March 1997

Supplement to Marginal Lands Information Sheet

BOARD OF COUNTY COMMISSIONERS DIRECTION REGARDING THE INTERPRETATION AND ADMINISTRATION OF MARGINAL LANDS APPLICATIONS

On February 26, 1997, the Lane County Board of Commissioners reviewed the state Marginal Lands law and developed responses to seven issues in the law needing clarification for purposes of administration by Lane County. Those issues are identified below, followed by the direction provided by the Board. Any application for the Marginal Land designation within the Lane County Rural Comprehensive Plan's jurisdiction must be in compliance with the Board's directions. Refer to the Marginal Lands Information Sheet, or to Oregon Revised Statutes 197.247 (1991 laws), for an explanation of the law itself.

ISSUE 1: What is the Marginal Lands concept?

Board's Direction:
The Board recognized that marginal land is intended to be a sub-set of resource land, *i.e.*, there are "prime" resource lands and "marginal" resource lands. The marginal lands are to be available for occupancy and use as smaller tracts than are required in the better resource lands. The criteria in the law define which lands may be designated as marginal. Evidence for this position is found in the legislative history and the fact that marginal lands are recognized in both Statewide Goal 3 - Agricultural Lands and Goal 4 - Forest Lands.

ISSUE 2: Definition of "Management".

When considering forest land, the entire growth cycle must be considered for evidence of management. This is because even the best managed forest operations may have nothing occurring on the land during the five-year window (1978 - 1982) stated in the marginal lands statute (ORS 197.247(1)(a)(1991 Edition). For farm operations, however, it is hard to conceive of an operating farm on which nothing occurred for five years.

Board's Direction :
No evidence of human activity on the land is required for forest land to be "managed". The conscious decision not to convert the land to another use is enough evidence of management to meet the statutory intent, provided there is a significant amount of merchantable or potentially merchantable trees on the property. Likewise, evidence of timber harvest since 1978 would suffice to show management even if there were no trees currently on the property. For farm land, no evidence of farm use during the 5-year statutory window would indicate that land was not managed for farm use.

ISSUE 3. Managed "as part of" a (farm or forest) operation during (1978-1982).

Does this phrase in ORS 197.247(1)(a)(1991) mean, for example, that if a large timber company owned and managed a 2000 acre tract during the five-year window, and then sold someone a 40 acre portion of non-forest land in 1985, that 40 acres would not be eligible for Marginal Lands designation?

Board's Direction :
The Board found that the law creates a general presumption that all contiguous land owned during 1978-82 was part of the owner's "operation". That presumption could be rebutted, however, by substantial evidence

that the parcel in question was not, in fact, a "contributing part" of the operation. The applicant would bear the burden of producing such evidence.

ISSUE 4: What price data should be used to calculate gross annual income for forest lands?

Board's Direction :

The legislative intent of the "management and income test" of the Marginal Lands Law was to identify those lands which were not, at the time the Marginal Lands law was enacted (1983), making a "significant contribution" to commercial forestry. Therefore, it is appropriate and statistically valid to use the following methodology:

1. Based on the best information available regarding soils, topography, etc., determine the optimal level of timber production for the tract assuming reasonable management.
2. Assume that the stand was, in 1983, fully mature and ready for harvest.
3. Using the volumes calculated in step (1), and 1983 prices, calculate the average gross annual income over the growth cycle.

ISSUE 5: What "growth cycle" should be used to calculate gross annual income?

Board's Direction :

The consensus of the Board was that a 50-year growth cycle should be adopted as the usual standard, with the option that another standard could be used if substantiated by compelling scientific evidence presented by the applicant. The Board's choice was based on evidence that the USDA Natural Resource Conservation Service has adopted the 50-year cycle for rating soil productivity, plus the administrative ease of having a standardized figure.

ISSUE 6: Weight of evidence.

One of the main holdings of the Ericsson case, which arose in Lane County, is that on-site evaluation by a qualified expert is weightier evidence than published data. Given this ruling, what is the appropriate role of the parcelization table in Lane Code 16.211(10)(b) and the legislative findings for Goal 4 of the Rural Comprehensive Plan as an income standard?

Board's Direction :

As a matter of administrative ease, and in the absence of other substantial evidence, the parcelization test could still be used. It is one method of identifying the acreage required of a given forest capability classification to achieve the $10,000 income standard.

ISSUE 7: Ambiguities in the parcelization tests of ORS 197.247(1)(b)(A) & (B).

Is the parcelization test measuring the percent of an area (acreage) or the percent of the number of parcels a "parcel count"? If the test in ORS 197.247(1)(b)(A) is an area test, does the percentage requirement apply to the acreage or to the number of parcels that lie wholly or partly within the 1/4 mile of the subject tract?

Board's Direction :

Regard the tests in ORS 197.247(1)(b)(A) & (B) as "area" tests with the difference being that (A) specifies an area including the subject parcel and land within 1/4 mile and uses a 50% small lot test, whereas (B) increases the area to a minimum of 240 acres but raises the small lot test to 60%.

(Note: This is the position adopted by Lane County in the Jackson case. In that case, Lane County ruled that the area was limited to the 1/4-mile line, whereas DLCD argued that the area line should expand to include the entirety of any parcel partly located within the 1/4 mile boundary. DLCD threatened to appeal the Jackson case on that basis, but did not do so.)

INFORMATION SHEET

REQUIREMENTS FOR MARGINAL LAND DESIGNATION AND ZONING

In response to state legislation, Lane County has adopted a Marginal Lands Plan designation and zoning district, both of which are to be applied on a case-by-case basis. This Information Sheet explains the requirements of the designation/zone, and what must be supplied to the County in order to justify an application.

Adopted policies concerning the state Agricultural Lands Goal (Goal 3) and Forest Lands Goal (Goal 4) state as follows:

> *(Agricultural)(Forest) lands that satisfy the requirements of ORS 197.247 may be designated as Marginal Lands and such designations shall also be made in accordance with other Plan policies. Uses and land divisions allowed on Marginal Lands shall be those allowed by ORS 197.247 (Agricultural Policy #14, Forest Policy #3)*

Lane County's application of the Marginal Lands designation/zone is spelled out in the Working Paper: Marginal Land (1983) document, which explains and cites ORS 197.247. In order for property to receive the designation and the zoning district of "ML", it must meet the following tests:

The land must not have been managed during thereof the five calendar years between January 1, 1978 and January 1, 1983, as part of a farming operation which produced $20,000 or more in annual gross income, or as part of a forest operation capable of producing an average, over the growth cycle, of $10,000 in annual gross income. Statistical information compiled by Oregon State University Extension service or other similar emperical data may be used to demonstrate income capability.

