



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

February 8, 2008

Planning Commission
County of Santa Cruz
701 Ocean Street
Santa Cruz, CA 95060

Agenda Date: March 12, 2008

APN: 087-053-21

Application: 07-0106

Item #: 7

Time: After 9 AM

Subject: A public hearing to consider a proposal to rezone a single lot of record from the Special Use (SU) zone district to the Timber Production (TP) zone district.

Members of the Commission:

On August 28, 2007, the County Planning Department accepted this application for a rezoning to Timber Production (TP). This is a proposal to rezone a 19 acre parcel from the Special Use (SU) zone district to the Timber Production (TP) designation. The uses on the property consist of vacant rural acreage.

Background

This project qualifies for a rezoning under California Government Code Section 51113. This section allows a property owner to petition the County to rezone land to the TP zone. The requirements for this type of rezoning are listed in Government Code section 51113(c)1. The County may not place any additional requirements on this petition to rezone the property to TP. County Code Section 13.10.375(c) – “Zoning to the TP District” implements Government Code section 51113 and specifies the six criteria which must be met in order to rezone to TP.

1 c) On or before March 1, 1977, the board or council by ordinance shall adopt a list of criteria required to be met by parcels being considered for zoning as timberland production under this section.

The criteria shall not impose any requirements in addition to those listed in this subdivision and in subdivision (d). The following shall be included in the criteria:

(1) A map shall be prepared showing the legal description or the assessor's parcel number of the property desired to be zoned.

(2) A plan for forest management shall be prepared or approved as to content, for the property by a registered professional forester.

The plan shall provide for the eventual harvest of timber within a reasonable period of time, as determined by the preparer of the plan.

(3) (A) The parcel shall currently meet the timber stocking standards as set forth in Section 4561 of the Public Resources Code and the forest practice rules adopted by the State Board of Forestry and Fire Protection for the district in which the parcel is located, or the owner shall sign an agreement with the board or council to meet those stocking standards and forest practice rules by the fifth anniversary of the signing of the agreement. If the parcel is subsequently zoned as timberland production under subdivision (a), failure to meet the stocking standards and forest practice rules within this time period provides the board or council with a ground for rezoning of the parcel pursuant to Section 51121.

(B) Upon the fifth anniversary of the signing of an agreement, the board shall determine whether the parcel meets the timber stocking standards in effect on the date that the agreement was signed.

Notwithstanding the provisions of Article 4 (commencing with Section

51130), if the parcel fails to meet the timber stocking standards, the board or council shall immediately rezone the parcel and specify a new zone for the parcel, which is in conformance with the county general plan and whose primary use is other than timberland.

(4) The parcel shall be timberland, as defined in subdivision (f) of Section 51104.

(5) The parcel shall be in compliance with the compatible use ordinance adopted by the board or council pursuant to Section 51111.

(d) The criteria required by subdivision (c) may also include any or all of the following:

(1) The land area concerned shall be in the ownership of one person, as defined in Section 38106 of the Revenue and Taxation Code, and shall be comprised of single or contiguous parcels of a certain number of acres, not to exceed 80 acres.

(2) The land shall be a certain site quality class or higher under

Section 434 of the Revenue and Taxation Code, except that the parcel shall not be required to be of the two highest site quality classes.

In accordance with County Code Section 13.10.375(c), the project meets the following six criteria for rezoning to Timber Production:

1. A map has been submitted with the legal description or assessor's parcel number of the property to be rezoned.
2. A Timber Management Plan, undated, prepared by a registered professional forester has been submitted for the property (Exhibit E).
3. The parcel currently meets the timber stocking standards as set forth in Section 4561 of the Public Resources Code and the Forest Practice Rules for the district in which the parcel is located (see Exhibit E).
4. The parcel is timberland, as the entire parcel is capable of producing a minimum of 15 cubic feet of timber per acre annually and is almost entirely located within a mapped Timber Resource area.
5. The uses on the parcel are in compliance with the Timber Production Zone uses set forth in Section 13.10.372.
6. The land area to be rezoned is in the ownership of one person, as defined in Section 38106 of the Revenue and Taxation Code, and is comprised of at least five acres in area.

This project qualifies for a statutory exemption (Exhibit D) in accordance with the California Environmental Quality Act and the County Environmental Review Guidelines (Article 17, Section 1703).

Conclusion

All of the criteria have been met for rezoning this parcel to the Timber Production zoning designation. All required findings can be made to approve this application and the rezoning is consistent with the General Plan policies and land use designations.

Recommendation

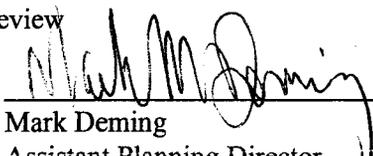
Staff recommends that your Commission adopt the attached Resolution (Exhibit A), sending a recommendation to the Board of Supervisors for approval of Application No. 07-0106 based on the attached findings (Exhibit B).

EXHIBITS

- A. Planning Commission Resolution, with Ordinance/ Findings
- B. APN Map
- C. Location, Current Zoning and General Plan Designation Maps
- D. Notice of Exemption from CEQA
- E. Timber Management Plan by Hildreth Forestry Consulting LLC, dated May 8, 2007 and amended by letter from James Hildreth dated August 15, 2007.

Maria Porcila Perez
Project Planner
Development Review

Reviewed By:


Mark Deming
Assistant Planning Director

BEFORE THE PLANNING COMMISSION
OF THE COUNTY OF SANTA CRUZ, STATE OF CALIFORNIA

RESOLUTION NO. _____

On the motion of Commissioner
duly seconded by Commissioner
the following Resolution is adopted:

PLANNING COMMISSION RESOLUTION
SENDING RECOMMENDATION TO THE BOARD OF SUPERVISORS
ON PROPOSED AMENDMENT TO THE ZONING ORDINANCE

WHEREAS, the Planning Commission has held a public hearing on Application No. 07-0106, involving property located on the south side of Chase Mill Road (121 Chase Mill Road) about 500 feet south from intersection with Waterman Gap Loop, and the Planning Commission has considered the proposed rezoning, all testimony and evidence received at the public hearing, and the attached staff report.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission recommends that the Board of Supervisors adopt the attached ordinance amending the Zoning Ordinance by changing property from the Special Use (SU) zone district to the Timber Production zone district.

BE IT FURTHER RESOLVED, that the Planning Commission makes findings on the proposed rezoning as contained in the Report to the Planning Commission.

PASSED AND ADOPTED by the Planning Commission of the County of Santa Cruz, State of California, this _____ day of _____, 2007, by the following vote:

AYES: COMMISSIONERS
NOES: COMMISSIONERS
ABSENT: COMMISSIONERS
ABSTAIN: COMMISSIONERS

Chairperson

ATTEST: _____
MARK DEMING, Secretary

APPROVED AS TO FORM:



COUNTY COUNSEL

ORDINANCE NO. _____

**ORDINANCE AMENDING CHAPTER 13
OF THE SANTA CRUZ COUNTY CODE
CHANGING FROM ONE ZONE DISTRICT TO ANOTHER**

The Board of Supervisors of the County of Santa Cruz ordains as follows:

SECTION I

The Board of Supervisors finds that the public convenience, necessity and general welfare require the amendment of the County Zoning Regulations to implement the policies of the County General Plan and Local Coastal Program Land Use Plan regarding the timber resource property located on the south side of Chase Mill Road (121 Chase Mill Road) about 500 feet south from intersection with Waterman Gap Loop; finds that the zoning to be established herein is consistent with all elements of the Santa Cruz County General Plan and the Santa Cruz County Code, as modified by the *Big Creek* decision; and finds and certifies that the project is subject to a statutory exemption under the California Environmental Quality Act.

SECTION II

The Board of Supervisors hereby adopts the Zoning Plan Amendment as described in Section III, and adopts the findings in support thereof without modification as set forth below:

1. The proposed zone district will allow a density of development and types of uses which are consistent with the objectives and land use designations of the adopted General Plan; and
2. The proposed zone district is appropriate for the level of utilities and community services available to the land; and
3. The character of development in the area where the land is located has changed or is changing to such a degree that the public interest will be better served by a different zone district; and
4. The property meets the requirements of Government Code section 51113 or 51113.5 and County Code Section 13.10.375(c).

EXHIBIT A

SECTION III

Chapter 13.10 - Zoning Regulations of the Santa Cruz County Code is hereby amended by amending Section 13.10.210 - Zoning Plan to change the following properties from the existing zone district to the new zone district as follows:

<u>Assessor's Parcel Number</u>	<u>Existing Zone District</u>	<u>New Zone District</u>
087-053-21	Special Use (SU)	TP

SECTION IV

This ordinance shall take effect on the 31st day after the date of final passage.

PASSED AND ADOPTED THIS _____ day of _____ 2007, by the Board of Supervisors of the County of Santa Cruz by the following vote:

AYES: SUPERVISORS
 NOES: SUPERVISORS
 ABSENT: SUPERVISORS
 ABSTAIN: SUPERVISORS

 Chairman of the Board of Supervisors

ATTEST: _____
 Clerk of the Board

APPROVED AS TO FORM:



 Assistant County Counsel

Exhibit: Rezoning Map

DISTRIBUTION: County Counsel
 Planning
 Assessor
 County

GIS

EXHIBIT A

FOR TAX PURPOSES ONLY

THE ASSessor MAKES NO GUARANTEE AS TO MAP ACCURACY NOR ASSUMES ANY LIABILITY FOR OTHER USES. NOT TO BE REPRODUCED. ALL RIGHTS RESERVED.

