



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

July 6, 2007

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

Agenda Date: July 25, 2007
APN: 097-251-16
Application: 07-0173
Item #: 13

Subject: A public bearing 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 April 11, 2007, the County Planning Department accepted this application for a rezoning to Timber Production (TP). This is a proposal to rezone a 50 acre parcel from the Special Use (SU) zone district to the Timber Production (TP) designation. The uses on the property consist of single family dwelling.

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.

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

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 51112.

(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.

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

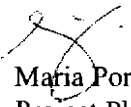
All of the criteria have been met for rezoning this parcel to the Timber Production zoning designation. All required findings can be made to approve this application and the rezoning is consistent with the General Plan policies and land use designations.

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. 07-0231 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 Roy Webster, RPF #1765 dated April 2,2007


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. 07-0173, involving property located on the west side of Soquel-San Jose Road directly west and across the street from the intersection of Soquel-San Jose Road and Amaya Ridge Road (7107 Soquel-San Jose Road), 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.

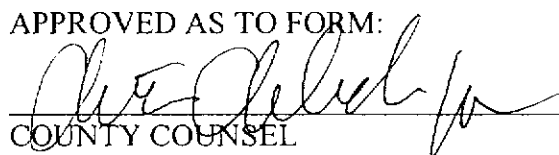
PASSED AND ADOPTED by the Planning Commission of the County of Santa Cruz, State of California, this _____ day of _____, 2007, by the following vote:

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 west side of Soquel-San Jose Road directly west and across the street from the intersection of Soquel-San Jose Road and Amaya Ridge Road (7107 Soquel-San Jose Road); 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 111, 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
1. The proposed zone district is appropriate for the level of utilities and community services available to the land; and
2. 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
3. The property meets the requirements of Government Code section 51113 or 51113.5 and County Code Section 13.10.375(c).

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>
097-251-16	Special Use (SU)	TP

SECTION IV

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

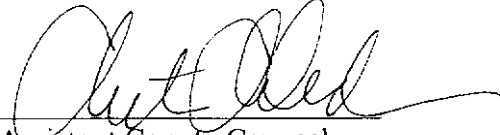
PASSED AND ADOPTED THIS _____ day of _____ 2007, by the Board of Supervisors of the County of Santa Cruz by the following **vote**:

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

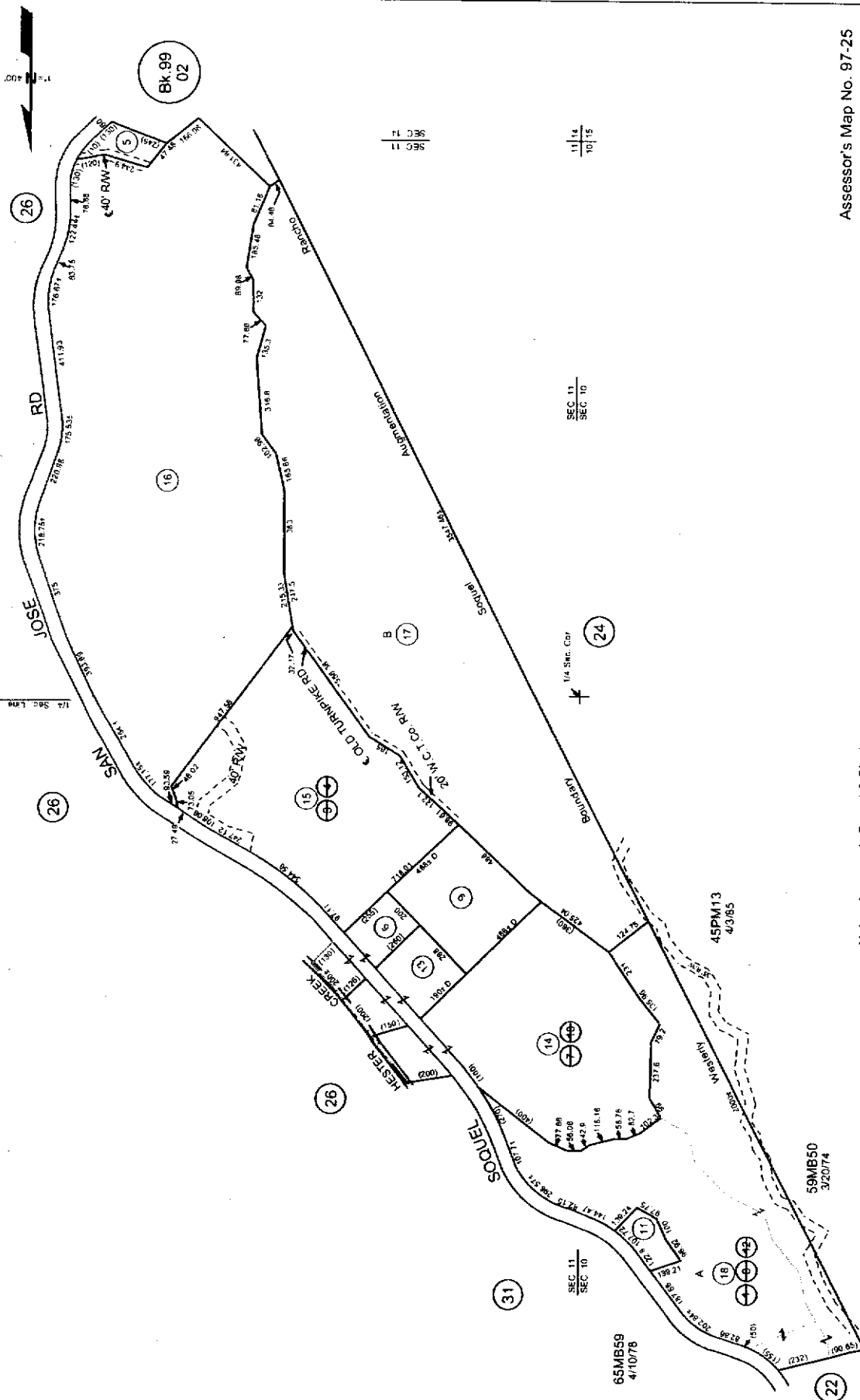
Exhibit: Rezoning **Map**

DISTRIBUTION: County Counsel
 Planning
 Assessor
 County

GIS

JOUEL AUGMENTATION RANGU
POR. SECS. 3, 10 & 11, T. 10S., R. 1W., M.D.B. & M.

FOR INFORMATION ONLY



Assessor's Map No. 97-25
County of Santa Cruz, Calif.
Jan. 1999

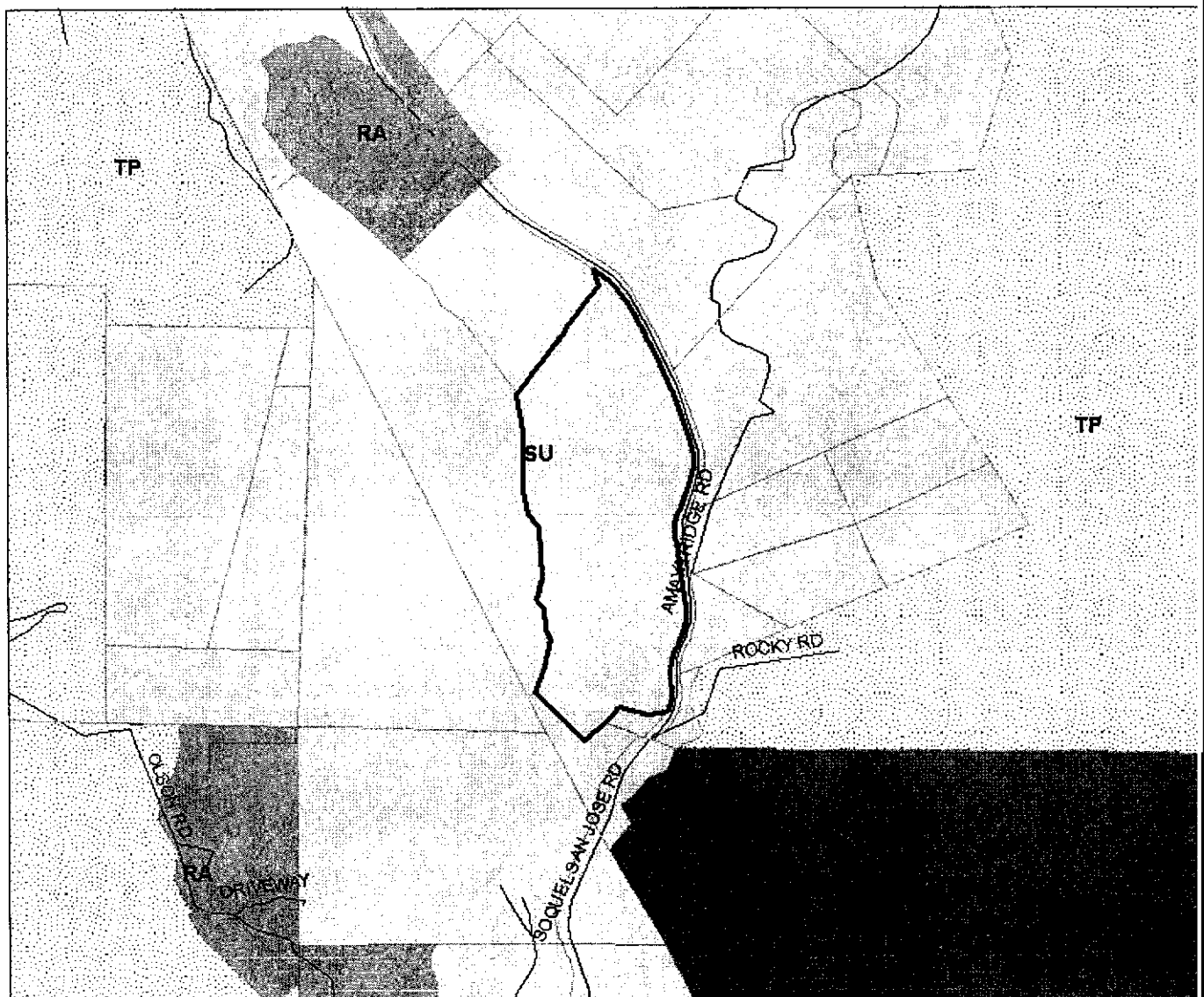
Note - Assessor's Parcel & Block Numbers Shown in Circles.