In addition to the above, the land must meet one of the following tests:

a. *At least 50% of the area of the proposed Marginal Land, plus the lots or parcels all or partially located within 1/4-mile of the perimeter of the proposed Marginal Land, consists of lots or parcels 20 acres or less in size as of July 1, 1983. Lands within an adopted Urban Growth Boundary are not to be included in this calculation. Those lots or parcels which are adjacent and of common ownership* are to be considered one lot or parcel (lots or parcels separated by a public road are not considered adjacent).*

**Owned by the same person, parents, children, sisters, brothers or spouses, separately or in tenancy in common, or ownership being transferred from one of those listed to another.*

b. *The proposed Marginal Land is located within an area of not less than 240 acres, of which at least 60% (by area) is made up of lots or parcels of 20 acres or less in size as of July 1, 1983. Lands within an adopted Urban Growth Boundary and/or lands within an area to which an exception has been adopted to Goal 3 or 4 (e.g., a Developed and Committed area) by the County are not to be included in the above calculation. Parcel ownership provisions as stated in "a" above also apply to this test.*

c. *The proposed Marginal Lands is composed predominantly (more than 50%, by area) of soils in capability classes V through VIII in the Agricultural Capability Classification System used by the U.S. Department of Agriculture Soil Conservation Service, and is not capable of producing 85 cubic feet of merchantable timber per acre per year.*

All Marginal Land applications will be considered pursuant to the County's Plan Amendment process (Lane Code 16.400). Applications must be for entire legal lots or parcels.

Submittal Requirements

1. Completed General Land Use Application Form.

2. Completed Plan Amendment Application Form.

3. A statement (affidavit) certifying that the property in the application has not been used for *farming* purposes per the condition in the statutory "income test."

4. A soils report, indicating soils types, acres of each, agricultural capability classification and forest land cubic foot site class ratings for the property. This will be used to determine if the property meets the *forest land* "income test," and will also be used if optional test "c" in the statute is selected for use by the applicant. See "soils test" below.

5. If optional tests "a" or "b" in the statute -- location of the property with respect to neighboring parcels -- are selected for use by the applicant, up-to-date assessor's maps showing parcels by size and ownership, within the areas designated by the statute, must be submitted with the application.

A filing fee will be assessed upon application. All information will be verified by County staff. Pre-application meetings are recommended. False or inaccurate information may be cause for invalidation of the application. It is the applicant's responsibility to provide the necessary data to allow processing of the application.

Soils Test:

In order for the forest land "income test" to be met, the following formula must be applied:

Cubic Foot Site Class	Maximum Acreage Allowed
2 (165-224 cf/a/y)	Seventeen Acres (17)
3 (120-164 cf/a/y)	Twenty-four Acres (24)
4 (85-119 cf/a/y)	Thirty-four Acres (34)
5 (50-84 cf/a/y)	Forty-three Acres (43)
6 (20-49 cf/a/y)	Sixty-four Acres (64)

If the property falls into more than one of the above categories, determine the maximum acreage allowed by stating:

1. Number of acres of the property in each applicable CFSC category;

2. Percentage of acreage within each category (divide the acres of the property within each category by the acreage maximum for each category);

3. Add the percentages. Maximum is exceeded if percentage is 100 or more, and property does not qualify for Marginal Land designation.

KENDALL Jerry

From: Jim Just [goal1@pacifier.com]
Sent: Tuesday, January 24, 2006 4:55 PM
To: KENDALL Jerry
Cc: SEGEL Lauri (SMTP); Jan Wilson
Subject: incomplete draft of testimony

Jerry,

FYI, attached is an incomplete draft of testimony I'm working on in Ogle. There's enough here for you to see where I'm going.

Jim Just, Executive Director
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Championing citizen participation in realizing sustainable communities, economies, and environments

— LCDC ATTCH. # 3 - 7pp. —

Lane County Planning Commission
125 E. 8th Avenue
Eugene, OR 97401

January 20, 2006

RE: Ogle-Childs marginal lands application, PA 05-5985

Dear Members of the Commission,

The Goal One Coalition (Goal One) is a nonprofit organization whose mission is to provide assistance and support to Oregonians in matters affecting their communities. Goal One is appearing in these proceedings at the request of and on behalf of its membership residing in Lane County. This testimony is presented on behalf of Goal One and its membership; LandWatch Lane County, 1192 Lawrence, Eugene OR 97401; LandWatch's membership in Lane County, specifically to include LandWatch President Mona Linstromberg, 87140 Territorial Rd, Veneta OR 97487; and Jim Just, 39625 Almen Drive, Lebanon OR 97355, as an individual.

I. Introduction

This application for a plan amendment and zone change to Marginal Lands involves the same property that was the subject of a similar application (PA 02-5838) that was withdrawn in December 2004 after a preliminary denial by the Board of Commissioners.

This proposal would redesignate 73.74 acres of land on two parcels, identified as Tax Lot 304 and Tax Lot 303 (parcels #1 and #2 of Plat No. 94-PO510, respectively) totaling 113.74 acres, from "Agricultural Land" to "Marginal Land," and change the zoning from E-40/ Exclusive Farm Use to ML/Marginal Land. The northern portions of both TL 304 and TL 303, totaling 40 acres, were redesignated and rezoned Marginal Land in 1992 (PA 0221-92). The subject property is located just south of the Metro UGB in southwest Eugene. It is accessed from the southern end of Timberline Drive.

The subject lands are adjacent to F2-zoned land to the west and south, and to E40-zoned lands to the east. ORS 215.237 and LC 16.214 require a minimum parcel size of 20 acres if the parcel is adjacent to land zoned for farm or forest use that would not qualify as marginal land, and otherwise require that parcels be at least 10 acres in size.

The criteria for the designation of marginal land are set out in ORS 197.247 (1991 edition). The Staff Report refers also to Lane County guidelines for interpreting and administering marginal lands provisions, issued by the Board of Commissioners in March 1997. Because the provisions being applied are provisions of state statute, no deference is due or will be given to local interpretations of ORS 197.247.