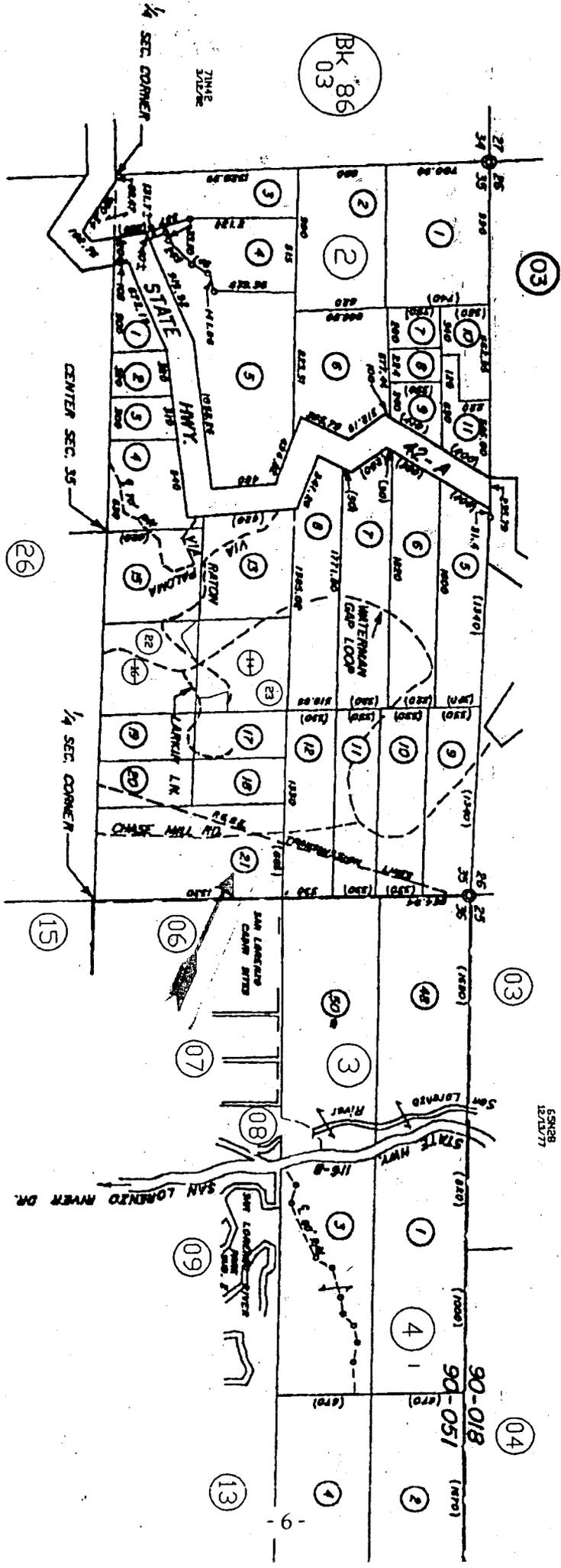
© COPYRIGHT SANTA CRUZ COUNTY ASSESSOR 1994

FOR REFERENCE ONLY / THIS IS NOT A SURVEY
 THIS PLAT IS PROVIDED SOLELY FOR YOUR AID IN LOCATING THE LAND IN GENERAL RESPECT TO STREETS AND OTHER PARCELS. NO LIABILITY IS ASSUMED FOR ANY LOSS OCCURRING BY REASON OF RELIANCE THEREON

PDR, SECS. 35 & 36
 T.8S,R.3W,M.D.B.&M.

Tax Area Code
 90-018 90-051

EXHIBIT



52-R.S.-8
 11-25-69

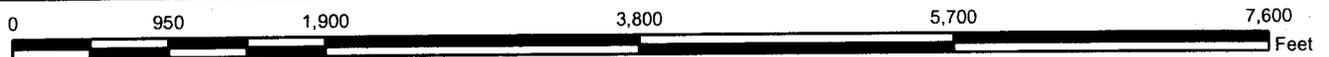
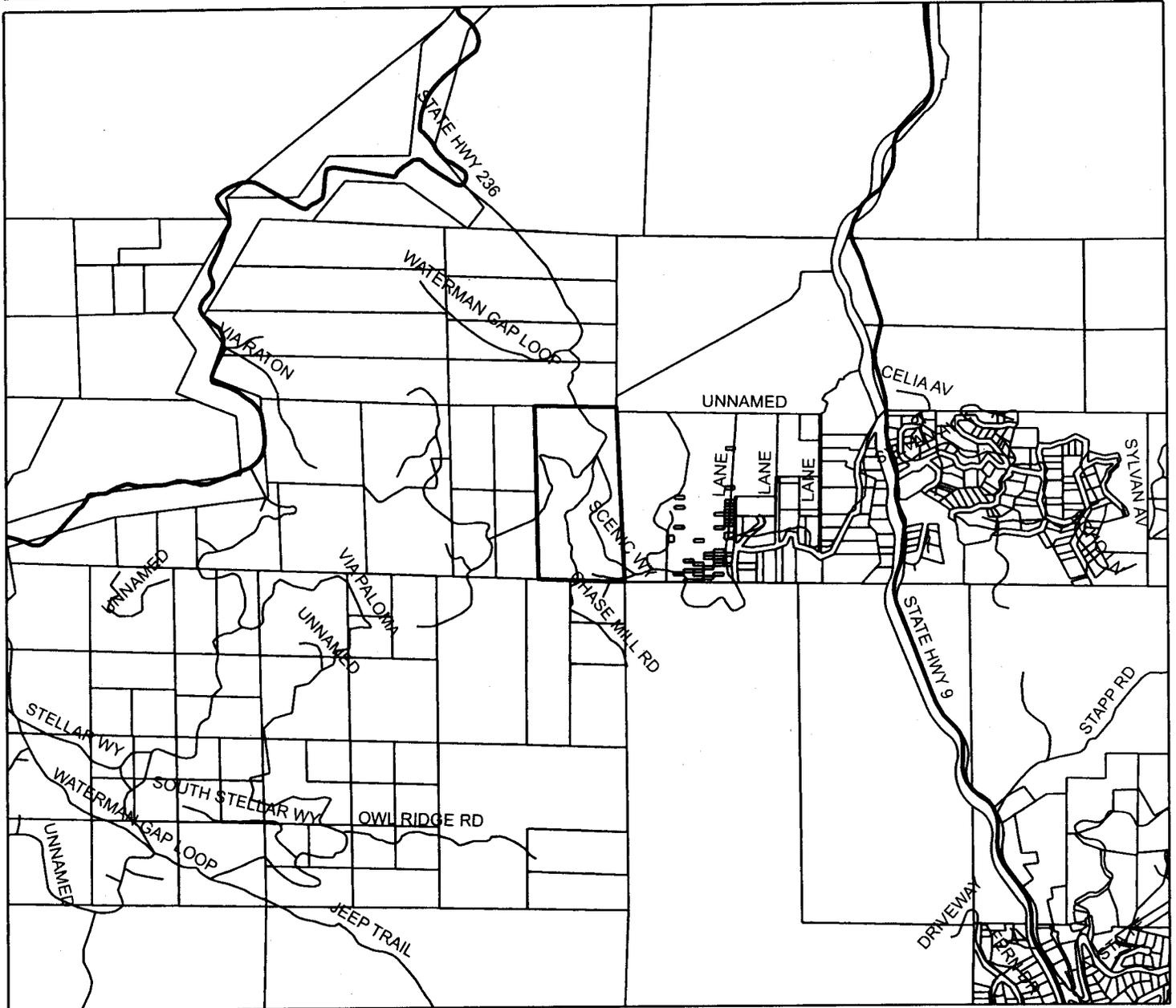
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Note - Assessor's Parcel Block & Lot Numbers Shown in Circles.

Assessor's M
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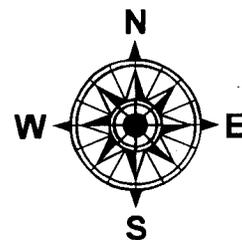