Electronically submitted 1/15/99 K.S.A.
Rev. 9/2/03 mmw (changed page refs.)
Rev. 8/22/05 MD (pg ref change)
Rev. 8/22/05 MD (Spatial Adjustment)

EXHIBIT B

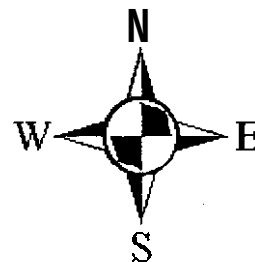


Zoning Map



Legend

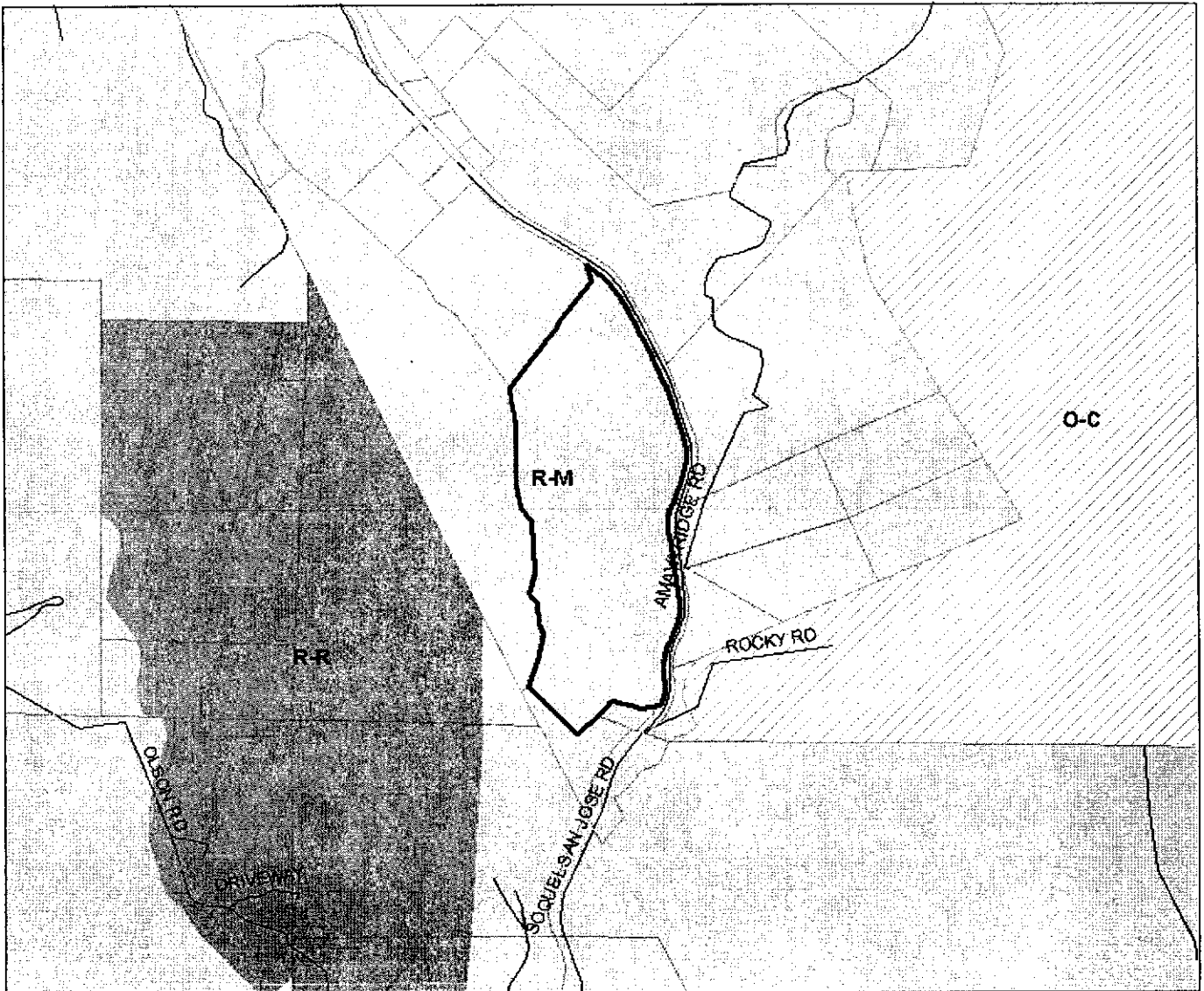
-  07-0173 Subject Parcel
-  Assessors Parcels
-  Streets
-  SPECIAL USE (SU)
-  AGRICULTURE RESIDENTIAL (RA)
-  MINERALEXTRACTION (M)
-  TIMBER PRODUCTION (TP)