ORS 197.247 establishes a two-part test for the designation of marginal land. Any proposal for a marginal land designation must first comply with the "income test" requirement of ORS 197.247(1)(a), which requires that the applicant prove that the subject land was not managed, during three of the five calendar years preceding January 1, 1983, as part of a farm operation producing $20,000 in annual gross income or as part of a forest operation capable of producing an average of $10,000 in annual gross income over the growth cycle.

The second part of the marginal land test contains three options. ORS 197.247(1)(b)(A) and (B) are "parcelization" tests, which look at parcel sizes of adjacent and nearby lands. ORS 197.247(1)(b)(C) is the "productivity" test, which requires the applicant to demonstrate that the land is predominantly comprised of soils in capability classes V through VIII and is not capable of producing 85 cf/ac/yr of merchantable timber.

The applicant has submitted a Forest Productivity Analysis prepared by Marc. E. Setchko, Consulting Forester (Setchko Report). The Setchko Report indicates that the applicant has again chosen to address the "productivity" option of the second prong of the marginal lands test.

Because calculation of average income over the growth cycle depends upon assumptions and evidence related to productivity of the proposed marginal lands, this letter will first address issues concerning the "productivity" test of ORS 197.247(1)(b)(C) and then address "income" test issues relating to ORS 197.247(1)(a).

II. Analysis

A. Productivity test

The productivity test must be based on the potential forest productivity of the proposed marginal lands. In this case, this includes a total of 73.74 acres of the combined total of 113.74 acres of TLs 303 and 304.

Soils on the proposed marginal lands and their potential productivity for forest production are shown in the table below. Soils are as given in the Soil Survey of Lane County Area, Oregon. Forest productivity is for Douglas-fir except for the Philomath soil units, for which productivity is for Ponderosa pine.

Table 1: Productivity using published data[1]

#	Soil Name	Acres	Site Index	cf/ac/yr	total growth
81D	McDuff clay loam 3-25% slopes	5.60	112	158	884.8
102C	Panther silty clay loam2-12%	14.69	-	45	661.1
107C	Philomath silty clay 3-12%	31.13	125	154	4794.0
108F	Philomath cobbly silty clay 12-45%	12.67	125	154	1951.2
113E,G	Ritner cobbly silty clay loam 12-60%	9.65	107	149	1437.9
	Totals	**73.74**			**9,729.0**

[1] Source: *Establishing and Managing Ponderosa Pine in the Willamette Valley,* Oregon State University Extension Service, EM 8805, May 2003.

Average growth potential = 9,729.0 cf/yr ÷ 73.74 acres = 131.94 cf/ac/yr.

The following table is identical to the preceding table except that it uses the site productivity for Ponderosa pine as measured by the applicant's forestry consultant.

Table 2: Productivity using applicant's published data and site data

#	Soil Name	Acres	Site Index	cf/ac/yr	total growth
81D	McDuff clay loam 3-25% slopes	5.60	112	158	884.8
102C	Panther silty clay loam2-12%	14.69	-	45	661.1
107C	Philomath silty clay 3-12%	31.13	104	110	3424.3
108F	Philomath cobbly silty clay 12-45%	12.67	104	110	1393.7
113E & G	Ritner cobbly silty clay loam	9.65	107	149	1437.9
	Totals	**73.74**			**7,801.8**

Average growth potential = 7,801.8 cf/yr ÷ 73.74 acres = 105.80 cf/ac/yr.

The applicant's forestry consultant has calculated that the cf/ac/yr productivity of the proposed marginal land is only 69.327 cf/ac/yr. However, in arriving at this result, the forestry consultant has "invented" a new soil he calls "Grassland with exposed rock," assigned a forest productivity of "zero" to that new soil unit, and determined that 24.46 acres or 33.2 percent of the proposed marginal land is comprised of this "Grassland with exposed rock" soil unit.

Mr. Setchko is not a soils scientist and is not credentialed or otherwise qualified to either determine that a new soil type exists in Lane County or to conduct the higher intensity soil survey necessary to delineate the location and extent of any such new soil type on the proposed marginal lands. A soil scientist may be certified as a soils classifier by ARCPACS (A Federation of Certifying Boards in Agronomy, Biology, Earth and Environmental Sciences); or must otherwise document an understanding of the physical, chemical, mineralogical and biological properties that apply to pedology, and proficiency in the practice of applying pedology to soil investigation, classification, education, and consultation on the effect of measured, observed and inferred soil properties and their use. Mr. Setchko is qualified neither to identify a "new" soil not found in the NRCS Soil Survey of Lane County Area, Oregon, nor to determine the potential productivity of any such "new" soil or to base a determination of the productivity of any subset of an existing soil unit on soil characteristics rather than measurement of site trees.

OAR 660-006-0010 requires that governing bodies inventory forest lands using forest site class methodology. Site class can be expressed as cf/ac/yr productivity as shown in the table below:

Site Class	Potential Yield, Mean Annual Increment
1	225 or more cubic feet per acre
2	165 to 225 cubic feet per acre
3	120 to 165 cubic feet per acre
4	85 to 120 cubic feet per acre
5	50 to 85 cubic feet per acre
6	20 to 50 cubic feet per acre

Source: USDA Forest Service. See also OAR 629-610-0020.

LUBA has held that OAR 660-006-0010 requires that Goal 4 inventory decisions be based on objective measures of productivity and that OAR 660-066-0010 applies when making inventory decisions regarding forest lands. *Wetherell v. Douglas County,* __ Or LUBA __ (LUBA No. 2005-075, September 30, 2005), slip op 10-12.

OAR 660-006-0010 further provides:

> "If site information is not available then an equivalent method of determining forest land suitability must be used."

In this instance, site information is available. There is no need to utilize any other method of determing land suitability. Under such circumstances OAR 660-006-0010 does not allow for an applicant to challenge NRCS soils information or productivity data. Unlike OAR 660-006-0050(2), which explicitly authorizes the use of alternative data "[w]here NRCS data are not available or are shown to be inaccurate," OAR 660-006-0010 does not authorize the use of alternative methodology for determining productivity. The forestry consultant in this case has improperly failed to use NRCS site information where it is available.