Location Map



LEGEND

-  APN: 087-053-21
-  Streets
-  Assessors Parcels
-  State Highways

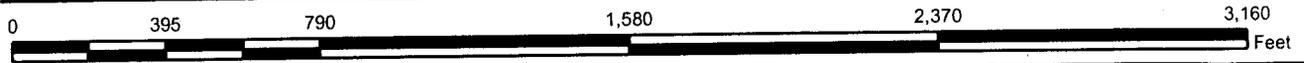
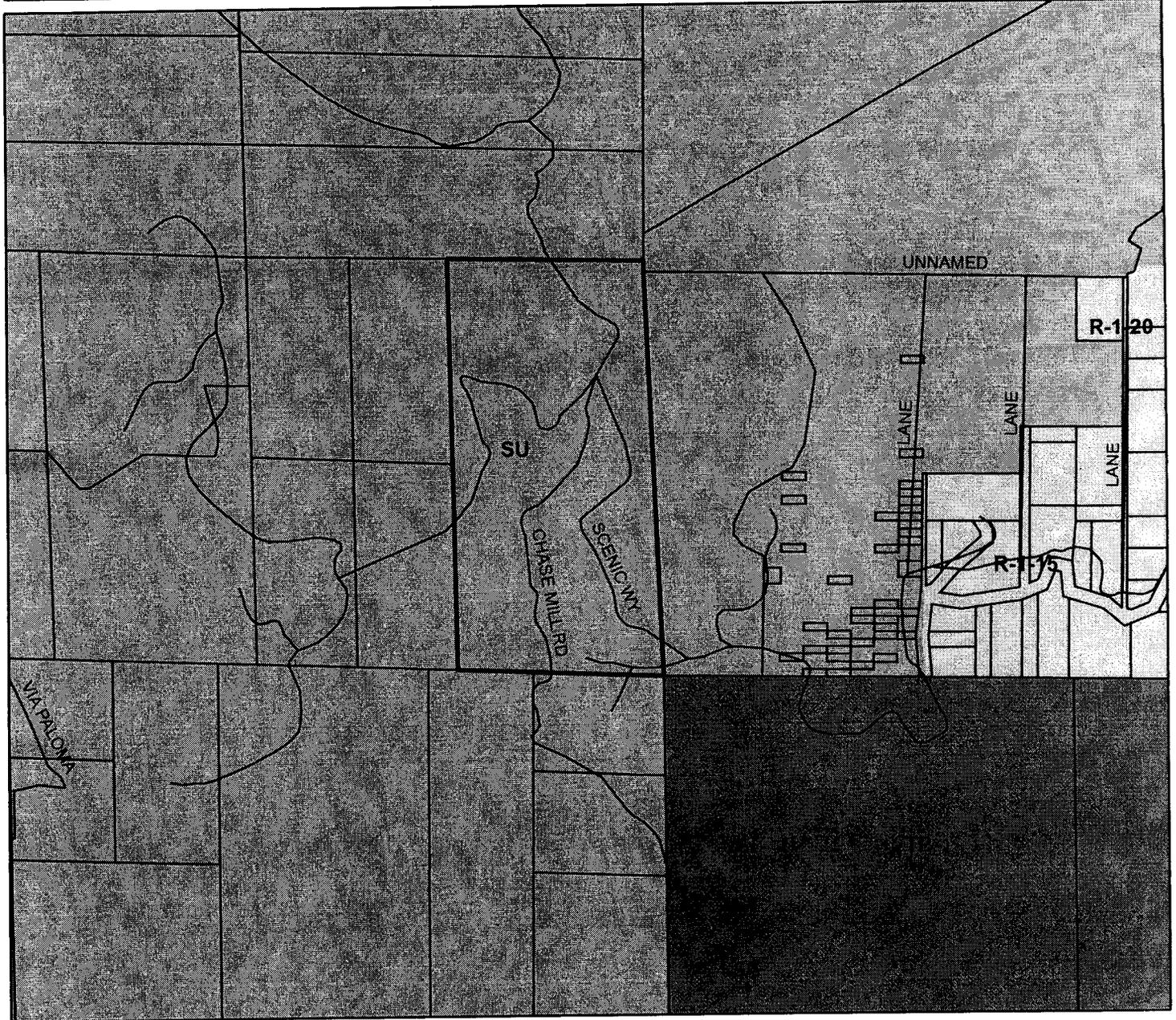


Map created by
 County of Santa Cruz
 Planning Department
 August 2007

EXHIBIT C

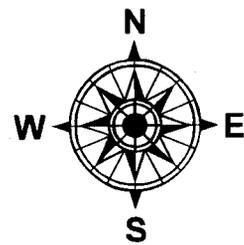


Zoning Map



LEGEND

-  APN: 087-053-21
-  Streets
-  Assessors Parcels
-  State Highways
-  RESIDENTIAL-SINGLE FAMILY
-  SPECIAL USE
-  TIMBER PRODUCTION

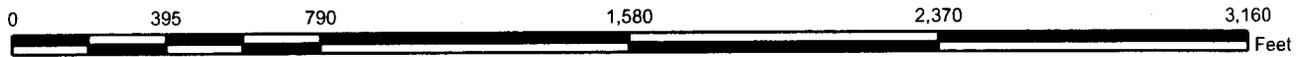
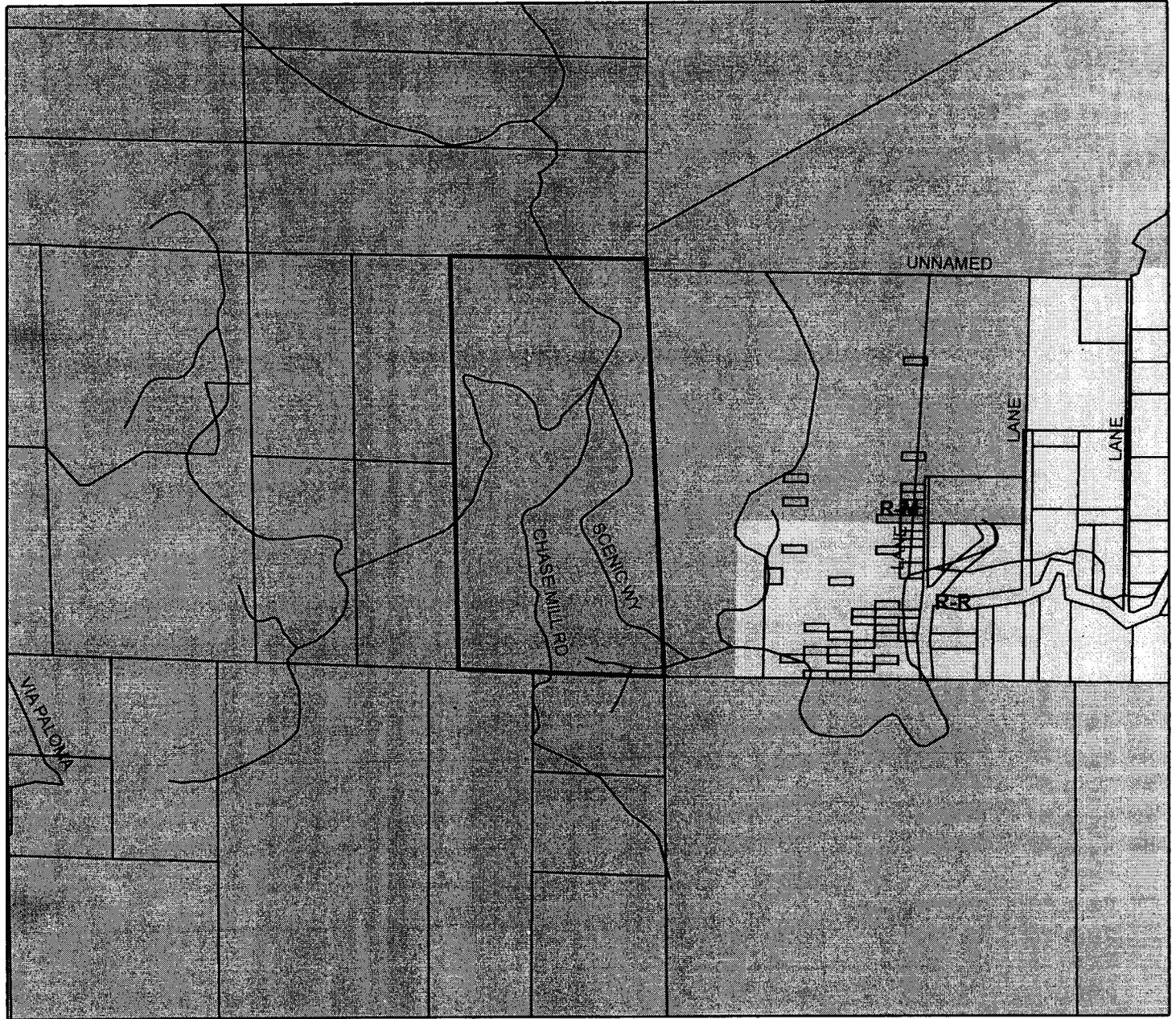


Map created by
County of Santa Cruz
Planning Department
August 2007

EXHIBIT

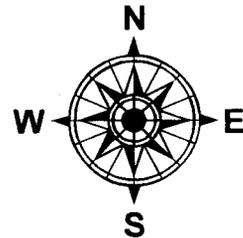


General Plan Designation Map



LEGEND

-  APN: 087-053-21
-  Streets
-  Assessors Parcels
-  State Highways
-  Residential-Mountain
-  Residential-Rural



Map created by
 County of Santa Cruz
 Planning Department
 August 2007

EXHIBIT C

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: 07-0106

Assessor Parcel Number: 087-053-21

Project Location: Property located on the south side of Chase Mill Road (121 Chase Mill Road) about 500 feet south from intersection with Waterman Gap Loop.

Project Description: Rezone a single parcel from the Special Use (SU) zone districts to the Timber Production (TP) zone district.

Person or Agency Proposing Project: Hen P. Truong, H/W JT etal

Contact Phone Number: (650) 714-6696

- 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). [Section 1703]

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

Maria Porcila Perez, Project Planner

Date: _____

HILDRETH FORESTRY CONSULTING LLC

August 15, 2007

Planning Department
County of Santa Cruz
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

RE: Application #07-0106 (Timber Production Rezone)

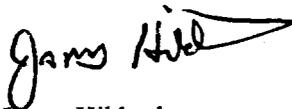
Dear Planning Department:

Please amend this letter to the Chase Mill Timber Management Plan. The plan (dated September 24, 2001) includes two parcels. Only one of these parcels (087-053-21) is the subject of the rezoning to Timber Production.

As a Registered Professional Forester, I certify the following:

1. The subject parcel (087-053-21) is considered timberland as defined in California Government Code Section 51104(f) as the parcel is capable of producing a minimum of 15 cubic feet of timber per acre annually.
2. The subject parcel currently meets the timber stocking standards as set forth in Section 4561 of the Public Resources Code and the Forest Practice Rules for the Southern subdistrict of the Coast Forest District.
3. The subject parcel exceeds the current Santa Cruz County minimum five acre parcel size for Timber Production zoning.

Respectfully submitted,



James Hildreth
Registered Professional Forester #2639

P.O. BOX 1224 CAPITOLA CA 95010
(831) 464-1196
hildrethforestry@calcentral.com

**CHASE MILL PROPERTY
TIMBER MANAGEMENT PLAN**

September 24, 2001

PORTIONS OF
Township 8 South - Range 3 West
Section 35
Santa Cruz County, California

PREPARED BY
Hildreth Forestry Consulting LLC
P.O. Box 1224 Capitola CA 95010 (831) 421-9553

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INTRODUCTION

This management plan is for the Chase Mill property located near San Lorenzo Park. This plan is required by Santa Cruz County in connection with the landowner's application to have the property placed in Timberland Production Zoning (TPZ).