Map Created by
County of Santa Cruz
Planning Department
May 2007

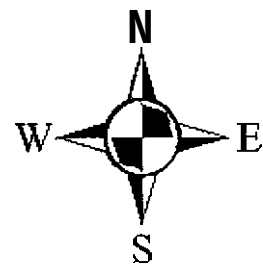


General Plan Designation Map



Legend

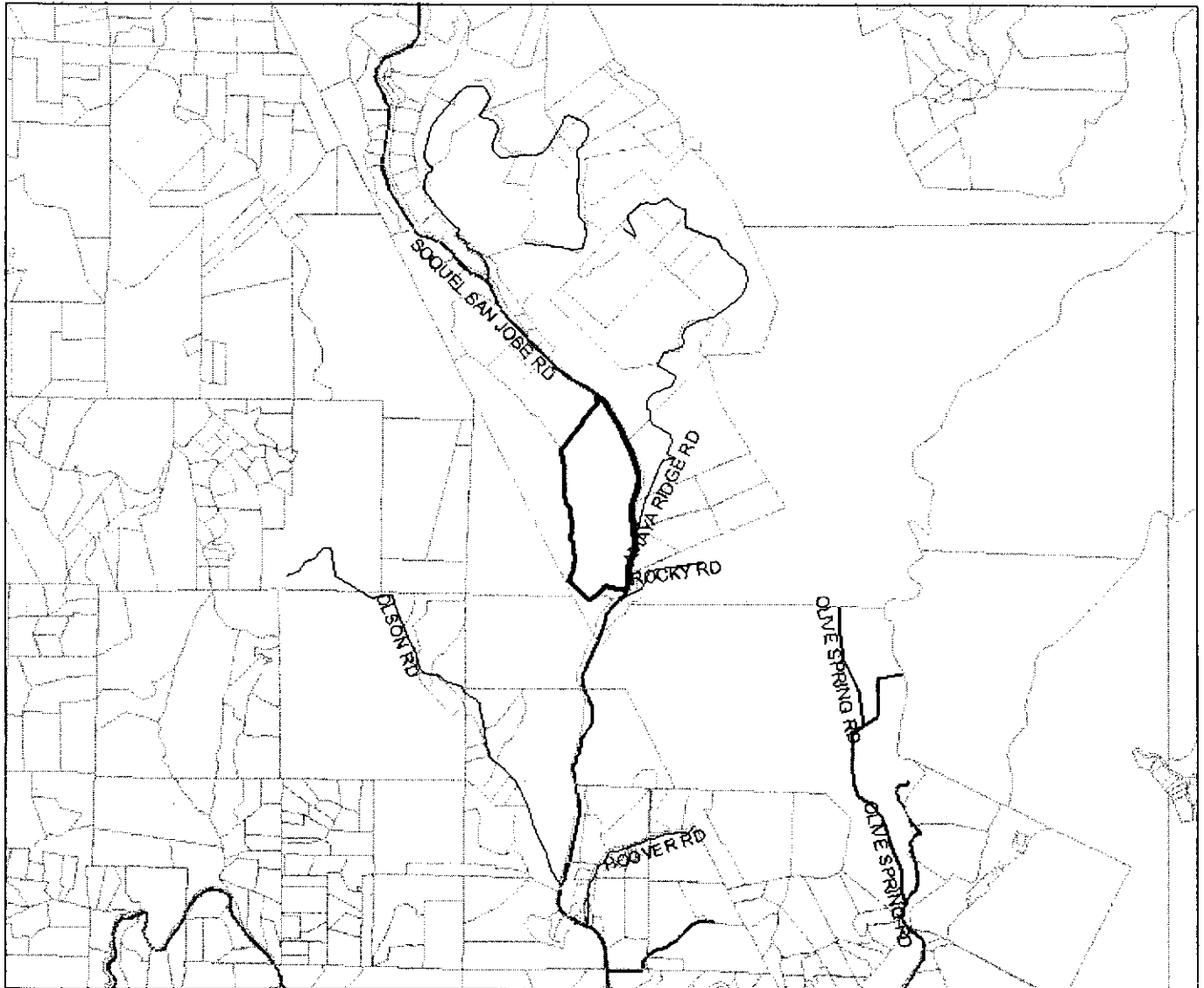
-  07-0173 Subject Parcel
-  Assessors Parcels
-  Streets
-  Residential-Mountain (R-M)
-  Residential-Rural (R-R)
-  Resource Conservation (O-C)



Map Created by
County of Santa Cruz
Planning Department
May 2007

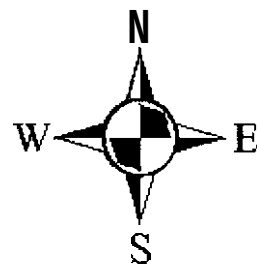


Location Map



Legend

-  07-0173 Subject Parcel
-  Streets
-  Assessors Parcels
-  Major Roads



Map Created by
County of Santa Cruz
Planning Department
May 2007

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: 07-0173

Assessor Parcel Number: 097-251-16

Project Location: Property located on the the west side of Soquel-San Jose Road directly west and across the street from the intersection of Soquel-San Jose Road and Amaya Ridge Road (7107 Soquel-San Jose Road)

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: Roy Webster

Contact Phone Number: (831) 462-6237

- 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: 7/3/07

EXHIBIT D

WEBSTER & ASSOCIATES
2-2590 EAST CUFF DRIVE
SANTA CRUZ, CA 95062
831-462-6237

April 10, 2007

County of Santa Cruz Planning Department
Attn.: Robin Bolster-Grant
701 Ocean Street, 4th Floor
Santa Cruz, CA 95060

RE: TPZ Rezoning of Assessor's Parcel # 097-251-16

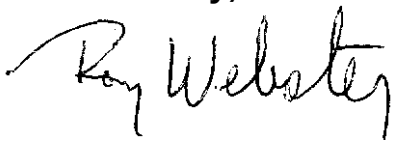
Dear Ms. Bolster-Grant,

This letter requests rezoning Santa Cruz County Assessor's Parcel # 097-251-16 (52 acres) from its current Special Use (SU) designation to the Timber Production Zone. The parcel is owned by Jim Luther and meets the following criteria:

1. The parcel currently meets 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 for the Southern Subdistrict of the Coast Forest District (see Forest Management Plan).
2. The parcel meets the definition of "Timberland" per Section 51104(f) of the Government Code (see FMP).
3. The parcel meets the permitted use requirements per County Code Section 13.10.372.
4. The parcel has been harvested previously under an approved Timber Harvesting Plan (THP) # 1-93-342 SCR (1994).
5. The parcel meets the minimum 5-acre size requirement (52 acres).

Attached in the FMP is an Assessor's Parcel Map.

Sincerely,

A handwritten signature in black ink that reads "Roy Webster". The signature is written in a cursive style with a large, sweeping initial "R" and a long, horizontal tail stroke.

Roy Webster
RPF # 1765

STOCKING ANALYSIS

Background: Government Code Section 51113(c)(3)(A) requires that parcels meet the timber stocking standards set forth in Section 4561 of the Public Resources Code and Section 913.8(a)(1) of the California Code of Regulations (CCR). The timber stocking standards pertaining to CCR Section 913.8(a) are met if the timberland contains an average, minimum post-harvest basal area of at least 75 square feet/acre for Site III land. The requirements of PR C 4561 are less stringent.

Analysis: Field review of the property suggests that the average dominant redwood and Douglas-fir trees on the property exhibit Site III characteristics. Site III characteristics are defined under CCR 1060 as lands capable of growing redwood trees of 135-154 feet in 100 years, and Douglas-fir trees of 134-163 feet. The parcel has been selectively harvested in the past and has demonstrated the ability to sustain periodic harvests while maintaining the minimum basal area requirements cited above.

WOOD FIBER ANALYSIS

Background: Government Code Section 51113(c)(4) requires that parcels zoned timber production must meet the definition of "Timberland" which is defined in Government Code Section 51104(f) as: "Privately owned land, or land acquired for state purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre".

Analysis Field review of the property suggests that the parcel is capable of producing wood fiber in excess of 15 cubic feet/acre/year. Soil productivity analysis confirms this observation. The soil type is the Ben Lomond-Felton complex, which listed in the USDA Soil Survey (1980) as "well-suited to the production of redwood and Douglas-fir", and based on field review, is currently producing approximately 50 cubic feet of wood fiber/acre/year.

COMPATIBLE USE ANALYSIS

The primary land use on the parcel over the last several decades has been commercial timber production with one single family residence. **Only** the County's reinterpretation of what constitutes an "allowable use" on Special Use parcels has brought into question the compatibility of timber production

LANDS OF LUTHER
Santa Cruz County, California

WREST AND LAND MANAGEMENT PLAN

Webster and Associates
Forestry Consultant

A handwritten signature in black ink that reads "Roy Webster". The signature is fluid and cursive, with the first name "Roy" and last name "Webster" clearly distinguishable.

Roy Webster, RPF #1765

April 2, 2007

Landowner

Jim Luther
7107 Old San Jose Rd.
Soquel, Ca. 95073 (408) 353-3922

Property Location

Township 10S.R 1W SEC 11 MDM

APN 097-251-16

General Description/Transportation system

The property contains a total of 50 acres and is located in the Soquel Creek watershed, along Old San Jose road, approximately 6 miles north of Soquel. Hester Creek is adjacent to Old San Jose near the eastern edge of the property which is about one mile above its confluence with Soquel creek. The access to the property is by private driveway directly from old San Jose road. The driveway is shared with one other residence. The owner's residence is located on the property. There is one other permitted encroachment onto San Jose road near the southern end of the property. Elevations range from 450 feet along Hester Creek at the eastern boundary of the property, to 900 feet on the ridge on the western side.

The forest on the property consists primarily of moderately stocked second growth redwood with some Douglas fir and associated tan oak and madrone. There are some very small remnant brush patches at the upper end of the ridge. Undergrowth species are typical of the Santa Cruz Mountains. The owner's home and garage are at the northern end of the property and are the only developed structures on the parcel.

The property was previously harvested in 1994 (THP# 1-93-342 SCR). Existing access roads and encroachments were used for log hauling. The driveway to the house, which is paved and rocked, was the primary route for log hauling. Preexisting skidtrails were re-constructed and stabilized for use in the harvest. These improvements have remained stable.