If NRCS information is not to be relied on, OAR 660-006-0010 requires the use of an "equivalent method." The methodology used to make the Soil Survey of Lane County Area, Oregon is discussed at pp. 4-5 of that document, and states, in relevant part:

> "Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. * * *
>
> "The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind or segment of the landscape. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landscape, a soil scientist develops a concept, or model, or how they were formed. Thus, during mapping, this model enables the soil scientist to predict with considerable accuracy the kind of soil or miscellaneous area at a specific location on the landscape.
>
> "* * *
>
> "To show the detail significant to farm planning and to the application of agricultural science to farms, the soils in the survey area have been mapped at a scale of 4 inches to the mile. At this scale, a map unit includes small areas of other soils that must be included because of the limitations imposed by this scale and by the number of points that can be examined in the field.
>
> "The soil boundary lines delineated on the aerial photographs encompass the soil identified by the map symbol plus a small proportion of other soils – as much as about 15 percent of contrasting soils (no more than 10 percent of one kind of soil) that cannot be excluded in practical soil cartography. * * *

> "Individual soils on the landscape commonly merge gradually onto one another as their characteristics gradually change. To construct an accurate map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.
>
> "Soil scientists recorded the characteristics of the soil profiles that they studied. * * * Soil scientists [then] assigned the soils to taxonomic classes (units). * * * The classes are used as a basis for comparison to classify soils systematically. * * * They compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research. * * *
>
> "* * * Soil scientists interpreted the data from these analyses and tests as well as the field-observed characteristics and soil properties to determine the expected behavior of the soils under different uses. * * *"

The applicant's forestry consultant has reclassified 24.45 of the 43.83 acres of 107 and 108 Philomath soils as ""Grassland with exposed rock," and has asserted that these soils are too shallow, rocky, and dry to support and tree growth whatsoever. The Soil Survey states that the Philomath units are "shallow and well drained." Soil Survey, pp. 122-23. Ponderosa pine commonly grows on shallow, rocky clay soils in the Valley foothills.[2]

The applicant's forestry consultant failed to use an "equivalent method" of determining the forest suitability of the 24.46 acre area he describes as "grassland with exposed rock." No holes were dug. No soils were examined, described or classified; nor did examination of the soils serve as a basis for the mapping that was done. The characteristics of the soils did not serve as basis for determining the expected behavior of the soils in support of forest productivity.

Neither did the forestry consultant's qualifications or methodology meet the commonly accepted standards of soil science methodology. Acceptable standards are laid out at OAR 603-080-0040(3). No soils report was prepared. The level of order of survey used in the field survey was not identified. The scale and type of maps used for field investigation, the number of sample locations and observation points were not identified. The points of agreement or disagreement with NRCS mapping units were not identified. The date of the field investigation was not identified. The methods used for observation and documentation were not identified. No notations concerning any limitations encountered during field investigation were made.

The applicant's forestry consultant has also included an alternative computation of productivity which excludes the area beneath the powerline easements. The presence of a power line easement does not affect the capability of the *land*, which is the focus of the inquiry required by ORS 197.247(1)(b)(C). LUBA has held that, for purposes of inventorying parcels that are crossed by power line easements, such easement restrictions are not a proper

[2] *Establishing and Managing Ponderosa Pine in the Willamette Valle,* p. 3.

consideration in determining the land's potential for forest productivity. *Wetherell v. Douglas County,* __ Or LUBA __ (LUBA No. 2005-075, 09/30/2005), slip op 17.

Goal One and other parties whose addresses appear in the first paragraph of this letter request notice and a copy of any decision and findings regarding this matter.

Respectfully submitted,

Jim Just
Executive Director

[John Mercer †1866 English calico printer + E -ize] 1 : to give (cotton yarn or cloth) luster, strength, and receptiveness to dyes by treatment under tension with caustic soda — compare CAUSTICIZE 2 2 : to steep (wood pulp) in a caustic soda solution during the manufacture of viscose rayon

mer·cer·iz·er \-,rīzə(r)\ n -s 1 : a textile worker who mercerizes 2 : a machine for mercerization

mer·cers·burg \'mərsərz,bərg\ adj, usu cap [fr. Mercersburg, Pa., the former site of the Theological Seminary of the German Reformed Church, where the doctrine was in part formulated] : of or relating to a system of American theology developed in the German Reformed Church in the middle and late 19th century and marked by Christocentrism, a Calvinist view of the Lord's Supper, and emphasis on the liturgical element in worship

mer·cery \'mərs(ə)rē, 'mə̄s-,'məis-, -ri\ n -ES [ME mercerie, fr. OF merserie, mercerie, fr. mers, merz merchandise + -erie -ery] 1 Brit : a mercer's wares or shop 2 Brit : a mercer's occupation or dealings

merch abbr merchantable

mer·chan·dis·able \'mərchən,dīzəbəl, 'mə̄ch-,'məich-, ,--'---\ adj [²merchandise + -able] : MERCHANTABLE

¹mer·chan·dise \'--,dīz, -īs\ n -s [ME marchaundise, fr. OF marcheandise, fr. marcheant merchant — more at MERCHANT] 1 a : the commodities or goods that are bought and sold in business : the wares of commerce b obs : an article of merchandise 2 archaic : the buying and selling of goods for profit : the occupation of a merchant : business activity

²mer·chan·dise also **mer·chan·dize** \-īz\ vb -ED/-ING/-S [ME marchaundisen, fr. marchaundise, n.] vi : to carry on commerce : TRADE, TRAFFIC ~ vt 1 : to buy and sell : deal in : make merchandise of 2 : to carry on sales promotion of : advertise, publicize, or present attractively or effectively — **mer·chan·dis·er** \-zə(r)\ n -s

merchandise freight n : goods in less than carload lots for expedited movement in merchandise trains

merchandising n -s [fr. gerund of ²merchandise] : sales promotion as a comprehensive function including market research, development of new products, coordination of manufacture and marketing, and effective advertising and selling

¹mer·chant \'mərchənt, 'mə̄ch-,'məich-\ n -s [ME marchaunt, marchaund, marchant, fr. OF marcheant, fr. (assumed) VL mercatant-, mercatans, fr. pres. part. of (assumed) VL mercatare, fr. L mercatus, past part. of mercari to trade, deal in commodities, fr. merc-, merx ware, merchandise — more at MARKET] 1 a : a buyer and seller of commodities for profit : TRADER b : the operator of a retail business : STOREKEEPER 2 Scot : CUSTOMER 3 archaic : FELLOW, GUY 4 obs : MERCHANTMAN 5 : a person conspicuous for ideas or activities of a particular kind : PURVEYOR, SPECIALIST ⟨his guess is likely to be as accurate as that of the ~ of doom —Harrison Smith⟩ ⟨had been . . . acquiring among musical-comedy orchestrators a reputation as a speed ~ —H.W.Wind⟩