This timber management plan is designed to assist the landowners in the management of the natural resources on their property. The plan describes the property and management goals, identifies problems and opportunities, and outlines management activities needed to meet the landowner's objectives.

The Chase Mill property is made up of two parcels. They are, as recorded by the Santa Cruz County Assessor, as follows:

OWNERS	PARCEL OWNER	ACRES	CURRENT ZONING
Hen Truong	APN # 087-053-21	19.136	20-49.9 acres/rural
Gigantea Sempervirens Metaseauoia, Inc. (Truong)	APN # 087-261-49	9.913	5-19.9 acres/rural
		<u>29.049</u> acres	

FOREST MANAGEMENT OBJECTIVES

The owner desires to manage this forestland for the long-term production of merchantable timber. This goal is to be achieved without degrading the quality of other forest resources such as soils, watershed, wildlife, and recreation. In addition, all future activities will recognize the need to protect the visual quality of the forest and reduce the potential of wildfire.

The immediate objective is to obtain Timber Production Zoning, which will allow management of the property consistent with these objectives. Timber management objectives are to convert even-aged timber stands into an uneven-aged condition using a level of harvest that may be sustained over time. These management objectives are consistent with the California Forest Practice Rules.

GENERAL DESCRIPTION

This property is located approximately 1/2 mile west of San Lorenzo Park in portions of Township 8 South, Range 3 West, Section 35 MDB&M of Santa Cruz County, California. According to the County Assessor Office, the property contains a total of approximately 29 acres. All but one of these acres contain merchantable timber. The one acre without merchantable timber is that strip of land located beneath a power transmission line that runs diagonally through the northwest corner of the property. There are no residences or other structures on the property.

The property is accessible from Highway 236, a paved county road. Further access is provided on a private rocked road to the edge of the property. An improved but unrocked seasonal road on the property provides access during dry weather only.

The merchantable timber consists of medium to well-stocked stands of redwood trees mixed with areas of hardwoods (primarily tan oak with a lesser amount of madrone). There are also large, scattered Douglas-fir trees. The timber is located on moderate to steep slopes. Elevation ranges from approximately 800 to 1100 feet.

The site is located in the San Lorenzo River drainage. A side fork of the river flows from northwest to southeast generally through the middle of the property. It is considered a Class II watercourse in this area. There are one other Class II and several III watercourses within the property that drain into the side fork of the San Lorenzo River.

HISTORY

The property is presumed to have been clearcut harvested during the late 1800's or early 1900's. The large old growth redwood stumps found in the middle of the clumps of merchantable redwood trees evidence this. Portions of the property have been selectively harvested (thinned) about four years ago.

RESOURCES

Soils

According to the Soil Survey of Santa Cruz County (USDA, Soil Conservation Service) the entire property contains two soil types:

Ben Lomond-Felton complex:

This soil complex is well suited to the production of redwood and Douglas-fir. It is used mainly for timber production, recreation, wildlife habitat, and watershed. It is also used for homesites, firewood, apple orchards, vineyards, and pastures.

The Ben Lomond-Felton complex is approximately 35% Aptos fine sandy loam and 30% Nisene loam. The Nisene soil is deep and well drained. Permeability is moderate, runoff is rapid, and the hazard of erosion is moderate to high. Effective rooting depth is 40 to 60 inches.

The Aptos soil is moderately deep and well drained. Permeability is moderate, runoff is rapid, and the hazard of erosion is moderate. Effective rooting depth is 20 to 40 inches.

Sur-Catelli complex:

The soil complex consists of soils on mountainsides, extending from ridges to waterways. The Catelli soil is well suited for the production of Douglas-fir, and the Sur soil is poorly suited. The soil complex is mainly used for watershed, wildlife habitat, recreation and timber production.

The Sur-Catelli complex is approximately 35% Sur stony sandy loam and 25% Catelli sandy loam. The Sur soil is moderately deep and somewhat excessively drained. Permeability is moderately rapid, runoff is very rapid, and the hazard of erosion is very high. Effective rooting depth is 20 to 40 inches.

The Catelli soil is moderately deep and well drained. Permeability is moderately rapid, runoff is very rapid and the hazard of erosion is very high. Effective rooting depth is 20 to 40 inches.

Geology

Landslides:

The Cooper-Clark landslide maps were reviewed and indicate three questionable landslides on the site. No large unstable areas were observed within the plan area. There are two recent small debris flows on the site (within the last ten years.)

The road and skid trail system is in place, and appears stable. All mitigation measures proposed for a timber harvest plan require review and approval from the California Department of Forestry with the assistance of engineering geologists from the Division of Mines and Geology.

Faults:

The geologic map indicates that the Sawmill Fault traverses through the property, where it appears to parallel the main Class II watercourse. This fault starts from the town of Sawmill and continues to the southeast, where it meets the Chase Mill property.

Watershed

This property is located within the Castle Rock Falls watershed. It is identified on State watershed maps as watershed (v. 2.2) 3304.120102 and contains a total of 7,381 acres. Over the last 10 years, approximately 689 acres (9%) of the watershed has been selectively harvested. Most of this harvesting has been conducted with ground based equipment. The watershed area is primarily used for timber production, home sites and recreation.

A side fork of the San Lorenzo River runs through the middle of this property. This property has been logged once (thinned) since the clearcutting at the turn of the century. Long term, adverse impacts to the San Lorenzo River from the past selective harvesting are not apparent.

Wildlife

Wildlife found on this property is typical of the Santa Cruz Mountains. Deer and many species of bird (including raptor) were observed. The wildlife habitat relationship (WHR) classification for the tree dominated habitat is 4D, meaning the average tree size is between 11-24" DBH, and the canopy closure is dense, between 60-100%. Characteristics of late succession stands are not present. There are few snags throughout the stand, and occasional down logs from the turn of the century logging.

Timber harvesting at the turn of the century used clearcut harvesting where all sound merchantable redwood trees were harvested. The current stand of trees naturally regenerated primarily from stump sprouting. This resulted in a dense stand of even-aged redwoods, where sunlight does not reach the understory in amount necessary for conifer reproduction. The timber harvest (thinning) that occurred approximately four years ago has created gaps in the forest canopy which allow sunlight to reach the forest floor. Many conifer seedlings and redwood sprouts were observed during the site inspection of this property.

The goal of the past and future harvesting is to create an uneven-aged forest, with several age classes and canopy levels. The selective harvesting in the 1990's opened up portions of the forest canopy to allow redwood stump sprouting. This was the first step in creating an uneven-aged forest.

Future timber harvests will also use the selection system to open the forest canopy and allow sunlight to penetrate to the forest floor. Harvesting will retain trees from all diameter classes. This silviculture method will gradually move the forest stand towards an uneven-aged structure where growth and harvest is balanced. This type of management generally improves habitat for a wider range of wildlife than in even aged forests.

Rare, Threatened and Endangered Species

The Natural Diversity Database map (March 2000) and the Biotic Resources map were inspected. No RTE species were indicated to exist within the property.

Mammals:

Townsend's western big-eared bat

The NDDDB indicated that this species was found approximately 2 miles west of the plan area. This is outside of the planning area. Federal listed a species of concern.

Survey:

The NDDDB states that it roosts in limestone caves, lava tubes, mines, buildings. Will only roost in the open, hanging from walls and ceilings. No potential habitat was identified within or nearby the plan area.

Birds:

The presence of the listed and unlisted species was investigated. This includes listed raptors (hawks, falcons, and owls) that are known to exist within the county. Raptors that are not listed, but known to breed in the Santa Cruz Mountains, are also included. The NDDDB and Biotic Resources maps do not indicate that any listed species is known to exist within or nearby the plan area.

The following is a partial list of raptors that occur within the Santa Cruz Mountains.

Marbled murrelet:

Federal listed as threatened. State listed endangered. According to the NDDDB Marbled murrelet habitat exists approximately 3.75 miles southwest of the plan area within Big Basin.

Breeders require mature, coastal coniferous forest for nesting and nearby coastal waters for feeding. Uses old growth and mature trees for nesting. Probably prefers to nest in tall trees; nest made of moss and lichen. Included on the NDDDB Special Status Plants, Animals, and Natural Communities of Santa Cruz County. No habitat found within the property.

Sharp-shinned hawk:

State listed species of special concern. Listed as a species of special concern within Santa Cruz County. The sharp-shinned hawk is a common breeding species in Santa Cruz County. Usually nests in dense, pole and small-tree stands of conifer, which are cool, moist, well shaded, with little ground cover, near water. Habitat used includes forests similar to the plan area. None are known within the property.

Cooper's hawk:

State listed species of special concern. Listed as a species of special concern within Santa Cruz County. The Cooper's hawk is a common breeding species in Santa Cruz County. Dense stands of live oak, riparian deciduous or other forest habitats near water used most frequently. Frequents landscapes where wooded areas occur in patches and groves. Usually nests in second-growth conifer stands, or in deciduous riparian areas, usually near streams. Potential habitat is located within the

property. None were observed.

Golden Eagle:

The golden eagle is a CDFG Species of Special Concern and a CDF Sensitive Species. Golden eagles require wide open country for foraging. Habitat typically is rolling foothills, mountain areas, sage-juniper flats, and desert. Nests typically are built on cliffs, however, in the California coast range, most nests are built in trees, principally oaks, cottonwoods, and sycamores. Builds large platform nest, often 10' across and 3' high of sticks, twigs and greenery. No habitat is found within the property.