Land Use History

The property appears to have been clear cut in the early 1900's as would be typical of most of the Soquel Creek watershed. A well stocked second growth redwood forest replaced the clear cut area. The property appears to have been selectively logged again in the 1940's or 50's however no records of this exist. Mr. Luther purchased the property in 1978. He built a residence on the property in 1984. As noted above a successful timber harvest was conducted in 1994. This harvest appears to have removed about 40% of the available volume at the time. The owner is not aware of the history of the property prior to his assuming ownership.

Other than timber production, current land use is for the owner's residence. No additional proposed uses are planned.

Management Objectives

The purpose of the owner's property management is to achieve an economic return from the property and to maintain the growth and overall health of the forest for long term timber production, and for reduction of fire hazard. The owner seeks to rezone the property to **limber Production** in order to facilitate this objective.

The owner's overall objective is to make management a self-sufficient enterprise from a cost standpoint, while preserving the outstanding natural values of the property. All future activities will recognize the sensitive nature of the watershed and biotic diversity on the property. Future management objectives will continue to develop the timber stand into an un-even aged character promoting growth and regeneration of timberland species while preserving the natural character of the property. Maintenance of existing improvements (roads, trails, clearings) will be given a high priority both to preserve their beneficial use and reduce impacts from their use. Preservation of biotic diversity on the property is an ongoing goal of management.

Resources

Soils

According to the Soil Survey of Santa Cruz County, the property is underlain by the Ben Lomond-Felton complex soils, which have sandy loam surface soils, and which are moderately deep and well drained.. This soil is well suited to timber production. Erosion hazard is high for most of the area, and is extreme on the steepest slopes. The site is generally stable. Larger slides that were observed were a result of natural causes. The landowner states that numerous slides occurred during the heavy rains of 1982 and 1986. The slopes on the property are fairly steep, ranging from 50-80%. A large debris slide exists near the northern property boundary and a fairly significant slide is present within the class 3 watercourse in the middle of the property. Other slides are smaller and possibly related to natural drainage changes on the steep slopes. Slides on the eastern edge of the property appear to have been caused by large cutbanks installed when constructing old San Jose road.

Watershed

There are several Class 3 watercourses on the property. These drain directly to Hester Creek which is a tributary of Soquel Creek. The following is a description of Hester creek from the Soquel Creek Storm Damage Recovery Plan:

Hester Creek is the most severely impacted stream in the Soquel Watershed, getting a very poor rating. Numerous large, naturally caused debris flows moved a tremendous number of logs from forested slopes into the channel creating numerous logjams. In some areas debris flows are continuous for hundreds of feet of stream length. Hester Creek flows through the Zayante Fault Zone in sheared Purisima Formation sandstone and granite. Most hillsides adjacent to the stream are convex with gradients exceeding 75 percent. Most reaches are choked with fine sediment and debris. Old San Jose Road runs above the west side of the stream, often releasing runoff on unstable areas. In one mile of stream, 34 separate debris flows were noted, 19 of which were found to be major. Thirteen of these occurred on road cuts....

Watercourses on the property as observed in the course of preparation of this plan appear to have been somewhat stabilized. The slash mulching and other mitigations put in place after the last harvest have been largely successful in reducing erosion from the trails on the property.

Cultural

No cultural **or** archaeological resources were discovered during the timber survey for this plan. A previous survey was conducted during the preparation of the Timber Harvest Plan and **no** archaeological resources were discovered. **Due** to **the** diverse nature of historic and pre-historic sites it can **be** presumed that some discoveries of historic artifacts might be made in the future. If these are found during any future management activity they should be preserved and the proper records of their discovery should be **filed**.

Wildlife

Relatively high residential density and **impact** make this area less attractive as permanent habitat for many species however the presence of abundant water contributes to frequent use during some seasons of the **year**. **Animals** typical of the Santa Cruz Mountains frequent the area including deer, **bobcat**, squirrels, **raccoon**, and feral pig. The area would **fit** with the classification of **4D** in **the** wildlife habitat relationship classification system. This type has a high cover percentage and smaller tree sizes. Forest management directed at opening the **canopy** will improve forage and variety for small and large mammals as well as increase raptor use.

Large raptors may use the **property** for roosting and nesting with tall, dead topped conifers being particularly attractive. **These** will be preserved wherever feasible to promote this **use**.

The **watercourses** on the property do supply habitat for forage species available to the developing fishery in **Soquel** Creek. A major objective of the owners should be to preserve the quality of the water and stream bed characteristics.

Rare, Threatened and Endangered Species.

The area has been reviewed for the presence of rare **or** endangered species **by** examining the Natural Diversity Database maps and biotic **resource** maps **as** well as **reviewing** the County General Plan for species **of** special concern. No source consulted indicated any plant **species of** concern to be found on the property.

Coho salmon and Steelhead trout have been known to occur in Hester Creek and Soquel Creek. The property is within the range of the red-legged frog and some suitable habitat exists however no sightings have been made.

There is no known marbled murrelet use of the area and no on-site or nearby suitable habitat **has** been observed. The age and form class of the existing timber stand **does** not present suitable nesting habitat as described for this species.

Ancient Trees

A few remnant old growth redwood and Douglas firs remain from the turn ~~of the~~ century logging. These will be retained in perpetuity.

Recreation

Management activities will ~~be~~ designed to provide and maintain habitat diversity. Selective harvesting will be employed to preserve the aesthetics of the existing timber stand.

Timber

The stand, in general, has two ~~age~~ classes, one age class of approximately 90 to 100 years old, and a second age class of 40 to 50 years old, a result of stump sprouts from the harvest in the ~~40's~~ or 50s. Sprouting from the last harvest is minimal due to the light amount of overstory removal. Downed, woody debris is minimal due to the fact that the owner ~~uses~~ downed trees for firewood. There are very few snags on the property. Some evidence of the effects of Sudden Oak Death on ~~Tanoak~~ trees was observed and this should ~~be~~ monitored.

Timber Inventory Results

The existing timber stand on the property is dominated by ~~Coast~~ Redwood, with intermixed Douglas fir, tan oak, and madrone. ~~As~~ is typical for the area, the distribution of conifers and hardwoods is predicated by a range of micro-site factors. ~~This~~ results in a stand, ranging from fast-growing, redwood dominated ~~pockets~~, to more slower growing areas stocked primarily with hardwood.

The propettywas first harvested over 100 years ago. ~~This~~ harvest was typical for the period, with evidence of clear cutting and burning remaining today. Stumps that survived the early harvest show the ~~potential~~ for growth of large diameter trees on most of the property. Post harvest management probably included livestock grazing until the area eventually revegetated with brush and trees. The resulting timber stand is even-aged, despite a large variation in diameter, and reflects a long period of suppressed growth. Some of the drier areas have regrown with a predominance of hardwoods. There is very little fire scarring in the existing stand.

I n April, 2007, a cruise consisting of 1/5 acre plots was conducted to better assess stand conditions and growth. The specific plot measurements and tabled results are presented in the Appendix. However the trends will be discussed ~~below~~.

Measured heights of typical second growth trees varied from 130' to 155', with estimated site class of Site 3. Estimated conifer volumes from these plots would predict an average standing board foot volume of 15,000 per acre. ~~By use~~ of limited increment boring and a stand table projection stand growth is estimated

to be roughly 2% or 300 board feet per acre per year. Increased growth potential due to the reduction of competition from selective harvest and management is expected to be 3.0% per year.

Timber Stand Summary (all conifers)

Trees Per Acre by Diameter Class

6-10"	12-16"	18-24"	26-34"	36+"	Total
19	13	18	6	1	57

BF Volume Per Acre by Diameter Class

6-10"	12-16"	18-24"	26-34"	36+"	Total
143	623	4588	3917	1291	10569

Management Practices

Roads and trails

The existing road system of roads and skid trails on the property is mostly stable. The primary access road that enters the property from Old San Jose Road is paved and rocked and drainage appears to be adequate. Post harvest erosion control practices on the skidtrails has preserved their surfaces and drainage appears to be adequately handled.

Erosion Hazards and management

Soil erosion hazards on the property vary from high to very high based on slope as mentioned above in the soils description. The roads and skid trail system installed for the timber harvest and management have remained largely stable. There is a high potential for additional sliding within the property due to steep slopes. The skid trails and landings on the property should continue to be monitored for adequacy of drainage, and to prevent ponding of water.

Fire Protection

The property is located in a fairly narrow canyon. No major accumulations of flashy fuels are evident. There is little herbaceous development in the understory. There is little dead and downed woody fuel.