²merchant \"\ adj [ME marchaund, marchant, fr. marchaunt, marchaund, marchant, n.] 1 a : of, relating to, or used in commerce b : of or relating to a merchant marine c : having a merchant's traits or qualities 2 a : of ordinary or standard shape or size : not made to special order : STOCK — used of metal bars and ingots ⟨~ pig iron⟩ b : producing metal bars or ingots in standard shapes and sizes ⟨~ mill⟩

³merchant \"\ vb -ED/-ING/-S [ME marchaunden, fr. MF marchander, fr. OF marcheandier, fr. marcheant merchant] vi, archaic : to deal or trade as a merchant ~ vt : to buy and sell : deal or trade in ⟨something considerably superior to what Broadway usually ~s in these days —G.J.Nathan⟩

mer·chant·able \-təbəl\ adj [ME merchandabull, fr. marchaunden + -abull, -able -able] : of commercial quality : acceptable to buyers : SALABLE ⟨it is estimated that a thousand million tons of ~ coal are in reserve —Canadian Mining Jour.⟩ — **merchant·able·ness** n -ES

merchant adventurer n, pl **merchant adventurers** or **merchants adventurers** [ME marchaunt adventurer] : a merchant who establishes foreign trading stations and carries on business ventures abroad; esp : a member of one of the former English companies of merchant adventurers operating from the 14th to the 16th centuries

merchant banker n : an acceptance house that also does investment banking

merchant flag n : a flag flown by the merchant vessels of a country that is sometimes identical with the national flag

merchantlike \'--,-\ adj 1 : like or proper to a merchant 2 obs : MERCANTILE

merchantly adj, obs : of or relating to merchants

mer·chant·man \'--mən\ n, pl **merchantmen** [ME marchand man] 1 archaic : MERCHANT 2 : a ship commercially operated to carry passengers or freight : a ship used in commerce — called also merchant ship

merchant marine n 1 : the privately or publicly owned commercial vessels of a nation as distinguished from its navy 2 : the personnel of a merchant marine

merchant middleman n : a middleman who takes title to goods purchased for resale

merchant navy n, Brit : MERCHANT MARINE

merchant prince n : a merchant of great wealth

mer·chant·ry \'mərchəntrē\ n -ES : a merchant's dealings : TRADE

merchant seaman n : a seaman employed on a merchant ship

merchant service n : MERCHANT MARINE

merchant ship n : MERCHANTMAN 2

merchant tailor n : a custom tailor who owns his business and supplies the fabrics he uses

merchant venturer n, obs : MERCHANT ADVENTURER

merchet var of MARCHET

¹mer·cian \'mərsh(ē)ən\ adj, usu cap [Mercia, ancient Anglian kingdom in central England + E -an] 1 a : of, relating to, or characteristic of the Anglian kingdom of Mercia b : of, relating to, or characteristic of the Mercians 2 : of, relating to, or constituting the Old English dialect of Mercia

²mercian \"\ n -s cap 1 : a native or inhabitant of Mercia 2 : the Old English dialect of Mercia

mercies pl of MERCY

mer·ci·ful \'mərsəfəl, 'mə̄s-, 'məis-, -sēf-\ adj [ME, fr. merci, mercy mercy + -ful — more at MERCY] : full of mercy : marked, exercising, or disposed to mercy : CLEMENT, COMPASSIONATE, LENIENT ⟨if tried by the manners of his age, Caesar was the most ~ of conquerors —J.A.Froude⟩ ⟨the ~ possibilities of the antibiotics — F.L.Allen⟩ syn see FORBEARING

mer·ci·ful·ly \-f(ə)lē, -li\ adv [ME, fr. merciful + -ly] : in a merciful manner : so as to be merciful ⟨struggles that were ~ brief⟩

mer·ci·ful·ness \-fəlnəs\ n -ES : the quality or state of being merciful

mer·ci·less \-sələs, -sōləs sometimes -sləs\ adj [ME mercyles, fr. merci, mercy mercy + -les -less] : having, extending, or showing no mercy : CRUEL, HARSH, PITILESS, REMORSELESS ⟨turns a ~ spotlight on the precocious technicians, the spiritual sophomores, and the hairy-chested muscle men of contemporary literature —Gilbert Highet⟩ — **mer·ci·less·ly** adv — **mer·ci·less·ness** n -ES

Mer·cu·hy·drin \,mərkyə'hīdrən\ trademark — used for meralluride

mercur- or **mercuro-** comb form [ISV, fr. mercury] : mercury ⟨mercurophylline⟩

¹mer·cu·rate \'mərkyərət, -,rāt, usu -d·+V\ also **mer·cu·ri·ate** \(,)mər'kyurēət, -ēat, usu -d·+V\ n -s [mercur- or mercuri- + -ate (n. suffix)] : any of various salts containing bivalent mercury in a complex anion — compare IODOMERCURATE

²mer·cu·rate \'mərkyə,rāt, 'mə̄k-, 'məik-, usu -ād·+V\ vt -ED/-ING/-S [mercur- + -ate (v. suffix)] : to combine or treat with mercury or a mercury salt : introduce mercury into (as an organic compound) — **mer·cu·ra·tion** \,--'rāshən\ n -s

1 usu cap : of, relating to, or like the ancient Roman god Mercury 2 a : of or relating to the planet Mercury b : born under or influenced astrologically by the planet Mercury 3 : having qualities of eloquence, ingenuity, sharp dealing, or thievishness attributed in myth to the god Mercury and in astrology to the influence of the planet Mercury ⟨more than ~ thievishness —Sat. Rev.⟩ 4 : characterized by rapid and unpredictable changeableness or by quick-wittedness : SPRIGHTLY, TEMPERAMENTAL, VOLATILE ⟨a deeply ~ intuitive artist —Christopher Morley⟩ ⟨~ desponds —D.C.Peattie⟩ ⟨~ twists of temperament —T.B.Costain⟩ ⟨the Japanese are ~ — high-strung, touchy, ready to fly into a rage —D.G. Haring⟩ 5 [Mercury + -al] a : of, relating to, containing, or consisting of mercury ⟨~ preparations⟩ b : caused by or exhibiting the physiological effect of the use of mercury ⟨~ sore mouth⟩ syn see INCONSTANT

