forest
Dirt Road Access to Barn 228' x 12' = 2,736 sq. ft.	Caretaker's Trailer 10' x 30' = 300 sq. ft.	Barn and Roofed Portion of Paddocks 1,800 sq. ft.
Utilities Trench to Barn (under dirt road) 228' x 6' = 1,368 sq. ft.	Driveway Access to Trailer 175 x 12' = 2,100 sq. ft	Open Portion of Paddocks 3,530 sq. ft.
	Storage Shed and Porch 160 sq. ft.	Dirt Access Road with Woodchips 65' x 12' = 780 sq. ft.
	Septic Tank 100 sq. ft.	Utilities Trench (under dirt road) 65' x 6' = 390 sq. ft.
	Pad for Water Tanks 350 sq. ft.	
	Leach field 140' x 6' = 840 sq. ft.	
	Utilities Trench (under driveway) 175' x 6' = 1,050 sq. ft.	
Net Total: 2,736 sq. ft.	**Net Total: 3,850 sq. ft.**	**Net Total: 6,110 sq. ft.**

* Note that the cleared portion of the Pine Forest/Oak Woodland on the north side of Santa Cruz Street has been evaluated separately, since the level of impact is lower due to the previous removal of trees and shrubs.



Native Vegetation Network 653 Quail Drive • Santa Cruz, California 95060 Telephone/Fax (831) 425-0687	BLAHA PROPERTY Location Map	Figure 1 6/08 PV-120

EXHIBIT G

LEGEND

Alpaca Project Location	———	Proposed Restoration Area	CHOR	Ben Lomond Spineflower
Grazing Test Plot	PF/OW	Pine Forest/Oak Woodland	ERNU	Ben Lomond Buckwheat
Uncleared Portion of Restoration Area	NMC/PF	Northern Maritime Chaparral/Pine Forest	RWF	Redwood Forest
	←	Direction of Rain Runoff	MEF	Mixed Evergreen Forest

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Telephone/Fax (831) 425-0687

BLAHA PROPERTY
Existing Botanical Resources and Proposed Alpaca Project

Figure 2
6/08
PV-120

EXHIBIT G

LEGEND

	Alpaca Project Location	———	Proposed Restoration Area	CHOR	Ben Lomond Spineflower
	Grazing Test Plot	PF/OW	Pine Forest/Oak Woodland	ERNU	Ben Lomond Buckwheat
	Uncleared Portion of Restoration Area	NMC/PF	Northern Maritime Chaparral/Pine Forest	RWF	Redwood Forest
		←	Direction of Rain Runoff	MEF	Mixed Evergreen Forest

Native Vegetation Network

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Telephone/Fax (831) 425-0687

BLAHA PROPERTY
Close up of Proposed Alpaca Barn and Paddocks

Figure 3
6/08
PV-120

EXHIBIT

APPENDIX A

PLANT COMMUNITY DESCRIPTIONS

EXHIBIT G

Existing Plant Communities

Four main plant communities were observed on the parcel: pine forest/oak woodland mosaic; northern maritime chaparral/pine forest mosaic; mixed evergreen forest, and redwood forest. No ponds or streams occur on the property. The vegetation resources of these plant communities/habitats are described below.

Northern Maritime Chaparral/Pine Forest Mosaic

In this plant community, patches of chaparral intermix with patches of pine forest, primarily knobcone pines. The maritime chaparral/pine forest occurs in the drier, south-facing slopes of the parcel, where open Zayante sands are present (Figure 2). This has been designated as a sensitive area. According to Lyons (2001), there are 6.5 acres of northern maritime chaparral/pine mosaic on the property. The dominant shrub is sensitive manzanita (*Arctostaphylos nummularia*), which is considered a locally unique species (Lyons 2001). The northern maritime chaparral/ pine mosaic also includes the following species: brittle-leaved manzanita (*Arctostaphylos tomentosa* ssp. *crustacea*), sticky monkey flower (*Mimulus aurantiacus*), knobcone pine (*Pinus attenuata*), Yerba Santa, chamise (*Adenostoma fasciculatum*), silver bush lupine (*Lupinus albifrons*), coast live oak (*Quercus agrifolia*), and Douglas fir (*Pseudotsuga menziesii*). Sandhills specialty plant species such as yellow yarrow, globose sedge, fragrant everlasting, silver bush lupine, and sand mat (*Cardionema ramoissimum*) may be seen growing in the openings between the chaparral shrubs (see Table 2 for scientific names). These sandhills specialty plants tended to be more prevalent on the loosely consolidated sands compared to the harder sandstone areas.

A ponderosa pine occurs within this habitat near the western boundary of the parcel (Figure 2). Ponderosa pine is considered a locally unique species. Ponderosa pines occur on Zayante sand deposits in the greater Felton/Bonny Doon region. According to Lyons, the few scattered trees on the site suggest that these trees are outlying individuals from the larger ponderosa pine forests occurring to the east in the Ben Lomond/Olympia region. Knobcone pines vastly out number the ponderosa pines.

The central portion (approximately 1.6 acres) of the maritime chaparral/pine forest mosaic was cleared of vegetation in 1999 by the previous owners in order to prepare for survey work and is currently undergoing restoration. The majority of the disturbed area has naturally revegetated with plant species typical of early chaparral/pine forest succession, such as silver bush lupine (*Lupinus albifrons* var. *albifrons*), deerweed (*Lotus scoparius*), Yerba Santa (*Eriodictyon californicum*), peak rush rose (*Helianthemum scoparium*), bracken fern (*Pteridium aquilinum*), and globose sedge (*Carex globosa.*). Old sandy roads traverse the chaparral/ forest mosaic to access the well located near the northwestern corner of the property. The compaction of the sandy soil varies with the upper portions of the roads tending to be harder compared to the lower portions of the roads, which have loosely consolidated Zayante coarse sand that has been eroded/deposited from the upper portions of the site.

Pine Forest/Coast Live Oak Woodland

Mature knobcone pines and coast live oak trees dominate this area. Associated trees include madrone (*Arbutus menziesii*). The sparse understory includes Ben Lomond Buckwheat, sticky monkeyflower, coffeeberry (*Rhamnus californica*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), brittle-leaved manzanita, silver-bush lupine, and bracken fern. Along the western habitat boundary, the pine/oak woodland intergrades with northern maritime chaparral. Dead knobcone pine trees and French broom plants are scattered in the area (Figure 3), and therefore the habitat value has been degraded. Several pines have fallen in recent windstorms, and four to five dead trees are still standing. According to Lyons, the property contains approximately 8.5 acres of pine forest/coast live oak woodland mosaic (Figure 2).

This habitat includes the 0.73 acre area that was cleared in July 2007. The center of the cleared area is devoid of woody vegetation due to stump grinding, whereas outer portions on the south and westside of the cleared area have oak tree stumps and coffeeberry stumps that are re-sprouting.

Most of the herb layer is sparsely distributed due to the dense (1 to 2 feet deep) carpets of oak leaves, pine needles, litter, and forest duff. Patches of Fremont's star lily occur in wetter portions of the woodland. The duff and down wood are heavy in the area subjected to land clearing. Open Zayante sands are evident on the lower portion of the slope along Santa Cruz Street. Some of these open sandy areas along the street support sandhills indicator species such as silver bush lupine, Ben Lomond buckwheat, sandmat, globose sedge, and yellow yarrow (*Eriophyllum confertiflorum*). French broom has infested portions of the roadside.

As previously observed by Lyons in 2001 and 1999, a colony of Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*), an endangered plant species, was observed north of Santa Cruz Street in the southeast corner of the property near neighboring driveways (see additional discussion under Special Status Plant Species). This colony is located far from the proposed new residence, but is located across the street from several existing homes with developed yards (Figure 2).

Mixed Evergreen Forest

This plant community includes a drainage area by the bend in Santa Cruz Street near the southwest corner of the property (Figure 2). According to Lyons (2001), there is approximately 2.5 acres of mixed evergreen forest on the south side of Santa Cruz Street.

The structure of the mixed evergreen forest is diverse and includes patches of trees and shrubs with occasional openings in the forest canopy. The dense tree over story is dominated by Douglas fir and coast live oak (*Quercus agrifolia*). In the bottom of the drainage, scattered coast redwood trees occur that are 2 to 3 feet in diameter at breast height (DBH). In drier areas, there are groves of coast live oak and madrone trees. The shrub layer is dominated by poison oak (*Toxicodendron diversilobum*), creeping snowberry (*Symphoricarpos mollis*), and California blackberry (*Rubus ursinus*). French broom (*Genista monspessulana*) shrubs occur in the sunnier locations near the road. The herbaceous layer includes hispid honeysuckle (*Lonicera hispidula var. vacillans*), California sword fern (*Polystichum californicum*), Yerba buena (*Satureja douglasii*), bracken fern (*Pteridium aquilinum*), and Pacific sanicle (*Sanicula crassicaulis*).

Redwood Forest

Redwood forest occurs in northern portions of the property on a north-facing slope above Fitch Creek (Figure 2) and occupies approximately 22 acres of the parcel. The majority of the trees are mature specimens, ranging from 1.0 to 3.0 feet in DBH. Trees tend to be stunted at the top of the south-facing ridge, where the soil profiles are thin on Santa Margarita sandstone. The dominant tree in the over story is coast redwood (*Sequoia sempervirens*). Tan oak, Douglas fir, madrone, and coast live oak trees also occur in lesser amounts. The understory is less diverse in species composition compared to the other habitats present at the site, and includes the following species: poison oak, Fremont's star lily (*Zigadenus fremontii*), California blackberry, and hispid honey suckle.

Appendix B

Rare Plant Species Information

The following plant species are illustrated and described in this appendix:

Ben Lomond Spineflower (*Chorizanthe pungens* var. *hartwegiana*)

Ben Lomond Buckwheat (*Eriogonum nudum* var. *decurrens*)

(Native Vegetation Network, August 2007)

EXHIBIT G

Ben Lomond Spineflower (*Chorizanthe pungens var. hartwegiana*)

Conservation Status

The Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana)* is on both the State and Federal list of Endangered Species, as well as the CNPS list of most threatened and endangered plants (List 1B) (Tibor 2001).

Distribution

Ben Lomond spineflower only occurs on the Zayante sands soils of Santa Cruz County near the towns of Ben Lomond, Olympia, Scotts Valley, Felton, Bonny Doon, Zayante, and Boulder Creek. These sandstone soils support several unique plant communities, including the coast range ponderosa pine forest and the northern maritime chaparral. The majority of occurrences of *C. pungens* var. *hartwegiana* are found on privately owned lands (McGraw 2004).

Description

Ben Lomond spineflower is an annual herb in the Buckwheat Family (Polygonacea). It has dark pink to purple spiny bracts as part of the dense flower heads. The heads are medium in size (1 to 1.5 cm in diameter). The plant is low growing, and when moisture is ample in the spring, its trailing stems may form a groundcover (see photo).