The major threat to the property from a fire protection standpoint appears to be the possibility of fire spreading into the property from Old San Jose road or a residential escape to the wildland. There is also the possibility of ignitions due to trespass. The trespass issue can be handled by limiting access. The owner resides on the property and limits public trespass. Overhanging vegetation should be cleared periodically to make access for this equipment easier on the primary access road to the residences. A minimum 30' clearing should be maintained around any structures to provide protection from wildfires.

Special treatment areas along Old San Jose road and around structures in which slash will be lopped to 12" will greatly reduce fire hazards. Strict adherence to Forest Practice Rules regarding slash lopping and fire hazard reduction should mitigate the fire risk of future harvesting activities to acceptable levels.

Recreation and aesthetics

No major recreational enhancements of the property are planned. The visual aesthetics of the property will be preserved through careful timber stand management. Occasional use of existing road and trail system is anticipated for hiking. No significant impact to the management of the property is foreseen for this use.

Wildlife

Management practices on the property should be directed at maintaining and enhancing wildlife diversity, while minimizing its impact on other uses. Existing roost trees will be preserved and nest trees will be protected when found. Reliance on natural predators will increase the presence of large mammals and raptors on the property in the short term. An uneven aged timber stand will likewise provide habitat for a wider range of species. Control of browsers and rodents may become necessary if they are found to impact stand regeneration, however this conflict is not anticipated.

Snags and Downed wood

There were a minimal number of snags observed during the timber inventory. Although often seen as a useless part of the landscape and a fire hazard, snags provide important habitat for numerous wild species. Future management schemes should seek to preserve several prominent snags per acre to promote diversity. As mentioned previously the Forest Practice rules require special attention to slash lopping and treatment to reduce fire hazard. Large trees which overhang the watercourse will be left to provide future recruitment of large woody debris within the stream.

Timber management

Harvest

The timber stand on this property has successfully regrown from the clearcut logging prior to the turn of the century. There have been two harvests that have begun the transition from even-aged to an uneven-aged forest as envisioned under the selection silvicultural system. An even-aged upper canopy is too dense to permit healthy growth of trees of all sizes. The increased light and growing space that is provided by removal of harvested trees will increase the growth of residual trees and initiate sprouting of a new generation of trees. Annual growth increases from 2 to 3.5% are expected. Past harvests have relied completely upon tractor yarding, and as the roads and trails are laid out and stable, it is anticipated that this will be the preferred harvest method for the property in the future.

Future selective harvesting to promote an uneven-aged pattern of stocking and growth is expected to occur on a roughly fifteen year cycle. These harvests will be timed to take advantage of market conditions and will be designed to promote a balance of tree size classes throughout the stand. Charts are provided in the Appendix which compare projected stand curves to normalized stand diameter distributions for two densities of leave stands (Q-Factor 1.2 curves for leave stand BA of 75 and 100sq.ft. per acre). Based on this analysis future harvests should be directed at trees in the 22-26 and 30-32" classes to achieve the optimal uneven-aged size class distribution. Where beneficial, group selection will be used as a cutting practice to allow increased light into suppressed understory, or to create large enough openings to facilitate tree

planting. Due to the complete overstory occupation, and limited light in the understory, there is minimal recruitment and light reaching the smaller trees. The stand comparator tables also show a lack of smaller tree diameters in the stand. Group selection and harvesting dominant slow growing trees will help to alleviate this condition.

limber Stand Improvement

Intermediate treatments to foster the health and growth of the stand will include sprout thinning and selected hardwood removal. Multiple sprouts resulting from harvesting will be thinned to an average of 2 to 3 healthy sprouts per stump. This practice will be conducted immediately after harvest. This removal of competition will produce healthier and more vigorous young trees in the understory. During this thinning, dead and unhealthy **small** trees and sprouts will also be removed to reduce fire hazard and competition. This should be done to further improve spacing and promote the health of remaining trees. The objective will be to achieve a fully **stocked** stand with an average spacing of 10 to **14** feet between trees. All thinnings will be removed **or lopped** to within 20" of the ground.

Additional release can be achieved by **hardwood** removal where needed and practical. This is particularly important for this property due to current abundant hardwood growth on the **property**. During the survey a few tanoaks were observed that are experiencing the dieback (Sudden Oak Death) which is prevalent throughout Santa Cruz County at this **time**. These trees should be removed as **soon** as possible for they are clearly harboring other insects which will continue to affect the hardwood stand. This activity will be **non-commercial** however it **could be** combined with a timber harvest if such a plan is initiated in the near future. Removal of the affected **tanoaks** would **be** beneficial both to reduce the ongoing infestation and to allow **light** into the understory and **remove competition** from regrowing conifers. Resulting hardwood stump sprouts will provide important deer browse. Hardwood removals will take place during timber harvest in both management units where feasible.

Tree planting

Post harvest management calls for planting of conifer seedlings within one year. This should be a mix of coast **redwood** and Douglas fir. The redwood should **be** 2-0 stock (or 1-0 redwood inoculated with **mycorrhizae**) and **Douglas fir** should be either 1-0 or 2-0. Seed sources should **be** selected to match the **seed** zone as closely as possible. Plantings should be limited to those areas that have been opened sufficiently to allow for a reasonable chance of establishment and growth. Coast redwood should be planted in only the most moist **sites** while **the plantings** closer to the ridges should **lean** to Douglas fir to take advantage of its **higher** growth rate on the drier areas. Trees will **be** planted on an approximate 8' spacing (430 per acre). Browse protection may be necessary due to the large deer population and, although it will increase the **cost** of **the practice**, it is likely to increase the chances of seedling survival. This need should be evaluated prior to planting. A "clean and release" around established seedlings should be conducted by hand within the first three years **after** planting.

References

U.S.D.A. Soil Conservation **Service**, Soil Survey
Santa Cruz County, 1979.

California Natural Diversity Data **Base** (Maps and listings)

Arvola, T.F. 1978. California Forestry Handbook. State of California, Dept of Forestry. 232. pp.

Cooper, Clark, and Associates. Preliminary Map of Landslide Deposits in Santa Cruz County.

Santa Cruz County Biotic Resource Maps.