²mercurial \"\ n -s 1 obs : a person born under Mercury or having mercurial qualities 2 [L (herba) mercurialis dog's mercury, lit., Mercurial herb] obs : GOOD-KING-HENRY 3 : a pharmaceutical preparation or chemical compound containing mercury ⟨the diuretic action of ~s⟩

mer·cu·ri·a·lis \(,)mər,kyurē'aləs, -āl-, -äl-\ n [NL, fr. L (herba) mercurialis dog's mercury] 1 cap : a small genus of slender herbs (family Euphorbiaceae) having opposite pinnately-veined leaves and apetalous flowers in interrupted axillary spikes — see BOYS-AND-GIRLS 2, DOG'S MERCURY 2 -ES : an herb (Mercurialis annua) formerly dried for use as a purgative, diuretic, and antisyphilitic

mer·cu·ri·al·ism \(,)-'--ə,lizəm\ n -s : chronic poisoning with mercury (as from excessive medication or industrial contacts with the metal or its fumes) — called also hydrargyrism

mercurialist n -s obs : MERCURIAL 1

mer·cu·ri·al·i·ty \(,)-,--'aləd·ē\ n -ES : the quality or state of being mercurial : VOLATILITY

mer·cu·ri·al·ly \;mər;kyurēəlē, ,mə(r)'k-, (')mə̄;k-, (')məi;k-, -li\ adv : in a mercurial manner

mercurial ointment n : an ointment containing about 50 percent of finely divided metallic mercury incorporated with wool fat, white wax, mercury oleate, and white petrolatum — compare BLUE OINTMENT

¹mercurian adj [Mercury (god & planet) + E -an] obs : MERCURIAL

²mer·cu·ri·an \(,)mər'kyurēən\ n -s usu cap 1 : one born under Mercury 2 : one that has a well-developed Mount of Mercury and a long and large finger of Mercury and that is usu. held by palmists to be characterized by shrewdness, quickness, and energy

mercuriate var of MERCURATE

mer·cu·ric \;mər;kyurik, ,mə(r)'k-, (')mə̄;k-, (')məi;k-, -rēk\ adj [mercur- + -ic] : of, relating to, or containing mercury — used esp. of compounds in which this element is bivalent

mercuric chloride n : MERCURY CHLORIDE b

mercuric cyanide n : the mercury cyanide $Hg(CN)_2$

mercuric iodide n : MERCURY IODIDE b

mercuric oxide n : a slightly water-soluble crystalline poisonous compound HgO known in two forms (1) a yellow finely divided powder obtained usu. by precipitation from solutions of mercury chloride (sense b) and sodium hydroxide and used chiefly in medicine (as in antiseptic ointments), in antifouling paints, and in making other mercury compounds (2) a bright red coarse powder obtained by precipitation from hot solutions or by heating mercurous nitrate and used similarly to the yellow form and also in dry cells — called also mercury(II) oxide

mercuric sulfide n : an insoluble compound HgS occurring in nature as the red mineral cinnabar and the black mineral metacinnabar and also made synthetically in red and black forms — called also mercury(II) sulfide; see VERMILION 1a

mer·cu·ride \'mərkyə,rīd, -,rəd\ n -s [mercur- + -ide] : a binary compound of mercury with a more electropositive element or radical — compare AMALGAM

mer·cu·rize \-,rīz\ vt -ED/-ING/-S [mercur- + -ize] : MERCURATE

mercuro- — see MERCUR-

Mer·cu·ro·chrome \(,)mər'kyurə,krōm\ trademark — used for merbromin

mer·cu·ro·phyl·line \,mərkyərō'fi,lēn, -,lən\ n -s [mercur- + theophylline] : a diuretic consisting of a chemical combination of an organic mercurial compound or its sodium salt $C_{14}H_{24}HgNNaO_5$ and theophylline

mer·cu·rous \(;)mər;kyurəs, 'mərkyər-\ adj [mercur- + -ous] : of, relating to, or containing mercury — used esp. of compounds in which this element is regarded as univalent ⟨the ~ ion . . . is Hg:Hg⁺⁺ rather than Hg⁺ —E.S.Gould⟩

mercurous chloride n : CALOMEL

mercurous iodide n : MERCURY IODIDE a

mer·cu·ry \'mərkyərē, 'mə̄k-, 'məik-, -k(ə)rē, -ri\ n -ES 1 [ME mercurie, fr. ML mercurius, fr. L Mercurius Mercury, ancient Roman god of commerce and messenger of the gods; prob. fr. the comparison of the mobility of the metal to the traditional fleetfootedness of the god] a : a heavy silver-white univalent and bivalent poisonous metallic element that is the only metal liquid at ordinary temperatures, that occurs native and in cinnabar, calomel, and a few other minerals, that is prepared usu. by roasting cinnabar and condensing the vapors, and that is used chiefly in scientific instruments (as electrical apparatus, control devices, thermometers, barometers), mercury boilers, mercury pumps, and mercury-vapor lamps — symbol Hg; called also quicksilver; see AMALGAM, ELEMENT table b : the mercury in a thermometer or barometer ⟨in a climate where the ~ sports around 110 the whisky should be only of the best quality —D.D.Martin⟩ c : pressure (as in the manifold of an engine) measured in inches or millimeters of mercury ⟨pulling between forty-seven and fifty inches of ~ —J.M. Redding & H.I.Leyshon⟩ d : a pharmaceutical preparation containing the metal mercury or a compound of it e often cap, obs : mercurial quality : brilliance, inconstancy, or volatility of mood or attitude f : the principle of liquidity and volatility in alchemy 2 [ME mercurie fr. Mercurie the god Mercury, fr. L Mercurius; after L (herba) mercurialis dog's mercury] : any of several plants: as a : a plant of the genus Mercurialis; esp : DOG'S MERCURY b : GOOD-KING-HENRY c : POISON IVY 3 [after Mercury, messenger of the gods, fr. ME Mercurie] a often cap, archaic : a bearer of messages or news or a conductor of travelers b usu cap, obs (1) : a statue of Mercury (2) : SIGNPOST (3) : HERM c usu cap, obs : a hawker of pamphlets

mercury arc n : an electric discharge through mercury vapor in a glass or quartz tube emitting a blue-green light rich in actinic and ultraviolet rays and used for various purposes (as for water sterilization, in photography, and in a rectifier)

mercury-arc lamp n : MERCURY-VAPOR LAMP

mercury-arc rectifier n : an alternating-current rectifier consisting of a mercury arc esp. designed to utilize its rectifying action, one electrode being a pool of mercury with current flowing only during that part of the cycle in which the mercury acts as the cathode

mercury bichloride n : MERCURY CHLORIDE b — not used systematically

mercury chloride n : a chloride of mercury: as a : CALOMEL b : a heav... $HgCl_2$ mad... or by subli... salt and use... other merc... corrosive su...