EXHIBIT G

Ecology

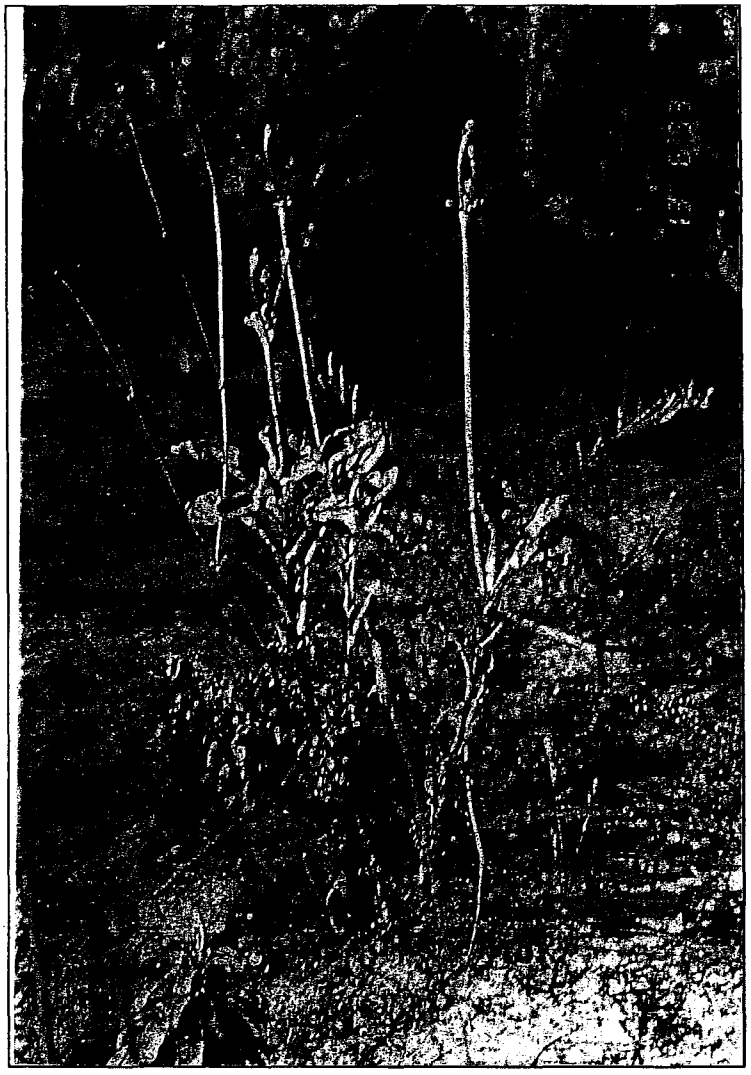
Ben Lomond spineflower is endemic to the sandhills of Santa Cruz County. Experimental research has shown that shade intolerance is the primary cause for the restriction of the Ben Lomond spineflower to the sandhills (McGraw and Levin 1998).

Plants are found in open sunny areas that typically lack a dense tree overstory. At the BDER, the spineflower is primarily associated with two plant communities, the coast range ponderosa pine forest and northern maritime chaparral. The Ben Lomond spineflower grows along trails and in chaparral openings. Research has shown that tree litter on the soil surface interferes with plant establishment, and therefore lowers overall population growth (McGraw 2004).

Ben Lomond spineflower is a small, annual herb. Seeds germinate with the first hard rain in fall that usually occurs between mid-October and mid-November. Seedlings form a basal rosette of spoon-shaped leaves. The plant exhibits considerable variability in morphology and phenology depending on habitat and microclimate. Plants growing in full sun (i.e. away from trees and shrubs) without dense European annual exotic plants are prostrate and often very large. Basal leaves can exceed 5cm and flowering stem branches can exceed 20 cm in length. In contrast, plants growing in competition for light are much smaller and erect.

When the spiny seeds are mature, they easily shatter and fall off the plant or are dispersed by animals. The spines on the seed allow them to adhere to animal fur including mule deer (*Oidocoileus hemionus*), coyote (*Canis latrans*), and rabbits (*Sylvilagus* spp.).

Ben Lomond Buckwheat (*Eriogonum nudum var.decurrens)*



Conservation Status

The Ben Lomond buckwheat (*Eriogonum nudum* var. *decurrens*) is not State or Federally listed; however, it is on the CNPS list of most threatened and endangered plant species (List 1B, Tibor 2001).

Distribution

The Ben Lomond buckwheat is endemic to the sandhills of Santa Cruz County, and occurs near the towns of Boulder Creek, Ben Lomond, Olympia, Zayante, Felton, Scotts Valley, Glenwood, and Bonny Doon.

EXHIBIT (

Description

This variety of *Eriogonum nudum (E. nudum* var. *decurrens)* is a small perennial shrub in the buckwheat family, and has clusters of small pinkish flowers born in a flower head born on a stalk that has no leaves. This variety is also commonly called naked-stemmed buckwheat.

The Ben Lomond buckwheat is a perennial herb or occasionally a suffrutescent (subshrub) with a woody, persistent stem. Including the flower stalks, plants range from 30-200 cm tall (Hickman 1993). The thick, green leaves frequently have reddish coloration. Although the leaves may wilt in response to summer drought, they revive at the onset of the rainy season (personal observation Valerie Haley). Though many wither and shrink during the summer, most are persistent. Leaves have dense white hairs coating the underside of leaves, an apparent adaptation to drought stress. The white undersides reflect the sunlight back at the sandy soil surface.

The very small (3-4 mm), radial, white flowers of Ben Lomond buckwheat form a dense cluster at the end of long gray-green flower stalks, which give the inflorescence an open appearance. The fruits are 1.5-3.5 mm long achenes that remain enclosed in the orange to red-brown dried petals (Hickman 1993).

Ecology

Seeds germinate at the beginning of the rainy season when warmth and moisture are both available. Seedlings develop a basal rosette of leaves during the first year after germination. Plants typically flower between June and August, and seed set occurs in late summer-early fall.

Endemic to Santa Cruz County, the Ben Lomond buckwheat is found only on soils of the Zayante Series which are low nutrient, highly drained sand soils derived from the weathering of uplifted marine sediments and sandstones of the Santa Margarita formation (USDA 1980). Within the sandhills, the Ben Lomond buckwheat is found in both the sand parkland and silver-leaf manzanita chaparral plant communities. Ben Lomond buckwheat is frequently found in the gaps in chaparral and along trails.

Fire removes aboveground biomass of adult Ben Lomond buckwheat individuals; however, most plants successfully resprout in the winter and flower in the spring following fire, suggesting that this plant is adapted to fire (McGraw 2004).

Appendix C

Field Monitoring Data Sheets

(Native Vegetation Network, 2008)

EXHIBIT G

Reconnaissance Surveys

Field Data Sheet

Date: _____ **Page** _____ of _____

Persons Conducting Survey: _____

Trail Location: _____

Plant Grouping	Visual Estimate of Percent Cover
Trees	
Shrubs	
Herbaceous	
Mulch / Litter	
Bare Ground	

Comments:

Erosion Problems (Note Area Size and Location): _____

_____

_____

Invasive Species Creating a Problem or Potentially a Problem: _____

_____

Health and/or Vigor Problems Associated with Species: _____

_____

_____

Extent of Natural Regeneration: _____

_____

_____

Photograph Record: _____

_____

Other: _____

_____

_____

EXHIBIT G

Vegetation Sampling for Percent Vegetative Cover*

Field Data Sheet

Persons Conducting Survey: _____ **Page** ____ **of** ____

Date: _____ **Soil Type:** _____

Native Plant Species	Belt #	Belt #	Belt #	Belt #	Belt #
Trees:					
Shrubs:					
Herbs & Grasses:					
% Mulch / Litter					
% Bare Ground					
Total Cover					
Non-Native Plant Species	**Belt #**	**Belt #**	**Belt #**	**Belt #**	**Belt #**
Trees:					
Shrubs:					
Herbs & Grasses:					
% Mulch / Litter					
% Bare Ground					
Total Cover					

* Enter percent vegetative cover in column according to plant species and belt number.

EXHIBIT G

Appendix D

Letter from the United States Fish & Wildlife Service

EXHIBIT G

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
2008-I-0063

February 1, 2008

Kim Tschantz
Cypress Environmental and Land Use Planning
Post Office Box 1844
Aptos, California 95001

Subject: Proposed Construction at 225 Santa Cruz Street (APN 90-131-15), Boulder Creek, Santa Cruz County, California

Dear Mr. Tschantz:

We are responding to your letter, dated September 21, 2007, and received in our office on October 1, 2007, requesting our concurrence with your determination that the subject project may affect but is not likely to adversely affect the federally endangered Mount Hermon June beetle (*Polyphylla barbata*) and Zayante band-winged grasshopper (*Trimerotropis infantilis*). You made your request on behalf of the project proponents and landowners, Mr. Donald Blaha and Ms. Kevin Mallory. The U.S. Fish and Wildlife Service (Service) listed the Mount Hermon June beetle and Zayante band-winged grasshopper as endangered species on January 24, 1997 (62 Federal Register 3616). The proposed project consists of constructing a single-family dwelling and associated uses (driveway, etc.) within a 0.87-acre development envelope on the subject parcel.

A portion of the subject property, including the area of the development envelope, is comprised of soils known as "Zayante sands." These soils support the Zayante sandhills ecosystem that occurs exclusively in the Santa Cruz Mountains near the city of Scotts Valley and the communities of Ben Lomond, Mount Hermon, Felton, Olympia, Corralitos, and Bonny Doon.

The Mount Hermon June beetle is found in association with vegetation of the Zayante sandhills, which is characterized by a mosaic of ponderosa pines (*Pinus ponderosa*), silverleaf manzanita (*Arctostaphylos silvicola*), and areas that are sparsely vegetated with grasses and herbs. The larvae of the Mount Hermon June beetle are fossorial and feed on plant roots. Adults can also be found within the sandy soils during a portion of their lifespan and may be active above ground between mid-May and mid-August. Recent survey efforts have documented ponderosa pine trees and/or other native plant species as common features of nearly all of the known Mount Hermon June beetle locations (Richard Arnold, entomologist, unpublished data; Jodi McGraw, ecologist, unpublished data). For this reason, the roots of ponderosa pine trees and other native plants are potential food sources for Mount Hermon June beetle larvae that live in burrows in Zayante soils.

EXHIBIT G

The Zayante band-winged grasshopper is also endemic to the Zayante sandhills. Within this limited distribution, the Zayante band-winged grasshopper is restricted to areas of barren or sparsely vegetated loose sands that are exposed to sunlight. This habitat type is commonly referred to as "sand parkland." Adult Zayante band-winged grasshoppers are usually active from late July through late October.

The Service's responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any endangered or threatened species. Section 3(18) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species.

Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways. If a project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply to the Service for an incidental take permit, pursuant to section 10(a)(1)(B) of the Act. In your September 21, 2007, letter, you stated that there is no Federal involvement in this project.