Peregrine falcon:

State-listed endangered. Frequents bodies of water in open areas with cliffs and canyons nearby for cover and nesting. Requires protected cliffs and ledges for cover. Breeds near wetlands, lakes, rivers, or other water near high cliffs, banks, dunes, mounds. Nest is a scrape on a depression or ledge in an open site. Will nest on human-made structures, and occasionally uses tree or snag cavities or old nests of other raptors. No habitat is found within the property.

Osprey:

The osprey is a CDFG Species of Concern, a CDF Sensitive species, and a Board listed species. Associated strictly with large, fish bearing waters, primarily in ponderosa pine through mixed conifer forest habitat. Uses large trees, snags, and dead topped trees in open forest habitats for cover and nesting. Nests on platform of sticks at the top of large snags, dead topped trees or cliffs. No habitat found within the property.

White-tailed kite:

State listed species of special concern. Uses herbaceous lowlands with variable tree growth and dense populations of voles. Substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting. Rarely found away from agricultural areas. No habitat is found within or near the property.

Red-tailed Hawk:

Not listed but known in Santa Cruz County as common to abundant in the spring, fall and winter, and common in the summer. Breeds throughout California, and winters in all areas without heavy snow cover. Found in almost all habitats, from lowest to highest elevations. Highly adaptable, uses grasslands, open brush habitats, and open stands of deciduous and conifer forests. Also frequents croplands, fields, and pastures. Feeds in grasslands and grass/shrub stages of most habitats. Roosts in trees, sometimes in dense conifer stands. Usually nests in large trees near openings, in older mature forests, especially riparian deciduous habitat. Occasionally nests on cliffs or low ledges. Potential habitat is found within the property. None were observed.

Red-shouldered hawk:

Not listed but known in Santa Cruz County as fairly common in the fall and winter, and uncommon in the spring and summer. Typical habitat includes dense riparian areas, with adjacent edges, swamps, marshes, and wet meadows for hunting. Forages mostly along edges of wet meadows, swamps, and

emergent wetlands. Primarily uses tree foliage in riparian deciduous habitat for cover. Nests in dense riparian habitats. Builds a nest of sticks about half way up in a tall tree. Potential habitat is found within the property. None were observed.

Western Screech-Owl:

Not listed but known in Santa Cruz County as common to abundant in all seasons. Uses edges of oak, riparian, or conifer habitat with snags, tree cavities, or woodpecker holes for nesting and roosting, and openings and meadows nearby for feeding. Obligate secondary cavity-nester. Uses abandoned woodpecker hole, or other cavity in snags, hollow tree, log or stump. Yearlong, nocturnal activity. Potential habitat is found within the property. None were observed.

Great Horned Owl:

Not listed but known in Santa Cruz County as fairly common in all seasons. Frequents forested habitats; feeds especially in edges, openings and meadows. Requires trees with dense foliage for roosting; often uses thickly wooded canyons. Nests in abandoned hawk, crow, raven, or squirrel nest, in a cave or crevice. Yearlong, nocturnal activity. Potential habitat is found within the property. None were observed.

Northern Pygmy-Owl:

Not listed but known in Santa Cruz County as uncommon in all seasons. Uses mostly forest habitats; especially edges and openings, requires stands with snags and trees with woodpecker holes and other cavities. Frequents sparse to intermediate canopy cover, uses cavities in trees and snags for roosting and nesting. Nests in abandoned woodpecker hole or natural cavity. Considerable diurnal activity. Potential habitat is found within the property. None were observed.

Northern Saw-whet Owl:

Not listed but known in Santa Cruz County as common to abundant in all seasons. Frequents forest and herbaceous edges. Common in mature riparian and oak habitats with intermediate canopy closure. Roosts perches or in a tree cavity, usually in a snag, in broken forest habitats. Nests in tree and snag cavities and woodpecker holes. Conifers preferred, but hardwood snags also used. Yearlong nocturnal activity. Potential habitat is found within the property. None were observed.

Fish:

The side fork of the San Lorenzo River flowing through the property is a Class II stream, and therefore has no fish use. In general, the watercourse has a narrow, shallow streambed. Streamside vegetation includes redwoods, Douglas-fir and hardwood trees. The canopy density for the stream averages approximately 80 to 85%. Mitigation measures taken after the 1990's harvest have ensured that there have been no adverse affects to downstream fish habitat as a result of that timber harvest.

Steelhead and coho salmon are known to exist within the San Lorenzo River watershed. The San Lorenzo River suffers from various habitat deficiencies for Coho salmon according to the CDF&G Memorandum dated 2-6-96 from Nelson/Anderson to Steele. This includes high silt loading from bank erosion, logging, flood control projects, development, and road maintenance; poor water quality

from high temperature, salinity, and toxics; barriers to fish passage; decreased riparian vegetation, causing raised water temperatures and lack of insects; lower reaches have no habitat complexity from flood control project; increased sediment load from natural disasters; and reduced habitat from invasive plants.

Mitigation measures for downstream fish habitat would be related to timber harvesting within the WLPZ of the Class II and Class III streams on the property. Forest Practices Rules provide protection measures such as canopy retention and soil erosion control measures.

Amphibians:

The NDDDB does not report any sightings of listed amphibians within the upper San Lorenzo River watershed. This includes no occurrence of either the foothill yellow-legged frog or the California red-legged frog within the watershed.

The side fork of the San Lorenzo River does not contain potential habitat as deep pools or ponds were not observed within the property. Future harvests will provide protection to watercourses as required by the Forest Practice Rules. This includes establishing a watercourse and lake protection zone (WLPZ), and retaining crown canopy and limiting equipment operations within the WLPZ.

Plant:

No RTE or special status plants were noted on the NDDDB or Biotic Resource maps as occurring on the property. None were observed on the property. During the development of a timber harvest plan, the Forest Practice Rules require information on RTE or special status plants.

The plant species below are those listed on the NDDDB, within a 5 mile radius of the plan area.

Santa Cruz manzanita (*Arctostaphylos silvicola*):

Found in several locations ranging from .5 to 5 miles from the plan area. Located on broadleaved upland forest, chaparral, and north coast coniferous forest. Federally listed as a species of concern. None are known within plan area.

Santa Cruz Microseris (*Stebbinsoseris decipiens*)

Found approximately 4.5 miles southwest of the plan area. Located on broadleaved upland forests, closed-cone conifer forests, chaparral, coastal prairies, coastal scrub and open areas. This species is threatened from grazing. No habitat is found within plan area.

White-rayed pentachaeta (*Pentachaeta bellidiflora*):

Found in two locations ranging from 3.75 to 4.25 miles from the plan area. Located on valley and foothill grasslands. State and federal listed as endangered. No habitat is found within plan area.

Santa Cruz cypress (*Cupressus abramsiana*):

Found in five locations ranging from 3.75-4.5 miles from plan area. Located in closed cone coniferous forests and lower montaine coniferous forest. Restricted to Santa Cruz County on

sandstone and granite derived soils, often with knobcone pine and redwood. State and federal listed as endangered. No habitat is found within plan area.

Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*):

Found in four locations ranging from 2 to 4.25 miles from plan area. Located in lower montaine coniferous forest on Zayante coarse sands. Federally listed as endangered. No habitat is found within plan area.

Santa Cruz beardtongue (*Penstemon rattanii* var. *kleei*):

Found approximately 3 miles south of plan area. Located on chaparral or lower montaine coniferous forest. Sandy shale slopes. No habitat is found within plan area. Not federal or state listed, but is a Special Status Natural Community on the NDDB, and is a county species of concern.

Bonny Doon manzanita (*Arctostaphylos silvicola*):

Found approximately .5 miles southeast of the plan area. Located in chaparral, closed cone coniferous forest, and lower montaine coniferous forests. Only known from Zayante (inland marine) sands in Santa Cruz County. No habitat is found within plan area. Federally listed as a species of concern.

Dudley's Lousewort (*pedicularis dudleyi*)

Found approximately 4.5 miles northwest of the plan area. This listed species is not mapped as being found within the assessment area. Its historic NDDB mapped location was near Aptos, however, it has also been found in Portola State Park. Located on maritime chaparral, valley floor grasslands, and north coast coniferous forest. The harvest area does not contain maritime chaparral or valley floor grassland. The harvest area is comprised of north coast coniferous forest. Within this habitat type, *p. dudleyi* is known as a very rare species with most records from road and skid trail cutbanks. The scarcity of the plant and distance from its known locations makes its presence extremely unlikely.

Santa Clara Red Ribbons (*Clarkia concinna* ssp. *automixa*):

Found approximately 3.75 miles north of the plan area. This is federally listed as a species of concern. Located on Great Basin scrub, where shrub heights range from very short to less than 20 cm, on cold sites or shallow soils. Perennial grasses occupy much of the space between shrub communities. No habitat is found within the plan area.

Ben Lomond buckwheat (*Eriogonum nudum* var. *decurrens*):

Found approximately 3.75 miles southeast of the plan area. Located on chaparral, cismontane woodland, and lower montaine coniferous forest. Found in ponderosa pine sandhills in Santa Cruz County. No habitat is found within plan area. Not federal or state listed, but is a Special Status plant on the NDDB.

Pajaro manzanita:

Found approximately 4.5 miles south of plan area. This species is federally listed as a species of concern. Located on chaparral and sandy soils. May be extinct in Santa Cruz County. No habitat is found within plan area.

Ancient Trees

No ancient trees were noted during the timber cruise.

Recreation

Recreation on the property includes observing wildlife and hiking. Future harvesting will be selective, and should be designed to enhance or maintain the aesthetics surroundings.