Appendix

MAPS

Plot Data

Stand Table

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Appendix

MAPS

Plot Data

Stand Table

Stand Table Projection

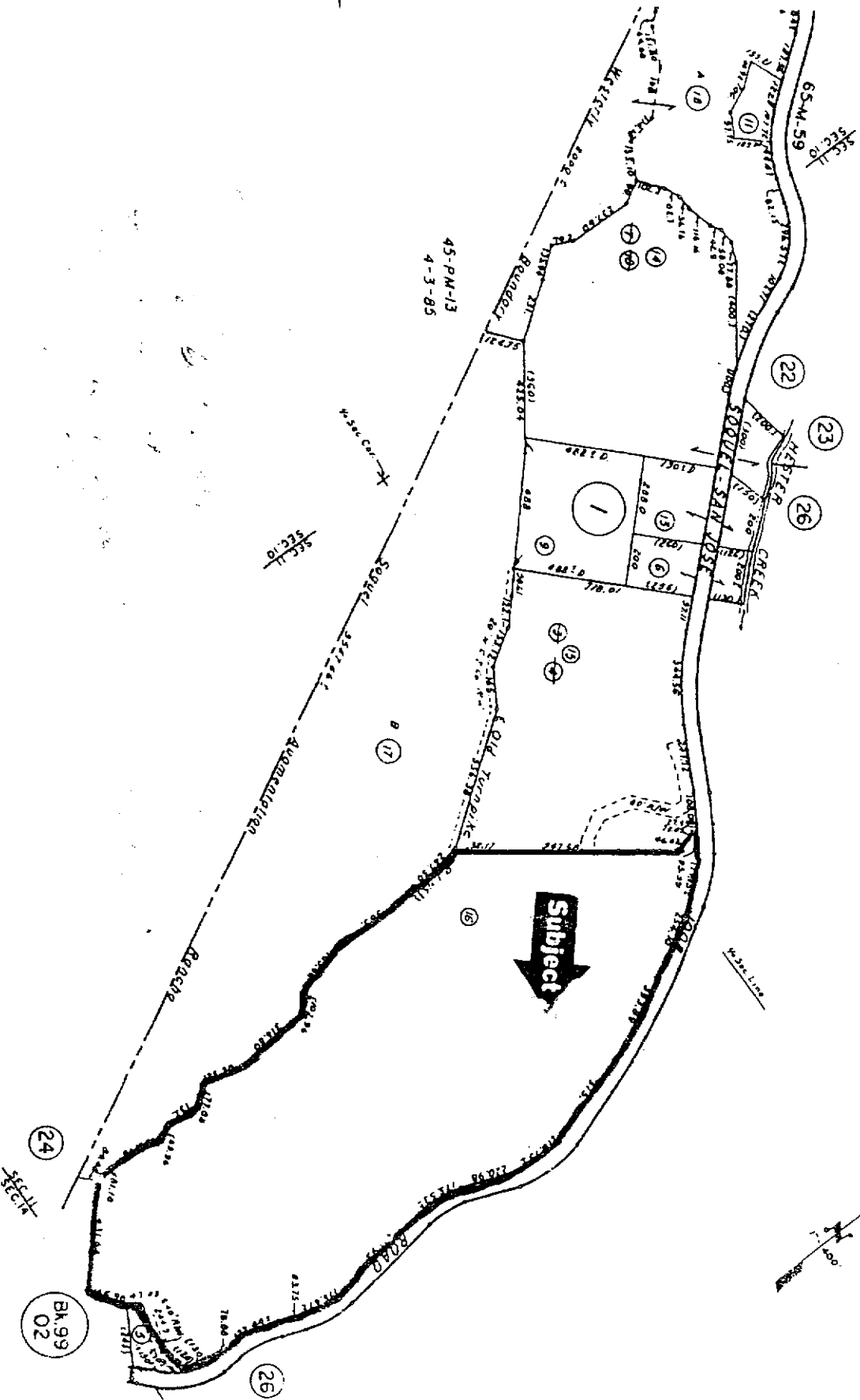
Stand Comparator Table

ONLY

SOQUEL AUGMENTATION RANCHO
FOR SECS. 3, 10 & 11, T. 10 S., R. 1 W., M. D. B. & M., PROJECTED

Tax Area Code
79-000

97-25

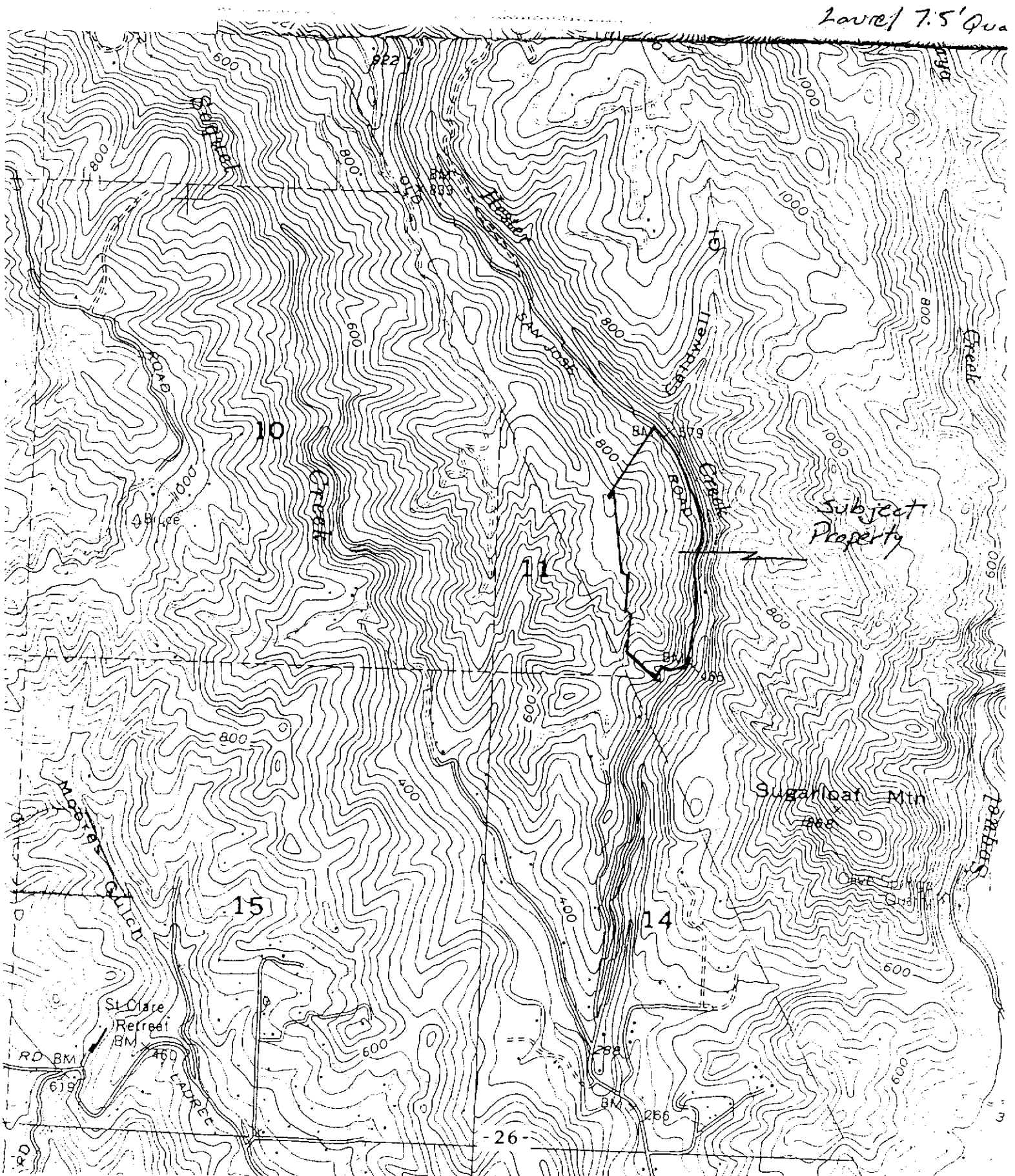


Note-Assessor's Parcel Block B
Lot Numbers Shown in Circles

Assessor's Map No. 97-25
County of Santa Cruz, Calif.
April, 1953

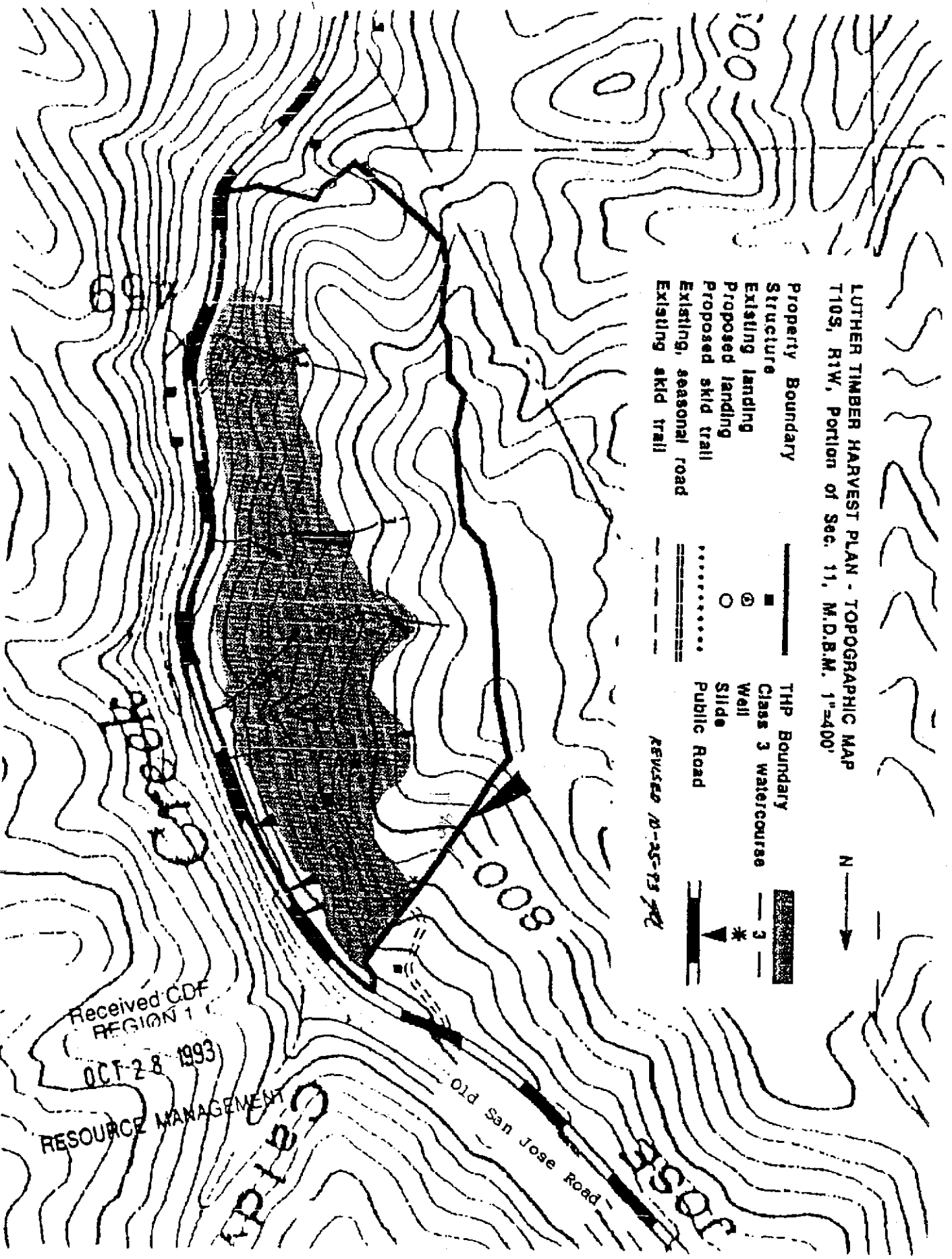
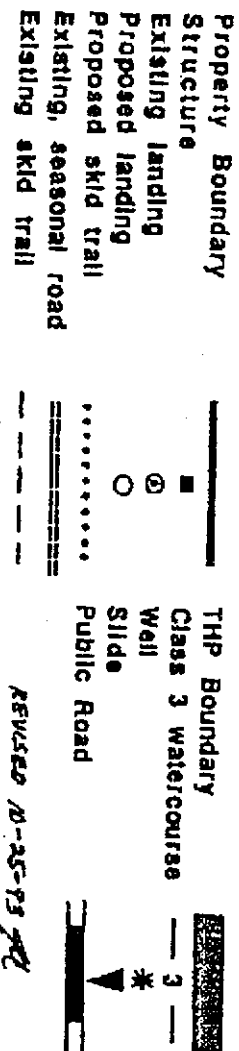
LUTHER REZONING Application
LOCATION MAP
APN # 097-251-16