Based on a recent habitat assessment, the project site does not support suitable habitat for the Mount Hermon June beetle or Zayante band-winged grasshopper (Richard Arnold, unpublished data). Although Zayante soils occur on portions of the subject parcel, the proposed project site and the immediate vicinity are absent of the indigenous sand parkland vegetation necessary to support Zayante band-winged grasshopper. Therefore, no Zayante band-winged grasshoppers are expected to be present on the subject property. Presence-absence surveys conducted in 2001 and 2007 resulted in no detections of Mount Hermon June beetle. Similarly, presence-absence surveys at nearby locations in Boulder Creek have failed to find any Mount Hermon June beetles. Although the habitat conditions at the subject property appear to be suitable to support the Mount Hermon June beetle, the findings of the surveys indicate that this portion of the Zayante sandhills is not occupied by the Mount Hermon June beetle. For these reasons, we concur with your determination that take of Mount Hermon June beetles and Zayante band-winged grasshoppers is not likely to occur on the project site during the proposed construction activities. However, please be advised that provisions of the County of Santa Cruz's Sensitive Habitat Ordinance may apply to your proposed project. You should contact the County Planning Department to determine if your project is within the County's jurisdiction.

The federally endangered Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*) has been identified on the subject property. A colony of 800-900 plants occurs near the southeastern corner of the property, distant from the proposed development envelope. Development of the single-family dwelling should not directly impact the colony of Ben Lomond spineflower; however, increased human uses on the property may result in indirect impacts to the species. The applicants have proposed to implement avoidance measures to reduce potential impacts to Ben Lomond spineflower. A protective fence will be installed to discourage off-road travel in the vicinity of the colony. In addition, the landowners will remove/control the occurrences of invasive non-native plants that occur within the chaparral/pine and pine/oak habitats, including French broom (*Genista monspessulana*), dog tail grass (*Cynosurus cristatus*), and rattlesnake grass (*Briza maxima*). These invasive species will be removed in a manner that minimizes disturbance to the sensitive botanical resources. We support these avoidance measures and agree that implementation of these measures should minimize indirect impacts to Ben Lomond spineflower.

We appreciate your coordination with us to ensure that the proposed project will avoid effects to federally listed species within the Zayante sandhills. If you have any questions regarding this letter, please contact Douglass Cooper of my staff at (805) 644-1766, extension 272.

Sincerely,

David M. Pereksta
Assistant Field Supervisor

cc: Don Blaha
Kevin Mallory
Jessica de Grassi, Santa Cruz County Planning
Val Haley, Native Vegetation Network
Richard Arnold, Entomological Consulting Services, Ltd.

EXHIBIT

PROPOSED ALPACA FARM DEVELOPMENT: PRELIMINARY DESCRIPTION AND MANAGEMENT RECOMMENDATIONS BLAHA PROPERTY, 225 SANTA CRUZ STREET, BOULDER CREEK, CA 95006

Prepared for:

Don Blaha
225 Santa Cruz Street
Boulder Creek, California 95006

Prepared by:

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June 9, 2008

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EXHIBIT G

Proposed Alpaca Farm Development:
Preliminary Description and Management Recommendations
Blaha Property, 225 Santa Cruz Street, Boulder Creek, CA 95006

I. Purposes of this Report and Tasks Completed

This report was prepared to provide recommendations about the development and operation of an alpaca farm by Don Blaha and his family at 225 Santa Cruz Street, Boulder Creek, California (APN 090-131-15). This property is approximately 41 acres in size, of which less than one acre in the southwest corner is proposed for development of the alpaca barn, paddocks, access road, and test grazing area (Figure 3)[2].

At the request of the property owner, Don Blaha, I visited and examined the property six days in April and May 2008 to assess: (a) site conditions; (b) constraints related to sensitive species and habitats; (c) constraints related to erosion and water pollution; and (d) feasibility to develop an alpaca farm. In that process, I discussed and evaluated needs, functions, and alternatives for the project with Valerie Haley (botanist and restoration specialist), Steve Singer (Certified Professional in Erosion & Sediment Control and Certified Professional in Stormwater Quality), Richard Arnold (entomologist), and Richard Casale (U.S.D.A. Natural Resources Conservation Service District Conservationist), in addition to Don Blaha. I have reviewed and incorporated the results presented in the reports of the other experts (Arnold 2007; Casale 2008; Haley 2008b; and Singer 2008). This report was prepared for presentation to the Santa Cruz County Planning Department in conjunction with the reports of the other experts.

Mr. Blaha plans to develop a Conservation Plan for the alpaca farm with technical assistance from the Natural Resources Conservation Service and other qualified professionals (Casale 2008). This report provides preliminary assessments and recommendations to be incorporated into the future NRCS plan, but is not a formal management plan. Furthermore, this report recommends layouts for the proposed barn, paddocks, and access road in order to assess potential environmental effects and to plan for mitigations and stormwater management; it does not provide designs for construction or operation. Qualified professionals will provide such designs in the future.

Principal conservation constraints in the alpaca farm concept are to use best management practices, avoid sensitive habitats and special-status species (Haley 2008a and 2008b), and to properly manage stormwater (Singer 2008). The resulting concept is an alpaca farm concentrated in the Mixed Evergreen Forest zone of the property (Figure 3). No part of the proposed development or agricultural use will occur in the sensitive Northern Maritime Chaparral / Pine Forest zone. Other sites, including most of the Redwood Forest zone and other areas of the Mixed Evergreen Forest zone have slopes too steep, litter too deep, and too little natural forage to be appropriate for either infrastructure development or grazing. No grassland

[2] Figure 3 was prepared in collaboration with, and is attached by permission of Native Vegetation Network and Steve Singer; there is no Figure 1 or 2 included in this report.

or shrubland is available for use as typical pasture. Thus the proposed alpaca infrastructure and operations will be intensive and centered on the barn and paddocks, with an adjacent area designated for testing of the effects of carefully planned grazing with tethers during the daytime in the sensitive Pine Forest / Oak Woodland zone. If the tests determine through monitoring that tethered grazing is suitable, a program of regular grazing may be expanded into other areas of the Pine Forest / Oak Woodland zone (Haley 2008b). The proposed alpaca infrastructure and operations will collect and remove the waste water and alpaca waste to avoid percolation through the sandy soils and potential pollution of the nearby stream (Singer 2008).

II. Project Description

A. Purposes and activities planned

The proposed alpaca farm is to be constructed and operated for animal husbandry and enjoyment purposes, including all the infrastructure and operations of a typical alpaca farm in a remote forested setting. This does not include related commercial infrastructure or operations at the site, which should be planned and evaluated in a separate process. Activities may include alpaca infrastructure construction and maintenance, feeding, watering, exercising, handling and gathering, test grazing, breeding, health care, cleaning, shearing, training, and related animal care and transport. Products may include alpaca live breeding stock, alpaca fiber and related products, and boarding services for alpacas owned by others.

B. Locations of infrastructure and activities

The proposed alpaca barn and paddocks will be constructed within the Mixed Evergreen Forest zone (Figure 3) in the southwest corner of the property. This site was selected because it is most suitable for an alpaca farm: (a) space for construction of a barn and sheltered paddocks between the tall redwood trees; (b) outside of the riparian corridor and away from the stream terrace edge; (c) gentle slopes (less than 15%); (d) less forest litter fall than other sites; and (e) opportunity to open the forest canopy by removing selected small diameter trees. Other areas within the Mixed Evergreen Forest zone are unsuitable due to: (a) slopes too steep; (b) too little forage; (c) too deep litter; and (d) too close proximity to neighbors. The Redwood Forest zone is generally unsuitable due to: (a) the excessively steep slopes (approximately 60%) for infrastructure and access; (b) too little forage; and (c) too deep forest litter. In addition, the integrity of the soils and the existing woody plants on the steeper slopes are important for erosion control, and should not be subjected to livestock grazing or road construction (Casale 2008). The sensitive Northern Maritime Chaparral / Pine Forest zone is inappropriate because of its protected status.

Grazing in an un-forested area of the property would improve the health and vigor of the alpacas. Such grazing would provide an important option for alpaca exercise, sunning, and utilization of natural forage. The proposed grazing test area was placed in the sensitive Pine Forest / Oak Woodland zone because of the potential for habitat enhancement (Haley 2008b). This would occur through reduction of non-native weeds and invasive plants, reduction of herbaceous thatch, and creation of bare soil patches,. These effects have the potential to create more open substrate for colonization and establishment of the native Sandhills indicator plants. If the tests determine

that tethered grazing is indeed beneficial, a program of regular grazing may be expanded into other areas of the Pine Forest / Oak Woodland zone.
The access road location was selected to follow a previous roadway and to avoid disturbance of the sensitive Pine Forest / Oak Woodland habitat, while providing access for the managers by foot and vehicle between the barn and paddock area and Santa Cruz Street.

C. Alpaca farm sustainability

Alpaca and llama operations, like horse operations, require large and frequent inputs of financial and labor resources. Labor will be required on a daily basis for numerous activities, including: (a) maintenance of the alpaca infrastructure; (b) cleaning of the latrine sites and scattered manure; (c) moving the animals; (d) moving and placing feed in feeders; (e) general care of animal well-being; and (f) collection and storage of manure and waste straw. Somewhat less frequent maintenance will be required for other activities, including: (a) cleaning the drainage structures; (b) pumping the wash water tank; (c) disposing of the wash water; and (d) maintenance of the manure and straw stockpiles and compost bins. Frequent expenditures will be required for at least the following: (a) purchases of feed, tack, and other supplies; (b) health care services; (c) shearing services; (d) manure packaging; and (e) marketing. Since alpaca fiber and live breeding stock produce revenues infrequently, expenditures will likely be greater than income for long periods. The frequency of revenues from alpaca manure sales are an unknown contribution to the planned enterprise, but might provide a more reliable and regular source of income than the fiber or breeding stock. Thus a careful economic analysis should be conducted before launching the alpaca enterprise.[3]

III. Infrastructure Development

A. Barn and paddocks

The proposed barn and roofed paddock area encompasses 40 feet by 45 feet (or 1800 square feet). All of that space will have impermeable flooring with drains leading to a wash water tank. The proposed un-roofed paddock area encompasses an additional 3530 square feet. The roofed and un-roofed areas of each paddock will be open without obstruction to allow free movement of the alpacas. The barn will also provide indoor stalls with doors between the adjacent outdoor paddocks.

The exact layout of sub-divisions for the proposed paddocks has not been determined. Each paddock will have both shelter under a shed-roof attached to the barn and an open air space adjacent to the barn and within the secure perimeter fence. The surface of the unroofed portion of each paddock will be natural soil, which should be left at natural grade without grading as much as possible (Casale 2008). The roofed portion of the paddocks will have an impermeable surface and a basin with drain installed under the spot selected for the common latrine.

[3] A recent study by University of California scientists questioned the economic feasibility of alpaca enterprises based on either fiber or breeding stock sales (Saitone and Sexton 2006).

EXHIBIT G

B. Runoff and drainage

The roof runoff and wash water drainage from the barn and roofed paddock areas will be separated and drained appropriately to avoid potential pollution of the stream (Singer 2008). The roof will drain through a gutter and downspout system, then conveyed via pipe to the designated hillside and pipe outlet at a coir water-spreader log for percolation through redwood litter and soil (Figure 3). Within the un-roofed paddocks, the downslope margins will be elevated with an earthen berm or coir log to contain any dislodged soil. The access road will be covered with wood chips, and its drainage will be directed appropriately (Singer 2008). The northernmost 85 feet will be out-sloped, while the rest of the road will be in-sloped and dissipated with a coir log water spreader. These arrangements will require management attention and labor for periodic maintenance, including: (a) removal of any sediment deposits at the in-slope edges of the road and on the uphill sides of the paddock berms and elsewhere; and (b) restoring that sediment to its place of origin.