Cultural

No historical or archaeological sites are known to exist on the property. The presence of archeological or historical sites was not observed. An intensive survey was not conducted. An archaeological records check and archaeological field survey will be conducted prior to future timber harvest operations as required by the Forest Practice Rules. If any sites are found in the future, they will be preserved.

Timber Description

The total acreage of this property is approximately 29 acres. The merchantable timber on this property is an approximately 28 acre stand of coast redwood. Approximately one acre of the property is located underneath a power transmission line, and is therefore not considered merchantable timber acreage. A portion of the 28 acres of merchantable timber is within Class 2 WLPZ's where harvesting will be restricted due to the need to retain crown canopy as required by Forest Practice Rules.

The redwood occurs in well-stocked clumps, intermixed with hardwoods (primarily tan oak with a small amount of madrone) and a few, scattered Douglas-fir. The average site index is site III. The stand consists primarily of two age classes of approximately 90 and 4 years. The area appears to have been clearcut around the turn of the century. Growth slowed as the trees grew larger and closer together, and began competing for available water, nutrients, and sunlight. The selective harvest in the 1990's reduced competition, and trees in all size classes were retained.

Future harvests will continue to create an uneven-aged stand. This will be accomplished by selectively thinning clumps of redwoods. The goal of future selective harvests will be to produce adequate light for vigorous stump sprouting, to promote growth on residual trees, to promote continued production of high quality redwood timber by maintaining good spacing and good distribution of diameter classes, and to maintain an aesthetically pleasing forest.

TIMBER INVENTORY

Sampling Method

An inventory of the 28 acres of merchantable timber was conducted in April of 2001. This cruise consisted of the tallying of 28 variable radius plots. Plot locations were evenly spaced on a 200 foot by 200 foot grid to insure representative sampling.

Diameters (dbh) were measured or estimated at breast height. The form factor was measured with a Releskop or estimated on all sample trees. This form factor is the diameter at 16 feet above the stump (form point) divided by the dbh. Merchantable bole height was measured with a Relaskop or estimated on all sample trees to a height equivalent to 40% of the diameter at form point. All measurements are taken outside the bark.

Logs were cruised in variable log lengths to optimize recovery. Defect was estimated with cull segments or as a scaling deduction from a log. Minimum log size used is 5 inches by 12 feet. Minimum dbh cruised was 12 inches. All volumes are presented as Scribner short log scale.

Results

The redwood averages 26" dbh with a net volume of 23.7 thousand board feet (MBF) per acre. The Douglas-fir averages 37" dbh and 6.8 MBF per acre. The total net volume of both species is 30.5 MBF per acre for a total of 854 MBF.

The redwood averages 124.4 square feet of basal area per acre, and the Douglas-fir averages 25.4 square feet of basal area per acre. There is a total of 149.8 square feet of basal area per acre for both species.

TIMBER STAND SUMMARY(2001)

REDWOOD

	Diameter Class (inches)				<u>Total</u>
	<u>12-16</u>	<u>18-24</u>	<u>26-34</u>	<u>36+</u>	
Trees per Acre	3.5	15.1	12.7	2.9	34.2 trees
Net Volume/Acre(BdFt)	257	5585	11,916	5915	23,676

DOUGLAS-FIR

	Diameter Class (inches)				<u>Total</u>
	<u>12-16</u>	<u>18-24</u>	<u>26-34</u>	<u>36+</u>	
Trees per Acre	0	0.9	0.8	1.8	3.4 trees
Net Volume/Acre(BdFt)	0	130	985	5717	6,832

TOTAL REDWOOD & DOUGLAS-FIR

	Diameter Class (inches)				<u>Total</u>
	<u>12-16</u>	<u>18-24</u>	<u>26-34</u>	<u>36+</u>	
Trees per Acre	3.5	16	13.5	4.7	37.6 trees
Net Volume/Acre(BdFt)	257	5715	12,901	11,632	30,507

Limitation:

All cruise data presented in this report is intended to be used as a guide for this management plan only, and should not be used or taken out of context for any other purposes (including valuation of the merchantable timber).

MANAGEMENT PRACTICES

Roads

There is an existing seasonal dirt logging road that provides good access to the timber. This haul road connects with a short segment of rocky private road, which then connects with County Highway 236. The past harvesting in the 1990's used this haul route.

The primary potential urban interface consideration is log truck traffic on this county road system, which is used for residential access. Since the future harvest operations are limited and can be completed within a few weeks, traffic impacts are not long lasting. The 10 to 15 years between harvesting will help to reduce neighborhood impacts.

Fire Protection

The property is located on slopes above the San Lorenzo River (approximately one mile). The existing road system provides good access for fire fighting. The property is heavily wooded, and future harvesting needs to provide for fire protection. Forest Practice Rules, including those regarding fire protection, will be followed in future timber harvest operations. The slash will be lopped after each operation to reduce fire danger. Special treatment areas shall be established near residences on adjacent properties as required by the Forest Practice Rules.

Recreation

No recreational enhancements of the property are planned. The visual aesthetics of the property will be preserved through careful planning and supervision of timber harvesting operations.

Wildlife

Management activities are directed at protecting and enhancing wildlife diversity. The selective cutting practices have the goal of creating several age classes and canopy layers. This will create habitat for a wider range of species.

Redwood and Douglas-fir snags will be retained during harvest operations where they do not present a safety or fire hazard. Downed logs (16" by 20' minimum) will also be retained. Several large Douglas-fir trees were observed that have minimal merchantable value. These trees may be recruited for future snags and downed logs. They should be retained where they will not compete for sunlight with other conifer.

Timber Management

Harvest

The stand of timber has regenerated from clearcut logging at the turn of the century. The stand was selectively harvested approximately 4 years ago. It now contains a medium to well-stocked stand

of approximately 90 and 4 year old redwood trees. The average site index for the stand is site III. The average growth rate of the stand is approximately 4 % per year. The trees are well spaced after the recent selective harvest, and the growth rate is good.

Based upon this information, a selective harvest is recommended to occur between the years 2007 and 2010. The goal is to continue to create a healthy uneven-aged stand where harvests are sustainable (harvest does not exceed growth). The current stand (2001) of redwood has approximately 30 thousand board feet (MBF) per acre. Assuming a 4% growth rate, the stand will have approximately 38 MBF per acre in 2007, which is the earliest the next harvest can occur. The harvest should remove about 15 MBF per acre or 420 MBF total (adjusted for leaving additional trees for watercourse protection). This will leave residual stands of 23 MBF per acre. Approximately 40 to 45% of the trees 18" in diameter or more should be harvested. In order to move towards an optimal uneven-aged size class distribution, some trees from all size classes should be retained. However, trees in the 24-28" diameter range should account for a large proportion of harvested trees. No trees under 18" diameter will be removed unless removal will promote growth and increase vigor to adjacent trees or when damaged. At least 75 square feet of basal area (Site III lands) must be retained as required by the Forest Practice Rules.

The increased light and growing space that is provided by the removal of harvested trees increases the growth of residual trees and initiates the sprouting of a new generation of redwood trees. The residual stand, anticipated to grow at an average growth rate of 4%, will reach approximately 34 MBF per acre 10 years after the next selective harvest (assumed to be approximately 2017).

Forest Practice Rules require a minimum of 10 years between selective harvests when 50% or less of the trees are harvested. Future selective harvests are recommended on roughly a 10 to 15 year cutting cycle. These should harvest in the range of 40 to 45% of the trees 18"+ dbh. Over the long term, overall growth on the property will improve as sprouts reach maturity and contribute to the harvest. Growth should be re-evaluated in the future to see if the level of harvest needs to be adjusted to maintain a balance between growth and harvest.

Logging Practices

Most of the harvest area is on moderate to steep terrain. The entire stand may be tractor logged using the existing network of skid trails and logging roads. The soil survey indicated a moderate to high hazard of erosion. All logging practices should be designed to minimize the potential for sediment to enter the Class II watercourse.

Other class II and III watercourses are located within the proposed harvest area. Watercourse and Lake Protection Zones are required on Class II watercourses and Equipment Limitation Zones are required on Class III watercourses.

Soil Stabilization

The proper location and construction of roads and skid trails is critical to minimizing the potential

for soil erosion. All trails and roads are in place, and no new road or skid trail construction appears necessary. Proper drainage devices will be installed as part of each future harvest operation. These devices include waterbreaks, outsloping, grass seeding and mulching, and the use of temporary culverts. It is recommended that the seasonal haul road be grass seeded after each timber harvest operation.

These existing roads and skid trails were used for the previous 1990's harvest. Most of the trails appear stable, however, one minor cutbank failure was noted that has since been repaired by the landowner. Specific mitigation for these unstable areas is required in the preparation of a timber harvest plan. All proposed mitigation requires the approval of the California Department of Forestry and the California Division of Mines and Geology.

Watercourse Protection

Future logging may take place within the Watercourse and Lake Protection Zone (WLPZ) of the Class II watercourses present on the property. Within the WLPZ, Forest Practice Rules require the retention of trees to provide canopy cover that protects stream temperature. Additional requirements include retaining trees on the streambank, retaining trees leaning towards or over the watercourse, excluding ground based equipment within the WLPZ, and falling trees away from the stream.

Class II and Class III watercourses flow through the stands of merchantable timber. These watercourses eventually drain into the San Lorenzo River. The Forest Practice Rules requirements for Class II watercourses include the retention of crown canopy, and excluding ground based equipment except for at watercourse crossings. The Class III watercourses require equipment limitation zones. These watercourses run water only during periods of rainfall.

These resources were protected during past harvesting, and will be protected in the future. This protection includes buffers and during THP preparation, the notification of neighbors of the intent to harvest/domestic water supply inquiry as required by the Forest Practice Rules.

Timber Stand Improvement

In order to achieve a fully stocked stand for the future, tree planting and sprout thinning is recommended. The objective is to achieve a fully stocked stand of redwoods with multiple age classes. This stand improvement will be conducted in areas that have supported redwood in the past.