Laurel 7.5' Qua



LUTHER TIMBER HARVEST PLAN - TOPOGRAPHIC MAP
T10S, R1W, Portion of Sec. 11, M.D.B.M. 1"=400'

N
→



PLOT DATA

LANDS OF Luther
CRUISE DATA 1/5 AC PLOTS

DBH CLASS SUMMARY
TOTAL PLOTS 10, 1/5 AC PLTS
TOTAL ACRES SAMPLED = 2

Plot Data		DBH BY SPECIES							
Plot #	RW	DF	TO	MAD	DBH	RW	DF	TO	
1						6	17	1	14
		22		8	12	8	12	1	24
		14		26	16	10	7	0	14
		14		6		12	11	1	19
		6		6		14	10	1	8
		8		12		16	2	1	5
		16		12		18	4	1	3
		24		14		20	6	0	3
		24				22	10	0	2
		24				24	13	2	0
		30				26	2	0	1
		30				28	3	1	1
		14				30	3	1	0
		26				32	1	0	0
		18				34	1	0	0
		26				36	1	1	0
		6				38	0	0	0
		28				40	0	0	0
		6				42	0	0	0
		12				44	0	0	0
	2	22		12		46	0	0	0
		24		14		48	0	0	0
		8		8		50		0	0
		6		12		52		0	0
		20		14		54		0	0
		22		16		56	0	0	0
		6		20		58	0	0	0
		20		6		60	0	0	0
3		22		18			103	11	94
		24		12					
				8					
				22					
				12					
				12					
				0					
				8					
				16					
				8					
				8					
				8					
				10					
4	22		8	20					
	10		36	18	23				

PLOT DATA

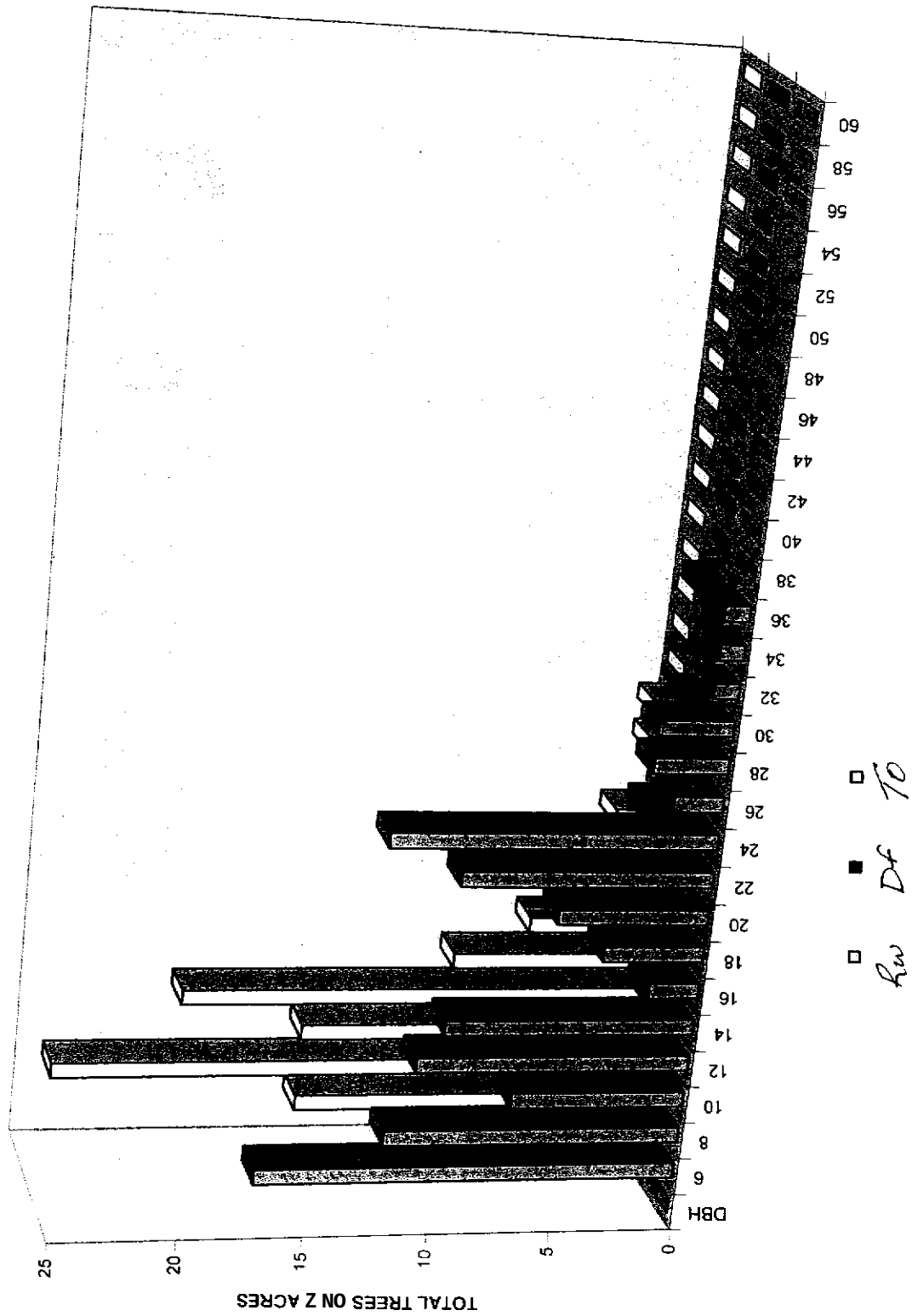
	16		22	27
	24		12	
	14		14	
	6		6	
	10		6	
	24		12	
	18		10	16
			8	
			12	
			28	
5	24		8	
	6		12	
	12		16	
	6		8	
	24		8	
	24		10	
	20		6	
	6			
	6			
	10			
	10			
	8			
6	24	18	10	
	19	30	6	
	12		12	
	20		10	
	28		12	
	34		10	
	14		12	
	6		11	
	22		7	
			6	
7	8		18	
	12		16	
	14		15	
	22		14	
	30		12	
	32		8	
			13	
			11	
			8	
8	20	6	6	
	22		6	
	14		6	
	16		6	
	12			
	10			
	22			
	36			
	6			
	14			
	24			