The wash water from the impermeable barn floor and the paddock floors under the shed-roofs (including the latrines) will be drained separately from the rain runoff water and diverted into a partially buried storage tank through concrete V-ditches, pipes, or other means (Singer 2008). The storage tank will be located at the end of the proposed access road (Figure 3). This arrangement will require management attention and labor for periodic maintenance, including pumping of the tank when it becomes full into a tank truck and transporting that waste water to the septic tank system near the caretakers unit.

C. Barn and paddocks functions and design elements

To service the alpacas, the proposed barn should provide indoor stalls with feeding and watering stations, a work area, feed storage, health care station, washing sink, work counters, tack and equipment storage cabinets, cleaning hose, and other essential features. The paddocks sub-divisions should be arranged with modular fencing (such as the portable pipe corral fencing referred to by Richard Casale (2008)), feeding and watering stations, a catch pen, and a chute. The alpaca latrines should be located under the roofed portion of the paddocks.

D. Grazing test area dimensions

The proposed grazing test area will be developed in a 80 feet by 80 feet square (6400 square feet) as described by Valerie Haley (2008b).

E. Fencing

I recommend installing fencing of eight feet height of 2 inch by 4 inch welded barbless wire to prevent alpaca escape, alpaca jumping between paddocks, and access by predators and marauding dogs. Furthermore, I recommend two strands of electrified wire (powered by solar panels) be installed on the outside of the perimeter fenceline, one 6-12 inches off the ground and the other near the outside top of the fence to discourage digging under the fence and jumping over the fence by wildlife and dogs. The Santa Cruz Mountains are populated by coyotes and mountain lions, both of which can be significant predators on alpaca. While the recommended

fencing will function as a barrier to movements by middle- and large-sized wildlife through the proposed barn and paddock area, the limited area of this barrier and the absence of fencing in the remainder of the Mixed Evergreen Forest zone should not significantly impede existing wildlife movements. This type of fencing, like all other livestock fencing, will require management attention and labor for periodic maintenance, including checking for failures and damage, and making repairs as needed.

F. Watering facilities and supply

Alpacas and other Camelids are capable of enduring relatively long periods without access to water, but they will perform better with sufficient supplies of clean water. Water is essential to the optimal health of all livestock, including alpacas, at all times. Watering systems should be designed to provide automatic re-filling of small troughs or basins elevated at least 18 inches off the ground in both the barn stalls and the paddocks. Since most middle- and large-sized mammalian wildlife will be prevented from access to the barn and paddocks, no special watering trough design should be considered for them. However, birds and bats may be attracted to and use any water developed in the open paddocks. This use is less likely if the watering toughs or basins are located under the shed-roofs, but more likely if installed in the open portions of the paddocks. In the latter case, the design elements described for cattle watering by Bat Conservation International (2008) should be considered to avoid harm to birds and bats.

To maintain the supply of water in the watering basins or troughs, there must be a reliable source of clean water. The water will be piped directly from the water supply for the Blaha residence area across Santa Cruz Street, with pipes buried along with utility lines under Santa Cruz Street and the alpaca farm access road.

The watering facilities and sources will require management attention and labor for periodic maintenance to assure that they function properly, including checking for failures and damage, and making repairs as needed.

G. Manure and waste straw composting, manure stockpiling

Alpaca manure is a valuable resource that can be collected, packaged, and sold. The common latrine behavior of alpacas makes this activity somewhat easier than for manure of other livestock. The Blahas plan to develop this enterprise as part of their alpaca operation. Manure should be collected and stored on a daily basis to reduce problem flies, potential pollution of the stream, and maintain the nutrient and moisture content of the manure for packaging and sale. Manure not used for such an enterprise, straw used in the latrines to absorb urine, and bedding material must be composted, stockpiled, and disposed of properly as described by Richard Casale (2008). The location of a manure stockpiling facility has not been determined.

The composting and stockpiling facilities will require management attention and labor for periodic maintenance to assure that they function properly, including checking for failures and damage, and making repairs as needed.

H. Access road and utility lines

The route of the proposed access road to the alpaca barn and paddock area will be 12 feet wide and covered by wood chips as described by Steve Singer (2008) and Valerie Haley (2008b). This road is essential to provide access for management activities, including: (a) transport of construction materials, construction and maintenance labor, and alpacas in livestock trucks; (b) feed delivered in trucks; (c) access for the waste water tank pumping truck; and (d) access by other vehicles. Construction of a utility trench and burial of the water pipes, electric lines, and telecom lines will be necessary along Santa Cruz Street and the access road.

IV. Alpaca Management

A. Numbers and class of animals

The layouts of the proposed alpaca barn and paddocks are of sufficient size to accommodate up to eight adult alpacas. The main limiting factors are the absence of open natural grazing area and paddock size. A larger alpaca operation would require larger paddocks and grazing pasture.

B. Shelter and exercise requirements

Alpacas require both protection from and access to the outdoors. Shelter from the sun, wind, falling tree litter, winds, and precipitation is required, especially in areas of more extreme weather or risk of exposure such as the Santa Cruz Mountains. Shelter may be simple, such as a roofed open-sided shed at the corner of a paddock or pasture, or a more elaborate structure. Alpacas prefer tall ceilings with openings or windows to allow abundant natural light and air circulation. Alpacas, like other livestock, need both rest and exercise, and should be allowed to roam and graze as much as feasible. The shelter should be accessible at all times.

C. Social Behavior

Alpacas, like llamas, are herding animals, and require paddock configurations to allow planned social contacts. The arrangement and gating of the paddock sub-divisions should allow the animals to congregate, or to be separated by classes as appropriate: older breeding males, younger males, young females, and pregnant females. This can be accomplished with gates that are designed to be latched open when interactions are planned. If social contact is prevented by fencing, alpacas will likely attempt to jump over the fence. So the internal fencing must be tall enough to prevent jumping access.

Alpacas, like llamas, create and make use of a common latrine site for depositing both manure and urine. Most of the manure and urine will be deposited in one place, thus making clean-up easier and risks of flies and aquifer pollution less. The common larine behavior is adaptable, such that animals will use the site where ever it is located. This affords the opportunity for the alpaca managers to move the latrine site to a desired location.

EXHIBIT C

D. Feed requirements

Alpaca and llama feeding habits include both herbaceous and woody forages, with browsing of woody material preferred where and when it is available. They will also consume herbaceous forage, which is usually only available in significant quantities where forest canopy is opened or in grassland with abundant sunlight. There is no natural pasture available for grazing at the Blaha property, with the exception of potential future expansion of tethered grazing in the Pine Forest / Oak Woodland zone. Thus the current plan for this alpaca operation includes almost 100% supplementary feeding, with the feed purchased and delivered from external sources. The purchasing and storage of feed will require management attention and labor to assure that sufficient feed does not spoil due to exposure to moisture or rodents, and is always available.

E. Forest canopy and woody understory opening to improve alpaca conditions

Limited opening of the forest canopy by clearing of live and dead trees, and clearing of understory shrubs and tree limbs may be appropriate for fire hazard reduction and to improve conditions for the alpacas in the vicinity of the proposed barn and paddocks (Haley 2008b). This would be desirable to provide more exposure to sunlight and air circulation in the paddocks.

V. Grazing Management

A. No pasture available

Because of the constraints on alpaca infrastructure development and grazing in the sensitive habitats, the proposed alpaca operation will not include any regularly utilized pasture. Instead the operation will be intensive and centered on the barn and paddocks. Grazing might occur in fenced paddocks, but any available forage there will likely be consumed soon after arrival of the alpacas. Where tethered grazing is allowed in Redwood Forest and Mixed Evergreen Forest apart from the barn and paddocks, it should be excluded from slopes of 30% or greater (Singer 2008) or where sensitive plants are present (Casale 2008 and Haley 2008b).

B. Tethered grazing test in Pine Forest / Oak Woodland

An area adjacent to the proposed alpaca barn and paddocks site has been designated for testing of the effects of carefully planned grazing with tethers during the daytime in the sensitive Pine Forest / Oak Woodland zone. If the tests determine through monitoring that tethered grazing is suitable, a program of regular grazing may be expanded into other areas of the Pine Forest / Oak Woodland zone (Haley 2008b).

Tethered grazing in unfenced pasture will leave the alpacas vulnerable to harm by predaceous wildlife or marauding dogs. Therefore, the alpaca managers must vigilantly supervise any tethered alpaca during its entire grazing period.

C. Forage palatability, toxicity, and potential trampling impacts

Understanding the potential palatability and toxicity of the available forage plants is important before allowing alpaca to consume these plants. Understanding their pest plant status and potential effects of trampling is important before allowing alpaca grazing. Table 1 identifies these plant characteristics based on the available scientific and professional literature for the known plants or their close relatives.

Table 1. Forage Characteristics of Plants Reported or Observed at the Blaha Property (with highlights of special management concerns):

Species[4] (Common and Latin Names)	Plant Community[5]			Native/ Non-Native (N/N-N)[6]	Tree/Shrub/ Herb/Grass (T/S/H/G)	Pest (Y/N)[7]	Palatable (Y/N)[8]	Toxic (Y/N)[9]	Trampling Impact (Y/N)[10]
	PF/OW	MEF	RWF						
Madrone (*Arbutus menziesii*)		x	x	N	T	N	Y?	N	N
Brittle-leaved manzanita (*Arctostaphylos tomentosa var. crustacea*)	x			N	S	N	N	N	N
Ben Lomond spinefower (*Chorizanthe pungens var. hartwegiana*) *Special-Status*	x			N	H	N	?	?	?
Hazelnut (*Corylus cornuta var. californica*)			x	N	S	N	Y	N	N
Ben Lomond buckwheat (*Eriogonum nudum var. decurrens*) *Special-Status*	x			N	H	N	Y?	?	Y
Yellow yarrow (*Eriophyllum confertiflorum*)	x			N	S	N	?	?	?
French broom (*Genista monspessulana*)	x			N-N	S	Y	?		Y?
Tan oak (*Lithocarpus densiflorus*)			x	N	T	N	Y?	N	N
Hispid honeysuckle (*Lonicera hispidula var. vacillans*)		x	x	N	S	N	Y?	Y?	N?
Deerweed (*Lotus scoparius*)	x			N	S	N	Y?	N	Y?
Silver-bush lupine (*Lupinus albifrons var. albifrons*)	x			N	S	N	?		?