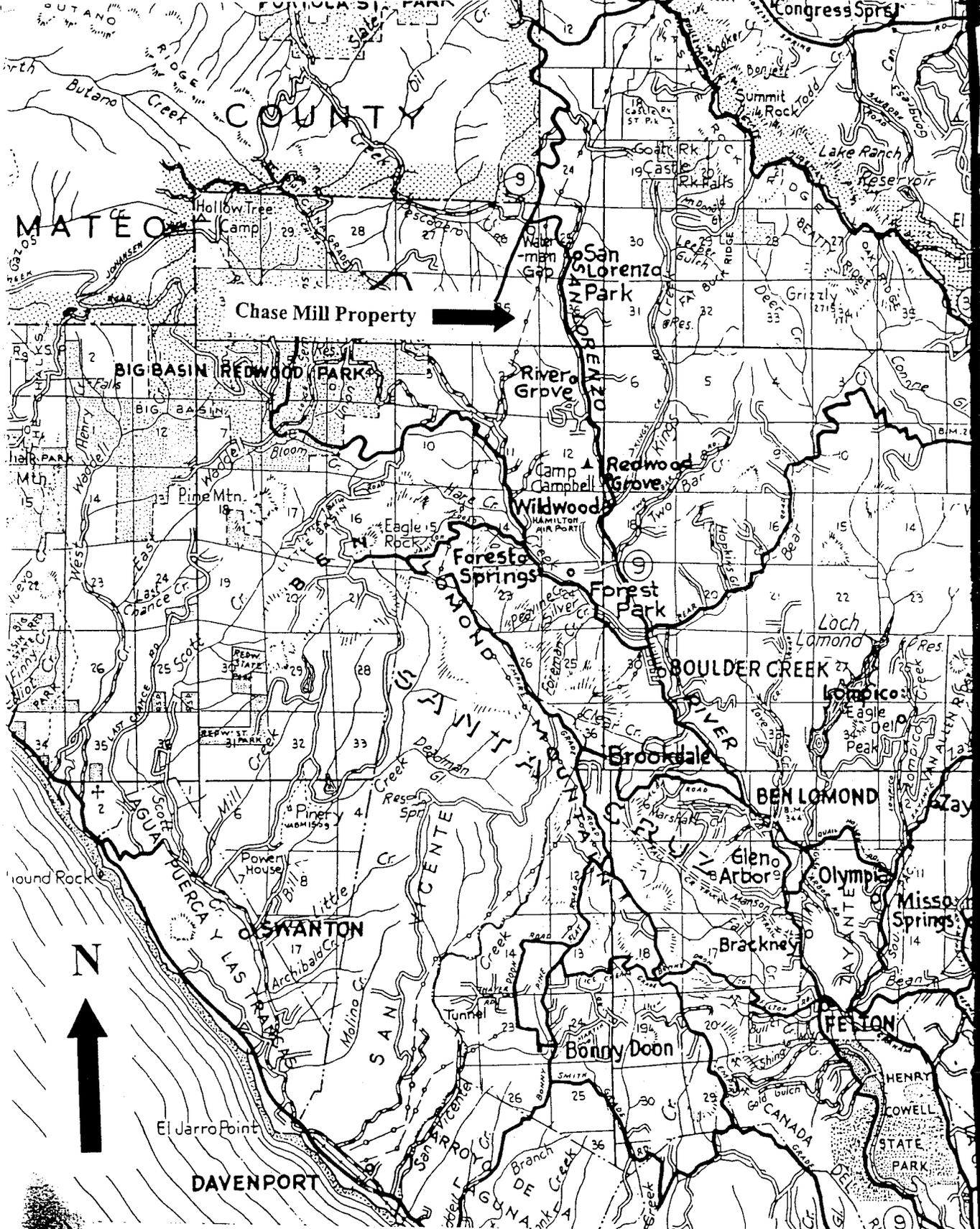
Multiple stump sprouts resulting from harvesting should be thinned to an average of 2-3 healthy sprouts per stump. This practice should be completed about 4-8 years after harvest, or when competition dictates. This will produce healthier and more vigorous young trees in the understory. Dead and unhealthy small trees and sprouts should be cut to reduce competition and reduce fire hazard. All harvest areas will have the slash lopped to within 30 inches of the ground as required by Forest Practice Rules.

Tree planting should be limited to those areas that are open enough for a good chance of

establishment and growth. Areas for planting trees should be cleared of brush and logging slash during the clean up after logging. It is recommended that 2 year old redwood seedlings from the appropriate seed zone be planted on a 8' by 8' spacing. The removal of competing vegetation around each seedling for the first 3 years will likely be necessary for seedling survival.

MAPS

Vicinity Map
Plat Map
Topographic Map
Cooper Clark Landslide Map
Soil Type Map
Geology Map



Chase Mill TMP – Vicinity Map

Portions of Section 35
 Township 8 South
 Range 3 West

EXHIBIT

Chase Mill TMP - Coopers-Clark Slide Map

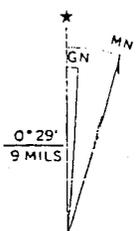
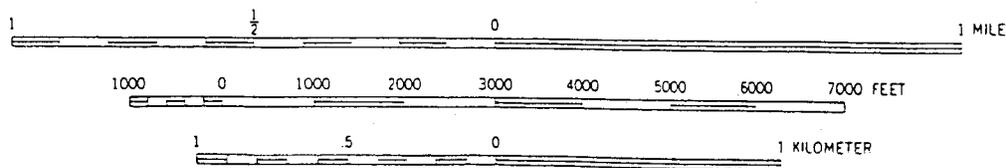
Portions of Section 35
Township 8 South
Range 3 West



Legend

Property/Plan Area Boundary	—
Possible Landslide	?
Probable Landslide	P
Small Landslide	○

SCALE 1:24000



UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

- 34 -
20

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

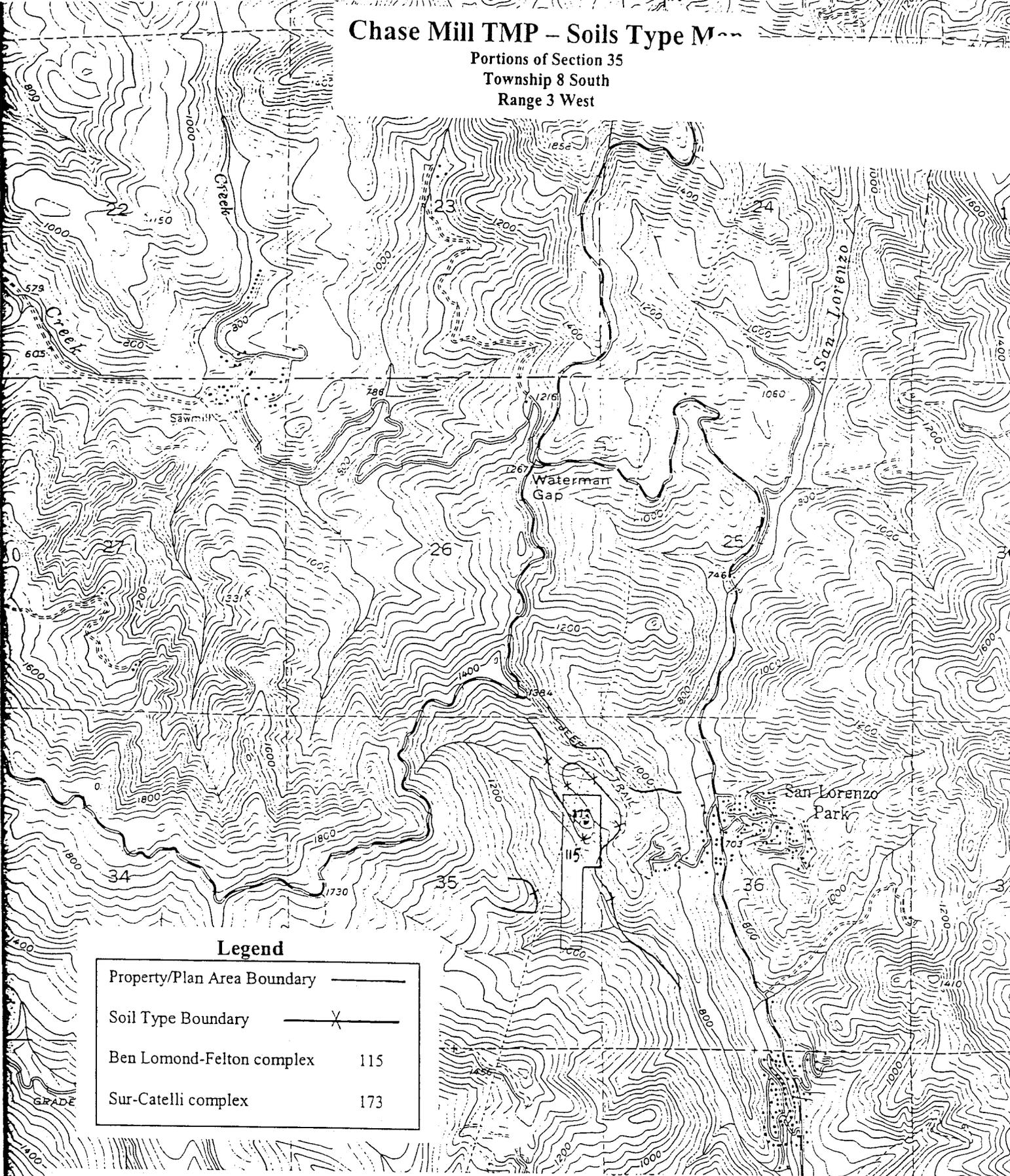
EXHIBIT E

Chase Mill TMP – Soils Type Map

Portions of Section 35

Township 8 South

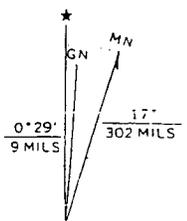
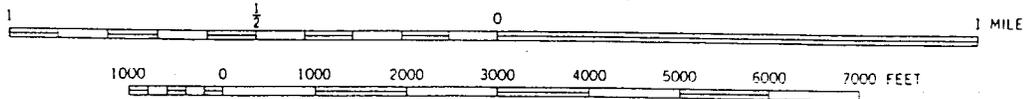
Range 3 West