mercury cy[redacted] made usu. by reaction of mercuric oxide with hydrocyanic acid and used chiefly in medicine

mercury fulminate n : a crystalline compound $Hg(ONC)_2$ ...

posure to light — called also mercurous ... crystalline poisonous salt HgI_2 that ch... crystalline modification when heated abov... is used chiefly in medicine — called also ...

mercury lamp n : MERCURY-VAPOR LAMP

mercury line n, usu cap M [after Mercury, ... merce, fr. L Mercurius] : LINE OF MERCURY

mercury oxide n : an oxide of mercury; esp...

mercury red n : vermilion or a color reser...

mercury's staff n, usu cap M : CADUCEUS ...

mercury sulfide n : a sulfide of mercury ... SULFIDE

mercury switch n : a switch in which an ... closed and opened by tilting a reservoir of ...

mercury thiocyanate n : a thiocyanate of ... crystalline poisonous mercuric compound ... by precipitation and used chiefly in firework... SERPENT

mercury-vapor lamp \'---;--\ n : a gas... which the gaseous medium is mercury vapo...

mercury weed n : THREE-SEEDED MERCURY

mer·cy \'mərsē, 'mə̄s-, 'məis-, -si\ n -ES [ME ... OF merci, merci, fr. ML merced-, merces, f... something, wages, reward, recompense, fr. ... merchandise — more at MARKET] 1 a : c... bearance shown to an offender or subject ... ness extended to someone instead of stri... : LENIENCY ⟨the illusion of omniscience . ... inhumanity when it leads us to shut the g... Cohen); esp : the mercy of God to man ⟨sho... sands of them that love me and keep m... —Exod 20:6 (AV)⟩ b : a sentence of im... than of death imposed in clemency on a pe... first-degree murder 2 a : a blessing rega... divine favor or compassion ⟨seemed oblivio... mercies of his daily life⟩ b : a fortunate eve... ⟨the more open ground was a ~ —Fred Maj... of distress : compassion shown to victims o... ways of performing acts of kindness and ~ ... Dean⟩

syn CLEMENCY, LENITY, CHARITY, GRACE: ... much emotional force and hence one appl... situations, indicates a kindly refraining from ... ment or pain, often a refraining brought a... felt compassion and sympathy, or a ge... toward these latter characteristics ⟨earthly ... show likest God's when mercy season just... quality of brutality was not isolated in the ... the quality of mercy unknown to them —... CLEMENCY, a less emotionally colored word, ... ency to be mild and compassionate, to adi... moderate punishment or treatment rather ... severe ⟨clemency . . . is the standing policy ... governments, as severity is of despotism - ... ⟨Cicero had prophesied so positively that Ca... off the mask of clemency . . . that he was dis... him persevere in the same gentleness —J.A... may suggest absence of severity, may con... uninterrupted and unvaried and verging o... careless leniency ⟨whether this indulgence ... wisdom and lenity of the government —Tobi... to be expected that they would show much ... regarded as the chief of the Rye House Plot ... CHARITY indicates clemency of judgment, ... judge mildly or tolerantly ⟨marriage had b... often ends happily, in charity of mind —El... other, more common uses it suggests a ben... arising from a feeling of love of others ⟨wi... none, with charity for all —Abraham Lincol... GRACE may combine the associations of CLEME... ⟨his eyes upraised to sue for grace —Willi... — **at the mercy of** : wholly in the power of ... the mercy of the conqueror —John Locke⟩ ... risky business, at the mercy of weather, pests ... —Printers' Ink⟩

mercy seat n [fr. mercy seat, gold covering o... covenant in the Bible (Exod 25:17); trans. ... trans. of Heb kappōreth] : the throne of G... place of divine access, communion, or propit...

merd n -s [ME, fr. MF merde, fr. L merda — ... obs : DUNG

mer·div·o·rous \(;)mər;divərəs\ adj [L merd... -i- + -vorous] : COPROPHAGOUS

¹mere \'mi(ə)r, -iə\ n -s [ME, fr. OE — more ... a : SEA b : an arm of the sea : CREEK, INLE... standing water : LAKE, POOL ⟨had seen sev... inland ~ —Yale Rev.⟩ 3 : FEN, MARSH

²mere \"\ n -s [ME, fr. OE mǣre, gemǣre ... TION] archaic : BOUNDARY : a mark or line def... : LANDMARK, LIMIT

³mere \"\ vb -ED/-ING/-S vt, archaic : to mar... of ~ vi, obs : to abut on

⁴mere \"\ adj -ER/-EST [ME, fr. L merus pure ... MORN] 1 a : done or invoked without assista... used chiefly in legal contexts in the phrases m... will b law : having theoretical or legal b... reality ⟨~ right⟩ 2 obs : fully realized or d... LUTE, TOTAL, UNDIMINISHED 3 : exclusive ... apart from anything else : BARE ⟨if he does ... accept his theory of the good on his ~ autho... give us some rational ground for it —M.R.Co... above ~ politics —D.W.Brogan⟩ 4 : havi... : PURE, UNDILUTED ⟨~ genius —Stanislaus Jo...

⁵mere \'merē\ n -s [Maori] 1 Austral : a ... 2 Austral : a miniature Maori war club fash... stone and worn as an ornament

⁶mere \'mi(ə)r, -iə\ n -s [-mere] zool : SEGME...

-mere \,mi(ə)r, -iə\ n comb form -s [F -mère, f... — more at MERIT] 1 biol : part : segment ⟨art... mere⟩ 2 chem : -MER ⟨isomere⟩

¹mer·e·dith·i·an \;merə;dithēən\ adj, usu ... Meredith †1909 Eng. novelist & poet + E -ia... to, or characteristic of George Meredith or ...

²meredithian \"\ n -s usu cap : a follower of ... or an enthusiast for his works, his style, or ...

mer·els \'merəlz\ n pl but sing in constr [M... counter in the game of merels, fr. MF merel, ... token, fr. OF; akin to OF merele, marele cou...

mere·ly adv [⁴mere + -ly] 1 obs : without adm... 2 : to the full extent : ENTIRELY, QUITE, WHOl... surprising that . . . one could have been s... —Oliver La Farge⟩ 3 : no more than : ... SIMPLY, SOLELY ⟨went past the bounds of boh... verge of the ~ sordid —New Yorker⟩

me·ren·gue \mə'reŋ(,)gā\ also **mé·ringue** ... [AmerSp merengue & Haitian Creole méring... Dominican and Haitian ballroom dance with ...

me·re·ol·o·gy \,mirē'äləjē\ n -ES [irreg. fr. ... logic] : a theory of extended individuals in the ... of part to whole and of overlapping — com...

meresman ... officer nam...