[4] Haley 2008a; personal observations
[5] Haley 2008a
[6] CNPS 2008; Haley 2008a; Hickman 1993
[7] Bossard, Randall, and Hoshovsky 2000; Cal-IPC 2006
[8] BLM 2001; Sampson and Jespersen 1963; USFS 2008
[9] Fuller and McClintock 1986; USFS 2008
[10] CNPS 2008; USFS 2008

EXHIBIT

Species[4] (Common and Latin Names)	Plant Community[5]			Native/ Non-Native (N/N-N)[6]	Tree/Shrub/ Herb/Grass (T/S/H/G)	Pest (Y/N)[7]	Palatable (Y/N)[8]	Toxic (Y/N)[9]	Trampling Impact (Y/N)[10]
	PF/OW	MEF	RWF						
Lupine (*Lupinus bicolor*)	x			N	H	N	?		?
Melica spp.	x			N	G	N	Y	N	N
Sticky monkeyflower (*Mimulus aurantiacus*)	x			N	S	N	N?	?	Y?
California sword fern (*Polystichum californicum*)		x	x	N	S	N	?	?	?
Douglas fir (Pseudotsuga menziesii)		x	x	N	T	N	N	N	N
Bracken fern (*Pteridium aquilinum var. pubescens*)	x	x	x	N	H	N	N		N
Coast live oak (*Quercus agrifolia*)		x	x	N	T	N	Y?	N	N
Coffeeberry (*Rhamnus californica*)	x			N	S	N	Y	N?	N
California blackberry (*Rubus ursinus*)	x		x	N	S	N	Y	N	N
Pacific sanicle (*Sanicula crassicaulis*)		x		N	H	N	?		Y
Yerba Buena (*Satureja douglasii*)		x		N	S	N	N?	?	Y?
Redwood (*Sequoia sempervirens*)			x	N	T	N	N?	?	N
Creeping snowberry (*Symphoricarpos mollis*)		x		N	S	N	Y?	?	?
Poison oak (*Toxicodendron diversilobum*)	x	x	x	N	S	N	Y	N	N
Fremont's star lily (*Zigadenus fremontii*)	x	x	x	N	H	N	N		?
Globose sedge (*Carex globosa*)	x			N	H	N	?	?	N

Priority management concerns and recommendations:

1. *Special-Status Plants.* The two special-status plants (Ben Lomond Spineflower and Ben Lomond Buckwheat) are potentially vulnerable to herbivory or trampling due to alpaca grazing and an alpaca farm operation. Occurrences of both plants where alpacas have access should be fenced appropriately to exclude alpaca impacts. Occurrences of any other Sand Hills indicator plants that may be vulnerable within alpaca access should also be fenced to exclude alpacas (Haley 2008b and Casale 2008).

2. *Toxic Plants.* The Fremont's star lily and bracken fern are likely to be highly toxic to livestock. The lupines, French broom, and Pacific sanicle can also be toxic to livestock. Occurrences of all of these plants should be monitored where alpacas will have access, and fenced appropriately to exclude alpacas if necessary. Note that little scientific literature is available on native and domestic plants that are toxic to alpaca. An examination of non-science sources on the Internet suggests many common plants of pastures, disturbed places, and farms that are toxic to alpaca. Thus this topic and potential prevention should be studied in greater depth if grazing is to be expanded.

3. *Palatable Plants.* At least twelve of the reported or observed plants are likely to be palatable to alpaca, and thus consumed in part. Palatability does not necessarily imply vulnerability to alpaca grazing, but there is little or no scientific literature about alpaca or other livestock herbivory impacts, or about alpaca farm operation impacts. Because these sites have not been grazed historically, introduction of grazing and a farm operation could cause unknown impacts.

4. *Pest Plants.* French broom is the only pest listed above. Alpaca trampling may be useful in control of this plant, but herbivory is not likely to be effective.

5. *Trampling Impacts.* Many of the plants listed above may be vulnerable to alpaca trampling, but there is little or no scientific literature about alpaca or other livestock trampling impacts, or about alpaca farm operation impacts. Because these sites have not been grazed historically, introduction of grazing and a farm operation could cause unknown impacts.

6. *Potential Benefits.* However, the effects of opening of the understory and overstory canopies and disturbing the ground surface due to grazing and the farm operations could provide a benefit to the affected plants by improving and expanding habitat quality (Haley 2008b).

7. *Monitoring and Adaptation of Plans.* Monitoring should be conducted to determine whether such impacts or benefits occur, particularly to the special-status plants, the Sand Hills indicator plants (Haley 2008b), and French broom. If such impacts or benefits can be determined, then alpaca grazing and farm operation plans should be adjusted to result in the desired effects.

VI. Special Resources Management

A. Protection of special-status plants

Any stand of either of the two special-status plants found at the property should be protected from potential damage due to construction, vehicle traffic, and alpaca grazing by the installation of exclosure fencing (Haley 2008a and 2008b; Casale 2008). The construction and maintenance of exclosure fencing will require management attention and labor for periodic repairs to assure that it functions properly.

B. Special-status insects

The survey and assessment of the property for endangered insects and their habitat found no occurrences and unsuitable habitat conditions (Arnold 2007). Dr. Arnold reported that farm development and grazing in the area south of Santa Cruz Street posed no significant risks to the endangered insects.[11]

[11] Personal communication, Richard Arnold, April 8, 2008

C. Effects on potential timber production

Because the property is zoned as "TP" (for timber resources; Assessor's Use Code--TPZ), an assessment by a Registered Professional Forester is required to determine whether the alpaca farm development in Mixed Evergreen Forest would have a significant effect on potential timber production, and to recommend other actions.

D. Fire hazards

Fire hazards in the Mixed Evergreen Forest zone of the property are very high due to the accumulations of fallen tree limbs and woody litter as well as abundant small standing dead trees and dead limbs on the tree trunks. The quantities and arrangements of these fire fuels represent a very high risk of both ground and canopy wildfires developing if an ignition occurs. Such accumulation of fire fuels and the presence of knobcone pines (*Pinus attenuata*) and Douglas-firs (*Pseudotsuga menziesii*) indicate this site has not burned in many decades, and has an ecological history that includes relatively frequent wildfires. Thus the fire hazards and risks of wildfire ignition and spread should be a high priority for assessment by a qualified professional.[12] A plan should be developed that assesses options and determines the best management practices for reduction of fire hazards and for protection of the planned residences, alpaca farm infrastructure, other facilities, and natural resources. The plan should include an assessment of the potential for opening of the forest canopy in Mixed Evergreen Forest near the alpaca barn and paddocks; and for development of shaded fuel breaks as suggested by Valerie Haley (Haley 2008b).

In any plan for tree removal on the property, consideration should be given to preserving (not removing) some "snag" trees for use by wildlife, particularly any woodpeckers, special-status birds, and bats.

E. Pest plants

The report by Valerie Haley recommends measures to manage non-native invasive plants associated with construction and operation of the alpaca farm (Haley 2008b). Alpaca grazing is not likely to be effective in such management.

F. Erosion control and drainage management

The report by Steve Singer recommends measures to manage stormwater and avoid erosion related to the alpaca barn, paddocks, and access road (Singer 2008).

[12] Acceptance of this report by Don Blaha, his associates, and others using this report assures explicitly that the author will not be held liable or responsible in any way for any damages associated with wildfire, fire management, fire management planning, or related professional activities.

VII. Monitoring

Monitoring of compliance with these recommendations and of the effects of construction and operation of the alpaca farm is described in the report by Valerie Haley (2008b).

VIII. Summary of Additional Investigations and Planning Needed

The following investigations and plans are needed and should be initiated by the Blahas as soon as feasible:

- Alpaca infrastructure design (refer to Section I.)
- Alpaca conservation plan and farm management plan (refer to Section I.)
- Assessment of potential impacts to timber production (refer to Section VI.C.)
- Wildfire protection assessment and plan (refer to Section VI.D.)

IX. Assumptions

- There are no cultural resource or special-status vertebrate wildlife conflicts related to the proposed development at this property.

- The assessments and recommendations reported here and in the related reports by Arnold (2007), Casale (2008), Haley (2008b), and Singer (2008) will be accepted and implemented by the Blahas and any future owners as described.

- The additional investigations and planning summarized in Section VIII will be conducted as soon as appropriate; any conflicts with this report that arise as a result of this additional work will be resolved in cooperation with the author.

- The Blahas will conduct any needed permit applications and follow the regulations and requirements determined by the Santa Cruz County Planning Department related to limits on livestock numbers and management practices.

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LEGEND

Alpaca Project Location	----	Proposed Restoration Area	CHOR	Ben Lomond Spineflower
Grazing Test Plot	PF/OW	Pine Forest/Oak Woodland	ERNU	Ben Lomond Buckwheat
Uncleared Portion of Restoration Area	NMC/PF	Northern Maritime Chaparral/Pine Forest	RWF	Redwood Forest
	←	Direction of Rain Runoff	MEF	Mixed Evergreen Forest

Native Vegetation Network

653 Quail Drive • Santa Cruz, California 95060
Telephone/Fax (831) 425-0687

BLAHA PROPERTY
Close up of Proposed Alpaca Barn and Paddocks

Figure 3
6/08
PV-120

EXHIBIT G
EXHIBIT

EXHIBIT G

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
820 Bay Avenue, Suite 128
Capitola, California 95010
(831) 475-1967; 475-3215 (Fax)

"Helping People Help the Land"

June 8, 2008

Don Blaha
225 Santa Cruz Street
Boulder Creek, CA 95006

SUBJECT: Alpaca Paddock Planning and Site Development

Dear Don:

As a follow-up to my April 23, 2008 on-site visit to the property you own on Santa Cruz Street in Boulder Creek, CA, I am happy to provide you with the following report. *Note: Dr. Larry Ford, Certified Rangeland Specialist and Rangeland Consultant, was also present (at your invitation) at the time of this site visit.*

NATURE OF REQUEST

The landowner made a request for USDA Natural Resources Conservation Service (NRCS) assistance in the development of an alpaca farm on his recently purchased property in Boulder Creek. The landowner is also interested in preventing soil erosion and enhancing the quality of natural resources that exist on the property.

BACKGROUND DATA

The landowner is interested in creating an alpaca farm, including paddocks, turnout areas, compost facility, watering facilities, small barn, and covered stalls. The landowner has requested information on the following topics:

Site planning	Natural resource mgt.	Livestock facility mgt.
Grazing capacity	Soil capability and use	Fencing
Drainage control	Fire hazard reduction	Watering facilities
Turnout location	Manure & fly mgt.	Invasive plant removal
Grazing mgt.	Forage requirements	Livestock Health
Cost share programs	Erosion prevention	Other related issues

The property is on 40 acres in the hills above Boulder Creek and in the San Lorenzo River Watershed. Nearly the entire property is vegetated and composed of redwood/Douglas fir and

mixed hardwood forest and chaparral with many native species of plants. Refer to Dr. Ford's vegetation species and forage characteristics paper attached for a list of plant species observed on the property. *Note: Much of the property has been designated as sensitive biotic habitat by the County of Santa Cruz, with at least two special status plant species identified, according to Dr. Larry Ford. A biotic report was also completed by Kathleen Lyons and amended by Val Haley for the property.*

In addition to the management issues mentioned in this report I completely concur with Dr. Larry Ford's Priority Management Concerns and Recommendations included in his paper listing existing herbaceous and woody forage plant species found on the Blaha property. Refer to Dr. Ford's draft paper dated 5/21/08 attached for details.

The following soils are mapped on the property: Nisene-Aptos complex (158) and Zayante coarse sand (182), according to the Santa Cruz County Soil Survey published by NRCS (formerly the Soil Conservation Service), 1980. 72.1 % of the property is mapped as Nisene-Aptos complex and 27.9% of the property is mapped as Zayante coarse sand. *Note: The landowner would like to confine Alpacas to an area approximately 4.5 acres in size on the Zayante soil type.* Refer to enclosed soil map and soil summary for details on these mapped soil types.