Legend

Property/Plan Area Boundary	—
Soil Type Boundary	— X —
Ben Lomond-Felton complex	115
Sur-Catelli complex	173

SCALE 1:24 000

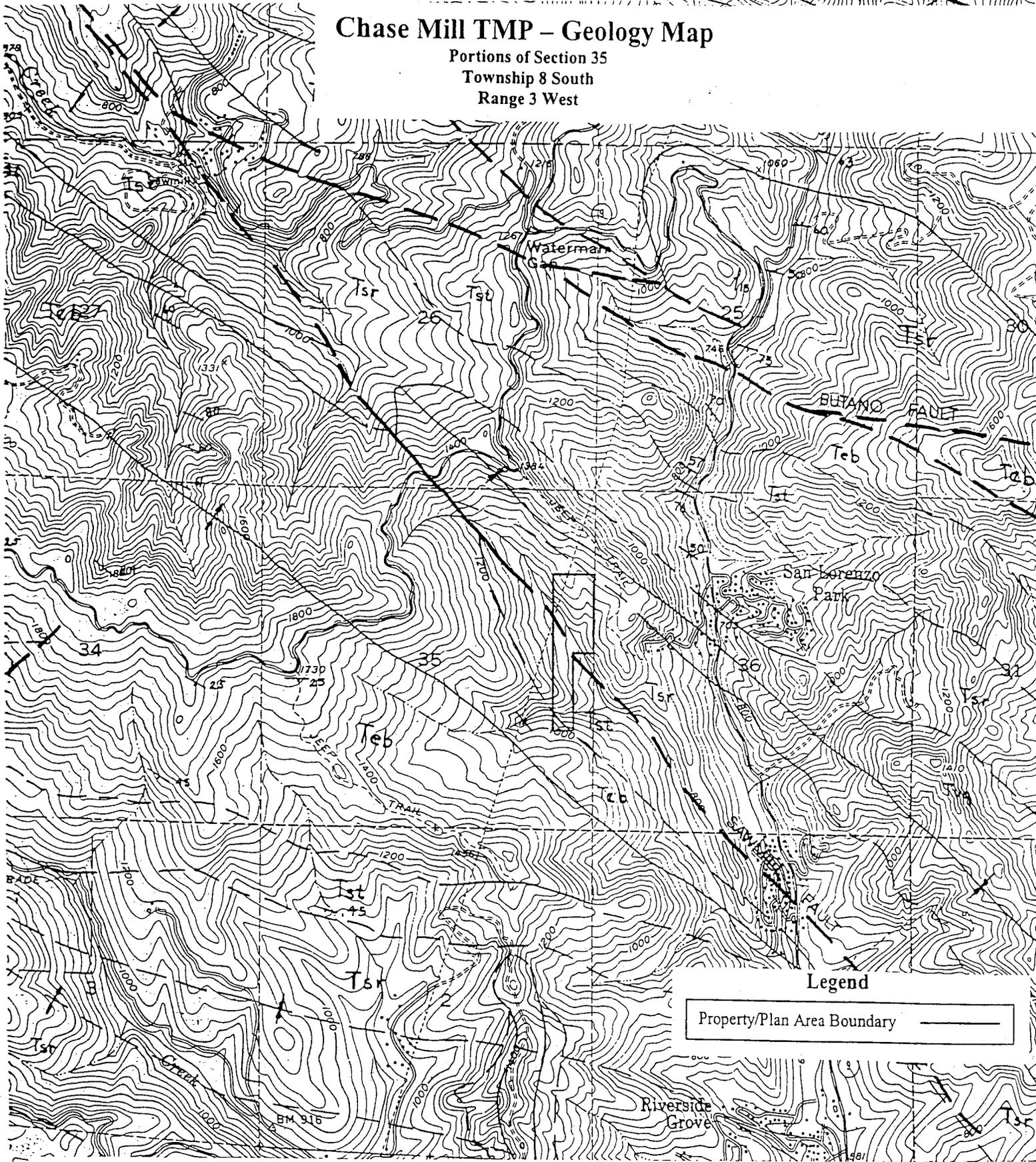


1 -35-5 0 1 MILE
 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
 21 CONTOUR INTERVAL 40 FEET

EXHIBIT E

Chase Mill TMP - Geology Map

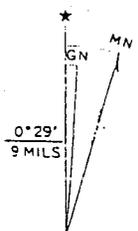
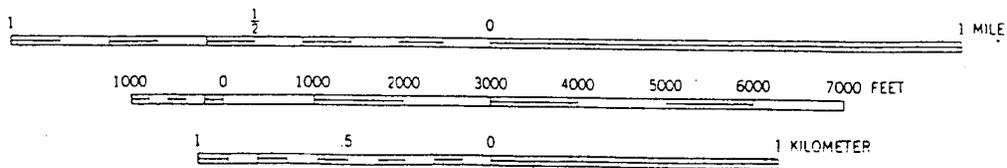
Portions of Section 35
Township 8 South
Range 3 West



Legend

Property/Plan Area Boundary ———

SCALE 1:24000



UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

- 36 -
22

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

EXHIBIT E

TIMBER CRUISE SUMMARY

PROJECT REPORT(LA)
CATALOG

PROJECT CHASMIL
TWP 08S RGE 03W SEC 35

PAGE 1
DATE: 04/24/01
TIME: 03:21pm

TYPE	NO ACRES	SP	YRS	D4H	FF	BOL HGT	BA/A SQFT	TREE /AC	LOGS /AC	AVE CF	LOG BF	-PER ACRE- CF	BF	---TOTAL--- CUNITS	MBF
0001	28.00														
	DF			36.8	86	100	25.4	3.4	8	134	810	1132	6832	317	191
	RED			25.8	80	88	124.4	34.2	81	59	292	4796	23676	1343	663
	TYPE			27.0	80	89	149.8	37.6	89	66	341	5927	30507	1660	854
PR	28.00														
	DF			36.8	86	100	25.4	3.4	8	134	810	1132	6832	317	191
	RED			25.8	80	88	124.4	34.2	81	59	292	4796	23676	1343	663
	PROJ							37.6	89	66	341	5927	30507	1660	854

EXHIBIT E

TYPE REPORT (ID)
STAND TABLE BY D4H 1" CLASS - SIDE

PROJECT CHASMIL
TWP 08S RGE 03W SEC 35 TY 0001 AC 28.00

Plots 28 BFT:E
Trees 69 CUB:1
TP

PAGE 1
DATE: 04/24/01
TIME: 03:22pm

SPECIES	D4H	AVE. TOT.HT	TREES/ ACRE	TONS/ ACRE	BA/ ACRE	CUFT/ ACRE	BDFT/ ACRE	BDFT PCT	LOGS/ ACRE	TOTAL MBF
DOUG FIR	20	74	0.9	0.87	2.0	31	130	2	1	4
	26	143	0.5	2.41	1.9	84	461	7	2	13
	34	133	0.3	2.56	1.9	90	524	8	1	15
	40	157	0.5	5.26	4.0	185	1235	18	2	35
	42	160	0.2	2.91	1.9	102	645	9	1	18
	44	146	0.2	2.61	1.9	92	486	7	1	14
	45	180	0.2	3.14	1.9	110	696	10	1	19
	46	157	0.5	7.01	5.9	246	1471	22	1	41
	58	165	0.1	3.07	2.0	108	657	10	0	18
	68	160	0.1	2.42	2.0	85	528	8	0	15
DOUG FIR AVE.			3.4	32.25	25.4	1132	6832	22	8	191
REDWOOD	15	38	1.8	0.73	2.2	29	55	0	2	2
	16	73	1.7	1.51	2.3	61	202	1	3	6
	18	94	6.6	9.27	11.7	371	1360	6	12	38
	20	109	2.0	3.57	4.3	143	646	3	4	18
	22	108	2.5	5.81	6.7	233	964	4	5	27
	24	138	4.0	13.13	12.6	525	2615	11	11	73
	26	134	5.4	20.02	20.0	801	3983	17	16	112
	28	146	1.6	6.98	6.7	279	1451	6	4	41
	29	173	0.4	2.48	1.9	99	588	2	1	16
	30	125	1.9	8.71	9.2	348	1679	7	5	47
	31	150	0.4	2.38	2.1	95	514	2	1	14
	32	145	1.6	9.58	8.7	383	2075	9	5	58
	34	116	1.4	8.28	8.8	331	1626	7	3	46
	36	151	0.6	4.93	4.2	197	1112	5	2	31
	38	104	0.3	1.93	2.2	77	349	1	1	10
	40	145	1.3	12.32	11.7	493	2745	12	4	77
	46	115	0.2	1.81	2.2	72	435	2	1	12
	48	117	0.2	2.08	2.2	83	417	2	0	12
	50	118	0.2	2.20	2.3	88	425	2	0	12
	56	121	0.1	2.16	2.2	86	432	2	0	12
REDWOOD AVE.			34.2	119.89	124.4	4796	23676	78	81	663
TYPE AVE.			37.6	152.14	149.8	5927	30507	100	89	854

EXHIBIT E