PLOT DATA

	6			
	6			
	8			
	11			
	12			
	22			
	6			
	28			
	8			
	9			
	12			
9	12		6	12
	10		10	
	18		10	
	8		8	
	10		12	
	22		6	
	8		6	
	8		8	
	6		12	
	24		12	
	8		8	
	12		10	
	14		6	
			8	
			6	
			19	
			8	
			10	
10	12	28	8	
	8	12	10	
	6	16	12	
	14	23	8	
	7	13	8	
		24	10	
			10	
			8	
			12	
			9	
			10	
Total tree	105	11	98	6

Luther Fmp

CURRENT STAND TABLE



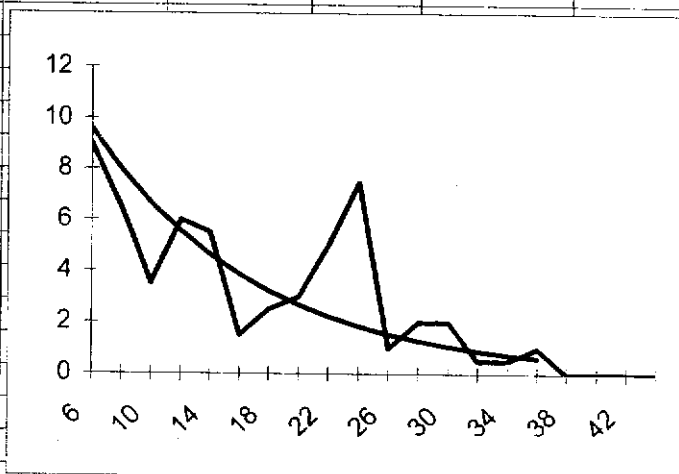
STAND TABLE PROJECTION

Local vol. e 0003 Dv3.35

DBH Class (in.)	10 yr Radial Increment (in.)	Ratio (m)	Current Trees per acre	Volume per Tree BDFt	0	1	2	3	Future Trees per acre	Current Stock Table (Bdf./ac)	Future Stock Table (Bdf./ac)	Volume Growth (Bdf.)
6	1.3	0.65	9.00	3.19	3.1E	5.81	0.90	3.00	3.15	28.75	10.06	-18.69
8	1.3	0.65	6.50	8.37	2.2E	4.2E	0.90	6E	8.13	54.44	68.05	13.61
10	1.3	0.65	3.50	17.69	1.2E	2.2E	0.90	2E	5.45	61.90	96.39	34.49
12	1.3	0.65	6.00	32.57	2.1E	3.9E	0.90	6E	4.38	195.45	142.52	-52.93
14	1.3	0.65	5.50	54.60	1.9E	3.5E	0.90	5E	5.83	300.27	318.02	17.74
16	1.0	0.50	1.50	85.39	0.7E	0.7E	0.90	1E	4.33	128.09	369.33	241.24
18	1.0	0.50	2.50	126.70	1.2E	1.2E	0.90	2E	2.00	316.76	253.41	-63.35
20	1.0	0.50	3.00	180.33	1.5E	1.5E	0.90	3E	2.75	541.00	495.92	-45.08
22	1.0	0.50	5.00	248.17	2.5E	2.5E	0.90	5E	4.00	1240.83	992.67	-248.17
24	1.0	0.50	7.50	332.15	3.7E	3.7E	0.90	7E	6.25	2491.13	2075.94	-415.19
26	0.8	0.40	1.00	434.30	0.6E	0.4E	0.90	1E	4.35	434.30	1889.20	1454.90
28	0.8	0.40	2.00	556.68	1.2E	0.8E	0.90	2E	1.60	1113.36	890.69	-222.67
30	0.8	0.40	2.00	701.43	1.2E	0.8E	0.90	2E	2.00	1402.86	1402.86	0.00
32	0.8	0.40	0.50	870.72	0.3E	0.2E	0.90	0E	1.10	435.36	957.79	522.43
34	1.2	0.60	0.50	1066.80	0.2E	0.3E	0.90	0E	0.40	533.40	426.72	-106.68
36	1.2	0.60	1.00	1291.93	0.4E	0.6E	0.90	1E	0.70	1291.93	904.35	-387.58
38	1.2	0.60	0.00	1548.47	0.0E	0.0E	0.90	0E	0.60	0.00	0.00	0.00
40	1.3	0.65	0.00	1838.77	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
42	1.3	0.65	0.00	2165.27	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
44	1.3	0.65	0.00	2530.43	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
46	1.3	0.65	0.00	2936.74	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
48	1.5	0.75	0.00	3386.77	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
50	1.5	0.75	0.00	3883.08	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
52	1.5	0.75	0.00	4428.31	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
54	1.5	0.75	0.00	5025.12	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
56	1.5	0.75	0.00	5676.19	0.0E	0.0E	0.90	0E	0.00	0.00	0.00	0.00
Total			57.0					57	0.00	10569.84	12222.98	1653.15 = Volume

Luther-MP tree inventory

	A	B	C	D	E	F	G	H	I
1	Uneven-Age Stand Comparator								
2	Target Residual BA=	75	Min. Hrvt Vol=		8000bf				
3	Maximum DBH=	36	Min. Merch. DBH=		18"				
4	q-factor=	1.2							
5									
6									
7	DBH	"--- Current-TPA ---"			Harvest TPA				
8	Class	Redwood	Douglas-fir	Total	Target-TPA	RW	DF	Current-BF	Harvest-BF
9	6	9.00		9	9.5939			28.75	0.00
10	8	6.50	0	6.5	7.9949166			54.44	0.00
11	10	3.50	0	3.5	6.6624305			61.90	0.00
12	12	6.00		6	5.5520255			195.45	0.00
13	14	5.50	0	5.5	4.6266879			300.27	0.00
14	16	1.50		1.5	3.8555732			128.09	0.00
15	18	2.50		2.5	3.2129777	0		316.76	0.00
16	20	3.00		3	2.6774814	0.32252		541.00	94.65
17	22	5.00		5	2.2312345	2.76877		1240.83	1049.30
18	24	7.50		7.5	1.8593621	5.64064		2491.13	2699.73
19	26	1.00		1	1.5494684	0		434.30	0.00
20	28	2.00		2	1.2912237	0.70878		1113.36	512.98
21	30	2.00		2	1.0760197	0.92398		1402.86	804.71
22	32	0.50		0.5	0.8966831	0		435.36	0.00
23	34	0.50		0.5	0.7472359	0		533.40	0.00
24	36	1.00		1	0.6226966	0.3773		1291.93	535.91
25	38	0.00		0				0.00	0.00
26	40	0.00		0				0.00	0.00
27	42	0.00		0	0.6226966			0.00	0.00
28	44	0.00	0	0				0.00	0.00
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									



Luther-MP tree inventory

	A	B	C	D	E	F	G	H	I
1	Uneven-Age Stand Comparator								
2	Target Residual BA=	100		Min. Hrvt Vol=	8000bf				
3	Maximum DBH=	36		Min. Merch. DBH=	18"				
4	q-factor=	1.2							
5									
6									
7	DBH	"--- Current-TPA ---"			Harvest TPA				
8	Class	Redwood	Douglas-fir	Total	Target-TPA	RW	DF	Current-BF	Harvest-BF
9	6	9.00		9	12.791867			28.75	0.00
10	8	6.50	0	6.5	10.659889			54.44	0.00
11	10	3.50	0	3.5	8.8832407			61.90	0.00
12	12	6.00		6	7.4027006			195.45	0.00
13	14	5.50	0	5.5	6.1689172			300.27	0.00
14	16	1.50		1.5	5.1407643	0		128.09	0.00
15	18	2.50		2.5	4.2839703	0		316.76	0.00
16	20	3.00		3	3.5699752	0		541.00	0.00
17	22	5.00		5	2.9749793	2.02502		1240.83	767.44
18	24	7.50		7.5	2.4791495	5.02085		2491.13	2403.08
19	26	1.00		1	2.0659579	0		434.30	0.00
20	28	2.00		2	1.7216316	0.27837		1113.36	201.47
21	30	2.00		2	1.434693	0.56531		1402.86	492.34
22	32	0.50		0.5	1.1955775	0		435.36	0.00
23	34	0.50		0.5	0.9963146	0		533.40	0.00
24	36	1.00		1	0.8302621	0.16974		1291.93	241.09
25	38	0.00		0				0.00	0.00
26	40	0.00		0				0.00	0.00
27	42	0.00		0				0.00	0.00
28	44	0.00	0	0				0.00	0.00
29	Yield=								4105 bf/ac
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
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46									