Note: Erosion hazard is moderate to high on these soils, especially on steeper slopes (>5%), if soil is unprotected following the removal or damage of any vegetation, and/or if drainage is concentrated and uncontrolled from planned impervious or compacted improvements. Information contained in the Soil Survey should not be used in place of an on-site soils investigation if specific soil information is needed in the design of roads, buildings or other structural improvements. Soil survey information is intended for general planning purposes and is not a substitute for a soil engineering report or a site-specific soil evaluation.

Factors that can contribute to soil erosion include:

1. Erosive soil types combined with slope.
2. Unstable geology.
3. Removal and/or changes to vegetation by existing and planned land use activities.
3. Intense rainfall or soil saturation conditions caused by prolonged rainfall events.
4. Excessive cuts into slopes, especially on soils with a subsurface clay layer.
5. Roadways, especially on steep grades, causing water to concentrate in wheel tracks and erode the soil.
6. Changes in drainage characteristics of the site, including an increase in compacted soil and/or impervious surfaces causing increased runoff.
7. Wildlife or livestock trails that intercept & channel runoff causing soil erosion
8. Stream bank erosion if property contains streams or other drainage courses.
9. A combination of any number of factors above.

Natural resource issues and some related impacts associated with soil loss include:

1. Loss of fertile top soil.

2. Sedimentation and degradation to down stream water quality.
3. Damage to aquatic and wildlife habitat.
4. Potential for invasive, non-native plant species to colonize disturbed soil areas.
5. Degraded landscape appearance.
6. Lower property values.
7. Safety hazards created for livestock, property users, visitors, etc.
8. Financial burden and high cost to restore eroded areas.

Factors that can contribute to mud, odor, and fly problems on livestock operations include:

1. Inadequate site drainage conditions.
2. Fine textured soils.
3. Infrequent (less than daily) manure clean-up.
4. Small paddocks where confined animals are more inclined to mix manure into soil with their feet/hoofs.
5. Stock piling manure without covering.
6. Incorporating other animal manure or organic wastes into manure stockpiles.
7. Urine soaked bedding.
8. High livestock density.

RECOMMENDATIONS

1. Install and maintain roof runoff control systems on all planned structures, including your new home and any new outbuildings planned, to prevent drainage issues and excessive runoff on erosion prone soils. Install drainage control measures such as roof gutters on all paddock shelters to prevent clean runoff from entering confined livestock keeping areas. *Note: Roof gutters and down drains can be over-sized to minimize maintenance especially where there is dense tree cover and a high potential for leaf litter and clogging.* Gutter guards can also help reduce maintenance, especially if over sizing gutters is not feasible. *Note: In some cases, no gutters may be the best runoff control solution. Some times it is better to allow runoff to be dispersed by vegetation and to infiltrate the soil rather than to collect and control it which often causes other issues.* See the "Runoff Control" fact sheet available at my office for further details. Consult with a licensed landscape or roof gutter contractor with erosion and drainage experience and/or certified in erosion and sediment control for design and installation assistance.

2. Refer to information previously sent on; Horse Manure; Horse Fly Facts; Horse Additional Resources; and Site Planning for Livestock Operations for details on planning considerations when developing a new livestock facility. Also refer to the wealth of information on the Livestock and Land website at: www.livestockandland.org maintained by Ecology Action of Santa Cruz and the Resource Conservation District of Santa Cruz County.

3. Develop a manure management plan for your alpaca facility. *Note: Do not stockpile or spread manure any where it can be transported by runoff water.* Make sure that

any manure stockpiled in the future is covered and is not in contact with any concentrated drainage source or outlet. On sandier soils it is extremely important to place manure on an impervious membrane or concrete pad to prevent leeching of nutrients into high water table or other groundwater. In addition, the site you select for manure stockpiling, spreading, staging, or composting should be well away from property lines and any watercourse. Refer to Livestock and Land website for details on manure management alternatives and solutions.

4. Manure clean-up should not be less than once a day, preferably twice a day during the wet season. It is equally important to remove other organic matter from paddocks and stalls as well, including soiled bedding, spent hay, fallen tree leaves, etc. There may be a need to re-grade or import additional soil to smooth out the level of the paddocks over time to return drainage to natural "sheet flow".

5. Build/install fencing to create paddocks and "sacrifice areas", turnout areas, etc. according to a conservation plan developed by NRCS and/or qualified consultant. Portable pipe corral fencing is always a good choice for smaller operations because it can easily be moved; livestock do not chew it; it's very durable and difficult to damage; and it can be sold for 50-90% of the original cost when you no longer need it. Used pipe corral is always in big demand. Make sure that any confined livestock paddocks meet the County set back requirements from neighboring property lines, County roads and property lines. Set back areas should be maintained in permanent vegetative cover and act as a buffer/filter strip.

6. "Cedar Rest" or similar product can help with odor problems in smaller enclosed containment areas and where alpacas tend to bed, especially in the dry season. It is best used under cover, roof covered paddocks, or box stalls and should not be used in open paddock areas during the rainy season. *Note: Any wood product such as shavings, chips, or "Cedar Rest" will contribute to mucky conditions during the winter if left in contact with wet soil or in direct rainfall or runoff. Wood products, spent hay, and any organic debris needs to be removed from alpaca keeping areas exposed to rainfall and runoff to help prevent mud and muck.* Washing and keeping alpacas as clean as possible should also help to reduce fly and odor issues. Refer to the information on fly control and manure management available at my office for further details.

7. Consider seeding any planned open pasture/turnout areas with a native grass mix with seed that has been collected at or in the vicinity of your property (to be determined by your botanist). Perennial grasses usually take some irrigation, especially on sandy soil types for good establishment. Although the grazing capacity of alpacas is equivalent to approximately 6-7 alpacas to one 1000 pound horse or cow, depending on the breed and size of the animals. This does not automatically translate to site specific stocking rates because there are several variables to consider before putting livestock on the landscape. For example, on highly erodible soil and in sensitive environmental communities such that exists on your property, only one or two alpacas may be able to graze per acre during the

EXHIBIT G

grazing season under close monitoring whereas on another property with improved pasture and productive soils that number might be 4 or 5 alpacas per acre during the same period. Refer to the Pasture Management handout available at my office for variables to consider before developing an area for use by livestock.

8. Chronic drainage and mud problems may develop in paddocks and sacrifice areas in the future, if alpacas are contained in uncovered paddocks or sacrifice areas over the winter months. If this occurs then drainage and soil conditions can be improved in paddocks/stalls by first bringing in base rock with 60% fines and 40% drain rock 5/8" or smaller or "decomposed granite", and then covering with 4-6" of sand or loamy sand as a surface. In more extreme drainage problem cases there may also be a need to add either a filter fabric layer between the base rock and soil or a subsurface drainage system. Another solution would be to contain alpacas only in covered paddocks/stalls during rainfall periods.

9. Consider containing alpacas in small management units so that less pressure is exerted on the natural landscape. Periodic grazing should only occur in designated areas and with close monitoring so that no damage is done to biotic resources. Some grazing of areas outside confined paddocks will help in fire hazard reduction and should only be done during the dry season. This will limit soil disturbances during the winter and help prevent erosion and potential off-site water quality issues. Containing alpacas to paddocks during the winter months will also help ease manure clean-up.

10. Livestock keeping on small acreages requires intensive management. When preparing for new paddocks some slight slope is better than creating pancake flat paddocks where rainfall will tend to puddle. Ideally, confined paddocks and other "sacrifice areas" should be placed on the highest areas in the landscape so that there is good natural drainage. The main concept is to keep surface runoff in sheet flow when ever possible. *Note: Minimize grading to the extent possible. Extensive grading can contribute to erosion hazard and/or future mud issues if not done properly and/or if work is not performed by someone qualified and knowledgeable about drainage control and soil erosion prevention. If it is not possible to keep runoff in sheet flow then break concentrated drainage up into as many parts as possible. Also note that proper location of paddocks to higher ground will also reduce the amount of drainage control and land smoothing needed.*

11. Refer to the pamphlet on *"Living with Fire in Santa Cruz County - A Guide for Homeowners"*(2004) published by the Resource Conservation District of Santa Cruz County for information on fire hazard reduction and fire proofing your home and other property improvements.

12. All sensitive special status species should be protected and not damaged or grazed by alpacas. Alpacas should either not have access to these areas or the existing plant populations should be fenced out. Fencing may also be necessary to prevent alpacas from accessing excessively steep slopes and any drainage courses that exist on the property.

EXHIBIT G

13. Monitor and maintain all planned runoff control and erosion prevention measures during future rainfall events to ensure proper function. Correct defects as needed.

14. Discourage non-native plants such as French broom from spreading on the property, especially in any planned livestock use areas. Refer to the list of existing native plants provided to you by Dr. Larry Ford and your botanist for desirable native plants to encourage. Also refer to the booklet, "Plague of Plants" available at my office for details on invasive plant species to discourage. French broom removal should be done in such a way, and at the appropriate time of the year (late winter very early spring), that won't cause the plant to spread. *Note: If alpacas trample the French broom as a management tool, as suggested by Dr. Ford, then trampling should not occur after the plant has set seed.* Refer to the information on French broom and removal techniques available at my office for details.

15. Any future bare or disturbed soil outside of planned enclosed paddocks should be re-vegetated or seeded with an appropriate native grass erosion control mix and covered with a two-inch layer of rice straw mulch prior to the rainy season (all planting materials to be collected at or in the vicinity of your property following the instructions of your botanist). Plant lightweight, deep-rooted, native shrubs, trees, and/or other indigenous native ground covers, on any bare soil areas and slopes. *Note: Seeding and mulching should be done in the fall before November 15, unless irrigation water is available. Grass may only be appropriate where there is adequate sunlight. If protection is required late in the season beyond the time period to establish grass then a thick layer of rice straw mulch applied to the soil by itself can help protect soil and prevent erosion.*

16. For information regarding funding opportunities, contact Jennifer Harrison with Ecology Action of Santa Cruz regarding the Livestock and Land Demonstration Ranch Program at: jharrison@ecoact.org or 831-426-5925 ext. 132.

17. Proceed slowly on ground that hasn't had a history of livestock use or impact. Monitor effects closely and only increase herd size as deemed appropriate from results of monitoring and by following conservation grazing and land use practices recommended by NRCS or other qualified experts. *Note: It may only be possible to have alpacas contained in confined paddocks which will determine the number of animals you will be able to manage and keep. Further research will be required to determine what the County of Santa Cruz County will allow in terms of livestock keeping on your property.*

18. Once there is a definitive direction from the County and/or other regulating agencies pertaining to alpaca use on your property then continue to work with NRCS and/or your planning consultant with the development of a conservation management plan for your property.

EXHIBIT G

A conservation plan developed by NRCS or others in the future will likely include many (if not all) of the following practices if a livestock operation is pursued:

i. Fencing
ii. Prescribed Grazing
iii. Critical Area Planting
iv. Tree and Shrub Establishment (with natives)
v. Pasture Planting (with natives)
vi. Composting Facility
vii. Restoration of Declining Habitats
viii. Roof Runoff Structure
ix. Heavy Use Area Protection
x. Watering Facility (troughs)
xi. Pipeline (stock water)
xii. Animal Trails and Walkways
xiii. Brush Management
xiv. Water Harvest Catchment (?)
xv. Upland Wildlife Habitat Management

For more information and copies of detailed descriptions and specifications regarding the NRCS practices listed above go to the NRCS website homepage at: www.ca.nrcs.usda.gov. Follow the links to: Field Office Technical Guide (FOTG) - Santa Cruz County - Section IV -Approved Conservation Practices - Practice Specifications. *Note: These specifications are for information only and to be used with complete NRCS approved designs.*

IMPORTANT NOTES

The NRCS mission statement is "Helping People Help the Land." NRCS is one of the oldest government agencies of its kind. It is an agency that was essentially initiated by landowners during the "Dust Bowl" era of the 1930s. NRCS helps private landowners and land users throughout the United States and Pacific Trust territories to voluntarily conserve soil, water, air, plant, animal, wildlife and related resources.

The NRCS provides conservation technical assistance, administers conservation programs and is a non-regulatory federal agency under the U.S. Department of Agriculture (USDA). All NRCS services are made available to land users, without service fees. In Santa Cruz County, NRCS works closely with, and is co-located with the Resource Conservation District (RCD) of Santa Cruz County. The RCD is a local special district organized under California state law and is supported by property tax revenue and other funding mechanisms.

The NRCS does not enforce laws or ordinances, issue permits, or respond to complaints in a regulatory manner. Individuals who receive advice and council from NRCS are responsible for compliance with all laws, ordinances and permit requirements. Permit coordination assistance is available on some projects through the NRCS/RCD office.

EXHIBIT G

The NRCS protects the confidentiality of its clients, customers and of the public according to agency policy and by the protections stipulated by the Freedom of Information Act.

The Natural Resources Conservation Service makes no representation on the existence or non-existence of any utilities. It is the property owner's or land user's responsibility to contact the Underground Service Alert Office (USA) at 1-800-642-2444 for information regarding location of underground utilities when conducting any activity that involves soil disturbances and excavations.

Information provided on practices that are structural in nature is advisory and should not be considered as complete construction specifications. The property owner/land user is responsible for any further technical assistance that might be necessary.

For more information regarding NRCS and RCD services and programs you can contact the Capitola NRCS/RCD Local Partnership Office at: 831-475-1967 (NRCS); 464-2950 (RCD); or visit us on line at: www.ca.nrcs.usda.gov The web site for the RCD of Santa Cruz County is: www.rcdsantacruz.org

If you have any questions regarding my field summary, visit, or any of the enclosures then please don't hesitate to contact me.

We are happy to serve you and look forward to working with you on a conservation plan and possibly a livestock and land demonstration in the future.

Sincerely,

USDA NATURAL RESOURCES
CONSERVATION SERVICE

Richard Casale
District Conservationist
Certified Professional in Erosion and Sediment Control #3

Enclosures

EXHIBIT G

Staub Forestry &
Environmental Consulting

STAUB

June 18, 2008

Mr. Don Blaha
225 Santa Cruz Street
Boulder Creek, CA 95006

Dear Mr. Blaha,

Per your request and in consultation with Dr. Larry Ford, I visited your property (Santa Cruz APN #090-131-15) on June 14, 2008 to evaluate potential effects of proposed development of alpaca farm and residential facilities on your parcel's Timber Production (TP) zoning and use. I reviewed a preliminary site plan dated June 7, 2008 (Sheet A-1) that showed barn, paddock and grazing test plot locations as well as possible house and caretaker unit locations and sensitive habitat areas. The property is located at 225 Santa Cruz Street, which is roughly three-quarters of a mile east of the town of Boulder Creek. My analysis included review of four related site reports: "Botanical Evaluation of Proposed Alpaca Project, Blaha Property", June, 2008, V. Haley; "Proposed Alpaca Farm Development: Preliminary Description and Management Recommendations, Blaha Property", June 9, 2008, Lawrence D. Ford, Ph.D.; "Stormwater Management Plan for Blaha Property," June 2008, Steven Singer; and Natural Resources Conservation Service letter dated June 8, 2008, Subject: Alpaca Paddock Planning and Site Development. Aerial photography and USGS topographic and assessor's parcel maps were also reviewed.

As these reports document, the ridgetop section of the property contains an unusual mix of vegetation types. Sensitive habitats northern maritime chaparral/pine forest and pine forest/coast live oak woodland occupy the gentle terrain in the western and southwestern portions of the parcel. A small area of mixed evergreen forest, some 2 acres of which are dominated by redwood and Douglas-fir timber, occurs in the southwest corner of the parcel and includes a small watercourse that drains into the San Lorenzo River about one-half mile to the south. The steep slopes of the eastern portion of the parcel support a mix of redwood, Douglas-fir and evergreen hardwoods (principally tanoak) and drain into Fritch Creek, a tributary of Love Creek and the San Lorenzo River. Total area of commercial timberland is estimated to be approximately 23 acres. Elevations range from a high of some 1160 feet near the northwest corner to a low at Fritch Creek of some 700 feet at the northeast corner. The eastern slopes were selectively harvested in 1998 under Timber Harvesting Plan 1-96-247 SCR. A work completion report for the project was filed in June 1999.

As noted in more detail in the Botanical and Stormwater reports, barn and paddock facilities are proposed on the more level portions of the mixed evergreen forest type in order to minimize

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Stephen R. Staub, Registered Professional Forester License No. 1911
Cassady Bill Vaughan, Registered Pı - 88 -nal Forester License No. 2685
Cheyenne Borello, Registered Professional Forester License No. 2784

EXHIBIT H

potential impacts to sensitive habitats. The barn/paddock location coincides with the transition of soil and site from commercial timberland to non-commercial pine forest/coast live oak woodland. Proposed tree removal for the barn consists primarily of non-commercial coast live oak and knobcone pine but also includes several smaller Douglas-firs by its northwest corner. Two large redwoods growing just west of the west wall will be retained. The majority of the approximately 5330 square feet to be occupied by the barn and paddocks does not have significant potential for growing commercial timber. Placement of the barn and paddocks as proposed will remove less than one-tenth of an acre of marginal timberland from production and will not hamper management of the adjoining timber as long as 12' wide access is retained between the proposed barn and grazing test plot and if paddocks use temporary fencing that can be removed to provide suitable access once every 10 to 20 years for selective harvesting of adjacent conifers. Access for selective harvesting can and should also be retained along and off the shoulders of Santa Cruz Street where it adjoins timber along the southwestern parcel line.

Possible future residential sites are shown on non-timberland sites in the south central portion of the parcel and will not hamper timber production and management as long as suitable short log truck and yarder access (12' wide) is maintained over the route that currently serves the two 5,000 gallon water tanks and skidding access (10' wide) is maintained along the crest of the ridgeline that supports commercial conifer timber over its entire length. Terrain suitable for log loading is also available. Maintenance of such access is important in the event that future harvesting is not done in conjunction with the adjacent parcel to the east as was done on the prior harvest. Site review confirms that such access can be maintained on favorable terrain along the ridgetop both east of any proposed development and within commercial timberland.

Conclusion: Our site review confirms that proposed alpaca barn and paddock facilities and possible future residential use as shown on the Preliminary Site Plan, Sheet A-1 are sited in locations that will not appreciably affect timber productivity and management on the TP zoned parcel as long as suitable access for selective harvesting operations is maintained as described. I recommend that final site plans and site staking be reviewed by a Registered Professional Forester to advise and confirm that suitable access through and around developed facilities is being maintained. Maintenance of the non-commercial sensitive habitats on the parcel is compatible with and might be partially supported by timber management operations

Please contact our office if you have any questions about forest management options for the property or to evaluate compatibility of other uses with the property's TP zoning.

Sincerely,

Stephen R. Staub
Registered Professional Forester, License #1911

COUNTY OF SANTA CRUZ
PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
TOM BURNS, PLANNING DIRECTOR

Return recorded form to:
Planning Department of the County of Santa Cruz
701 Ocean Street, Fourth Floor
Santa Cruz, CA 95060

DECLARATION OF RESTRICTION, page 1 of 6

This declaration is made in the County of Santa Cruz, State of California,

effective October 3, 2008 by Janette Blaha Huls, Elizabeth Young, Donald Blaha
owner(s) of real property described in Exhibit "A" attached hereto and incorporated herein by reference, also known as Assessor's Parcel Number(s) 090-131-15 (hereinafter "subject property"), who hereby declare(s) that all of the property described below shall be held, transferred, sold, and conveyed subject to the following restrictions and conditions, which are for the purpose of compliance with the County Code of the County of Santa Cruz, and which shall run with the title to the property and be binding on all parties having any right, title or interest in the property or any part thereof, their heirs, assigns, and any other transferees and successors and shall apply to each owner thereafter.

RECITALS

WHEREAS, Declarants have proposed and made application for a residential development (hereinafter "project") upon a portion of the subject property, (hereafter referred to as the "project") described in Exhibit B attached hereto and incorporated herein by reference. Said project is described, in general terms, as follows:

Placement of a temporary agricultural caretaker's mobile home or travel trailer on a vacant parcel.

WHEREAS, the Sensitive Habitat Protection Ordinance of the County of Santa Cruz (Chapter 1632 of the County Code, hereinafter "the Ordinance") requires that any development approved by the County of Santa Cruz (hereinafter the "County") shall mitigate significant environmental impacts;

WHEREAS, the County has found that the undeveloped portion of the subject property, as shown in Exhibit B attached hereto and incorporated herein by reference, is a sensitive habitat (as defined in (Chapter 16.32 of the County Code) in that: Portions of the subject parcel are sensitive habitat as described in Section 16.32 of the County Code in that: Zayante soils, characteristic of "sand parkland" exist in and around the proposed temporary unit. Additionally, state and federally-listed endangered plant species (Ben Lomond spineflower) has been identified in close proximity to the proposed caretaker's unit. Both the sand parkland ("Sandhills") and protected plant species constitute sensitive habitat under Section 16.32 of the County Code.

EXHIBIT I

WHEREAS, Grantors have made application for a permit to construct a temporary caretaker's mobile home or travel trailer on project site (hereinafter "said permit"), and such development, if inappropriately sited, designed or utilized could have a significant adverse impact on the sensitive habitat described above;

WHEREAS, The County has found that to issue a building permit consistent with said Sensitive Habitat Protection Ordinance the County must be assured that the development will be sited, designed and utilized so as to not significantly adversely impact the sensitive habitat;

WHEREAS, the County has found that the restrictions enumerated hereinafter will confine the development to a limited area and prevent expansion of the development, and will thus adequately mitigate the adverse impacts set forth above; and

WHEREAS, it is intended that the restrictions contained herein shall be and shall continue to be, to the end of the term of said restrictions, enforceable restrictions within the meaning of Article XIII, Section 8 of the California Constitution and that said revisions shall thereby qualify as an enforceable restriction under the provisions of the California revenue and Taxation Code Section 402.1.

RESTRICTIONS

NOW THEREFORE, in consideration of the mutual benefits and covenants hereby acknowledged by the parties and the substantial public benefits for the protection of the sensitive habitat, Declarant(s) hereby declare(s) that the subject property shall be held, transferred, sold and conveyed subject to the following restrictions and conditions.

1. USE OF PARCEL. No development as defined in Chapter 16.32 of the County Code (including, without limitation, removal of trees and other vegetation, grading, paving, installation of structures such as signs, buildings, or other structures of similar impact) shall occur on the undisturbed portions of the subject property as delineated on Exhibit B of this Declaration, with the exception of the following, subject to Planning Director's review approval:

   a. the removal of hazardous substances or conditions or non-native or diseased plants or trees, provided that such removals have been reviewed and approved by the Planning Director;

   b. plantings for erosion control purposes only, provided that such plantings have been reviewed and approved by the Planning Director and determined as not involving the unnecessary disturbance of indigenous ground cover or native wildlife;

   c. the installation of fencing of the type specified following. Only those types of fencing (such as wire or split rail) which are open enough to allow free passage of native wildlife shall be allowed on subject property. Non-structural signs may be posted to prevent trespass.

   d. the installation and maintenance of a septic tank and leach field to serve the dwelling.

2. TERM. This Declaration of Restrictions shall be in effect for a period beginning on the effective date stated above and continuing for the life of the development approved by said permit, and so long as any development rights whatsoever remain or are claimed under said permit.

EXHIBIT I

3. RECORDATION OF DOCUMENTS. This Declaration of Restrictions shall be duly recorded on the Office of the Recorder for the County of Santa Cruz. In the event that under the terms and conditions of this document, or any subsequent mutual written agreement, these restrictions are terminated with respect to all or any part of the subject property, the County shall, upon written request, execute and record with the Recorder of the County of Santa Cruz any documents necessary to evidence such termination.

4. SUCCESSORS IN INTEREST. This Declaration of Restrictions shall be appurtenant to the land described herein, for the term described herein, and all obligations hereby imposed shall be deemed to be covenants and restrictions running with the land, and shall bind any person having at any time any interest or estate in the subject property and as such shall be binding upon and inure to the benefit of all successors, transferees and assigns of the Declarants.

5. CONSTRUCTION OF VALIDITY/SEVERABILITY. If any provisions of these restrictions shall be held to be invalid, or for any reason become unenforceable no other provision shall be thereby affected or impaired, but rather shall be deemed severable.

6. ENFORCEMENT OF DECLARATION. Any conveyance, contract, or authorization (whether written or oral) by the Declarants or their successors in interest which would permit use of the subject property contrary to the term of this Declaration of Restrictions shall be deemed a breach of this Declaration. County or its successor may bring any action by administrative or judicial proceeding when County deems necessary of convenient to enforce this Declaration of Restrictions including, but not limited to, an action to enforce the Declaration. Grantors understand and agree that the enforcement proceedings provided in this paragraph are not exclusive and that County may pursue any appropriate legal and equitable remedies.

EXHIBIT I

DECLARATION OF RESTRICTIONS

IN WITNESS WHEREOF, Declarants have executed this Declaration of Restrictions on the _____day of _____, 20___.

Dated: _____

_____
Declarant

_____
Declarant

ACKNOWLEDGEMANT OF GRANTOR(S)

STATE OF CALIFORNIA

COUNTY OF _____

On _____, before me, _____
Date Name, Title of Officer

Personally appeared _____
Name(s) of signer(s)

___Personally known to me - OR - ___ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s),or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official.

Signature of Notary

EXHIBIT I

EXHIBIT "A"

All that real property situated in the County of Santa Cruz, State of California,

conveyed from Kevin Mallory to Janette Blaha Huls etal

by deed recorded in Document number 2007-0061419, Santa Cruz County

Official Records on 12-05-07 .

Assessor's Parcel No. 090-131-15

EXHIBIT I

COUNTY OF SANTA CRUZ
DISCRETIONARY APPLICATION COMMENTS

Project Planner: Robin Bolster
Application No.: 08-0089
APN: 090-131-15

Date: September 4, 2008
Time: 08:44:17
Page: 1

Dpw Drainage Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON APRIL 15, 2008 BY GERARDO VARGAS ========= The stormwater management plan is insufficiently developed, and complete review cannot be made as a result. The applicant remains subject to additional review comments.

1. Indicate on the plans the manner in which building downspouts will be discharged. Proposing downspouts as discharged directly to the storm drain system is generally inconsistent with efforts to hold runoff topre-development rates.

Note: - Projects are required to maintain predevelopment rates where feasible. Mitigating measures should be used on-site to limit increases in post-development runoff leaving the site. Best Management Practices should be employed within the development to meet this goal as much as possible. Such measures include pervious or semi-pervious pavements, runoff surface spreading, discharging roof and driveway runoff into landscaping, etc.

2. Show the existing site drainage pattern and any changes as a result of this project.

3. If proposed include a driveway plan and profile showing existing and proposed ground elevations.

4. Differentiate between existing and proposed impervious surfaces.

5. Show tabulation of existing impervious areas. Show tabulation of impervious area that will result from proposed development.

Please call the Dept. of Public Works, Stormwater Management Section, from 8:00 am to 12:00 noon if you have questions.
========= UPDATED ON JULY 16, 2008 BY GERARDO VARGAS ========= 1. Application 08-0089 is complete with regards to drainage for the discretionary stage. Please see miscellaneous comments to be addressed at the building application stage.

Dpw Drainage Miscellaneous Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON APRIL 15, 2008 BY GERARDO VARGAS ========= A drainage impact fee will be assessed on the net increase in impervious area. The fees are currently $1.00 per square foot, and are assessed upon permit issuance. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.
========= UPDATED ON JULY 16, 2008 BY GERARDO VARGAS ========= 1. Sheet 3 of 11 from the Stormwater management plan has several recommendations regarding runoff from the new impervious surfaces. The recommendations for the storage shed appears to be acceptable. The use of downspouts to splash blocks would be a beneficial measure to limit impacts. Please annotate on the plan.

EXHIBIT J

2. The recommendation for the alpaca barn and paddock roofs are acceptable; however, If the locations of discharge outfall are within a slope exceeding 25% submit a geotech letter approving the location to be stable.

A drainage impact fee will be assessed on the net increase in impervious area. The fees are currently $1.00 per square foot, and are assessed upon permit issuance. Reduced fees are assessed for semi-pervious surfacing to offset costs and encourage more extensive use of these materials.

Please call the Dept. of Public Works, Stormwater Management Section, from 8:00 am to 12:00 noon if you have questions.

Dpw Road Engineering Completeness Comments

========= REVIEW ON APRIL 7, 2008 BY ANWARBEG MIRZA =========
Project will be reviewed at building permit level.

Dpw Road Engineering Miscellaneous Comments

========= REVIEW ON APRIL 7, 2008 BY ANWARBEG MIRZA =========
NO COMMENT

Environmental Health Completeness Comments

========= REVIEW ON APRIL 11, 2008 BY JIM G SAFRANEK ========= Applicant will need approved septic application and water supply permit. Project description is for ag caretakers mobile, but applicant's plan states '3 bedroom sfr'(?) Development plan shows no septic system serving the mobile. When the septicapplication is approved, that site location must be illustrated to scale.
========= UPDATED ON JULY 15, 2008 BY JIM G SAFRANEK ========= Project is now approved with the condition that the applicant obtain an approved septic application and EH Building Clearance prior to submitting building plans.

Environmental Health Miscellaneous Comments

========= REVIEW ON APRIL 11, 2008 BY JIM G SAFRANEK =========
NO COMMENT

Cal Dept of Forestry/County Fire Completeness Comm

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON APRIL 1, 2008 BY COLLEEN L BAXTER =========
DEPARTMENT NAME:CALFIRE
The driveway shall be in place to the following standards prior to any framing construction, or construction will be stopped:
- The driveway surface shall be "all weather", a minimum 6" of compacted aggregate base rock, Class 2 or equivalent certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be a minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but

EXHIBIT J

in no case exceeding 20%. - The maximum grade of the driveway shall not exceed 20%, with grades of 15% not permitted for distances of more than 200 feet at a time. - The driveway shall have an overhead clearance of 14 feet vertical distance for its entire width. - A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. - Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. - All private access roads, driveways, turn-arounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times. - The driveway shall be thereafter maintained to these standards at all times.
All Fire Department building requirements and fees will be addressed in the Building Permit phase.
Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction.
72 hour minimum notice is required prior to any inspection and/or test.
Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with the applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewing agency.
A turnaround meeting the requirements of CALFIRE may be required. Show on plans a driveway profile including the grade. Driveways 150' in length or more require either a Hammerhead or Circular turnaround. ========= UPDATED ON APRIL 3, 2008 BY COLLEEN L BAXTER =========
========= UPDATED ON JULY 10, 2008 BY COLLEEN L BAXTER =========
DEPARTMENT NAME:
Add the appropriate NOTES and DETAILS showing this information on your plans and RESUBMIT, with an annotated copy of this letter:
All bridges, culverts and crossings shall be certified by a registered engineer. Minimum capacity of 25 tons. Cal-Trans H-20 loading standard.
The access road shall be in place to the following standards prior to any framing construction, or construction will be stopped:
- The access road surface shall be "all weather", a minimum 6" of compacted aggregate base rock, Class 2 or equivalent, certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but in no case exceeding 20%. The maximum grade of the access road shall not exceed 20%, with grades greater than 15% not permitted for distances of more than 200 feet at a time. The access road shall have a vertical clearance of 14 feet for its entire width and length, including turnouts. A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. All private access roads, driveways, turn-around and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times.
SHOW on the plans, DETAILS of compliance with the driveway requirements. The

driveway shall be 12 feet minimum width and maximum twenty percent slope.
The driveway shall be in place to the following standards prior to any framing construction, or construction will be stopped:
- The driveway surface shall be "all weather", a minimum 6" of compacted aggregate base rock, Class 2 or equivalent certified by a licensed engineer to 95% compaction and shall be maintained. - ALL WEATHER SURFACE: shall be a minimum of 6" of compacted Class II base rock for grades up to and including 5%, oil and screened for grades up to and including 15% and asphaltic concrete for grades exceeding 15%, but in no case exceeding 20%. - The maximum grade of the driveway shall not exceed 20%, with grades of 15% not permitted for distances of more than 200 feet at a time. - The driveway shall have an overhead clearance of 14 feet vertical distance for its entire width. - A turn-around area which meets the requirements of the fire department shall be provided for access roads and driveways in excess of 150 feet in length. - Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures. - All private access roads, driveways, turn-arounds and bridges are the responsibility of the owner(s) of record and shall be maintained to ensure the fire department safe and expedient passage at all times. - The driveway shall be thereafter maintained to these standards at all times.
All Fire Department building requirements and fees will be addressed in the Building Permit phase.
Plan check is based upon plans submitted to this office. Any changes or alterations shall be re-submitted for review prior to construction.
72 hour minimum notice is required prior to any inspection and/or test.
Note: As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with the applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source, and, to hold harmless and without prejudice, the reviewing agency.
You must show on the plans a driveway profile including the grade, width and surface. All requirements are listed above. If your driveway is more than 150 feet in length you are required to have either a "hammerhead" or circular turnaround. All dimensions must be show on the plans. Without this information, building plans will not be approved.

Cal Dept of Forestry/County Fire Miscellaneous Com

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON APRIL 1, 2008 BY COLLEEN L BAXTER =========

EXHIBIT J