... merstane, f... more at MU... boundary : LAN...

mer·e·tri·cious \,merə;trishəs\ adj [L m... meretric-, meretrix] 1 : of or relating to a pro... a harlot's traits ⟨the Pennsylvania court . . . that there was a common-law marriage here ...

from "Webster's 3rd New International Dictionary" 1981 copyright

LCPC ATTH #4-1p.

KENDALL Jerry

From: Michael Mattick [Michael.J.MATTICK@wrd.state.or.us]
Sent: Friday, January 23, 2004 3:32 PM
To: KENDALL Jerry
Subject: EGR Aquifer Study

Hi Jerry,

Due to Marc's comments accidentally being shipped to Tillamook before coming to me, I just got them.

He thinks the report is pretty bad (poorly written, inaccurate), but, none-the-less, he agrees that with 10 acre lots, the development should not over tax the ground water system.

Thanks for passing this on to us.

MM

+===+
| Michael J. Mattick email to:
Michael.J.Mattick@wrd.state.or.us |
| Watermaster District
2
|
| Voice: (541)-682-3620 FAX:
(541)-746-1861 |
| Oregon Water Resources Department Web page: http://www.wrd.state.or.us |
|
|
| Office located
at:
|
| Central Lane Justice
Court
|
| 220 N 5th
St.
|
| Springfield, Oregon 97477
| |
+===+

— LCPC ATTCK. #5-1p. —

Land Use Application

REQUEST / PROPOSAL FOR:
PLAN AMENDMENT MARGINAL LANDS ZONE CHANGE

FILE NO. PA05 5985
ACTION PA2C FEE $6010.00

LOCATION (PLEASE PRINT)

TOWNSHIP	RANGE	SECTION	1/4 SECTION	TAX LOT	SUBDIVISION / PARTITION	LOT / PARCEL	BLOCK
18	04	11		303 and 304			

ZONED	TAX CODE	PLOT #	ACREAGE
E40	00470	319	73.73 acres

LOCATION ADDRESS: 3101 Timberline Drive, Eugene, OR

STRUCTURES NOW ON PROPERTY: house and accessory buildings

APPLICANT / AGENT

NAME (PLEASE PRINT): Michael E. Farthing — DATE: 7-13-05

ADDRESS: 767 Willamette St., Suite 203 — PHONE: (541) 485-1141

CITY: Eugene, OR 97401 — ZIP:

OWNER

NAME (PLEASE PRINT): Brad and Julie Ogle - Mark and Cindi Childs — DATE: 7-13-05

ADDRESS: P.O. Box 25509 — PHONE: (541) 520-1413

CITY: Eugene, OR 97402 — ZIP:

DO YOU OWN ADJACENT PROPERTY? Yes ☐ No ☒

MAP, PARCEL NUMBER

Township	Range	Section	1/4 Section	Tax Lot
18	04	11		303, 304

WATER PUBLIC ☐ ON-SITE WELL ☒ COMMUNITY SYSTEM ☐

SEWAGE PUBLIC ☐ ON-SITE SEPTIC ☒ COMMUNITY SYSTEM ☐

ROAD STATE ☐ COUNTY ☐ PUBLIC ☐ EASEMENT ☒

FIRE DISTRICT: Bailey Spencer — SCHOOL DISTRICT: Eugene 4J

POWER COMPANY: EWEB — PHONE COMPANY: Quest

I (We) have completed all the attached application requirements and certify that all statements are true and accurate to the best of my (our) knowledge and belief. I am (We are) so authorized to submit this application as evidenced by the signature of the owner below.

OWNER Signature: Brad Ogle — Date:

APPLICANT Signature: Michael Farthing — Date: 7-13-05

An accurate Plot Plan must be attached. Ask for a sample Plot Plan

SPECIFIC SECTION OF LANE CODE REQUIRING THIS APPLICATION

RELATED PERMIT #

STAFF COMMENTS:

24 2 99

Michael E. Farthing
Attorney at Law

Smeede Hotel Building
767 Willamette Street, Suite 203
Eugene, Oregon 97401
Office (541) 485-1141 – Fax (541) 485-1174
email - mefarthing@yahoo.com

December 8, 2005

HAND DELIVERED

Jerry Kendall
Lane County Land Management Division
Courthouse/PSB
125 E. 8th Avenue
Eugene, Or 97401

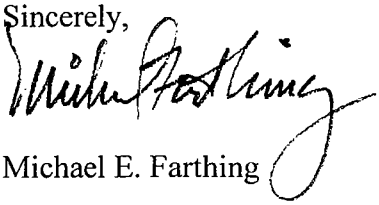
Re: Marginal Lands Plan Amendment Application
Tax Lots 303 and 304, Map No. 18-04-11
(Ogle-Childs)

Dear Jerry:

As you requested I am enclosing nine additional copies of the application that I previously submitted for the above-referenced matter. I assume we are still scheduled for public hearing before the Lane County Planning Commission on January 17. Since the Delta Sand and Gravel hearing has been continued to that date, I hope that our matter could be heard first on that evening before the Delta discussion. I would not expect our presentation to be more than 30 minutes, if even that long.

Please call if you have questions or need additional information.

Sincerely,



Michael E. Farthing

MEF/ks

Enclosure

cc: Brad Ogle
Marc Setchko

Michael E. Farthing
Attorney at Law

Smeede Hotel Building
767 Willamette Street, Suite 203
Eugene, Oregon 97401
Office (541) 485-1141 – Fax (541) 485-1174
email - mefarthing@yahoo.com

July 13, 2005

HAND DELIVERED

Kent Howe, Planning Director
Lane County Land Management Division
Courthouse/PSB
125 E. 8th Avenue
Eugene, OR 97401

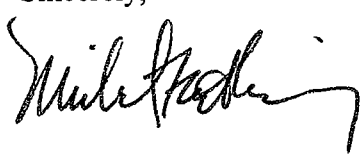
Re: Marginal Lands Plan Amendment Application
Tax Lots 303 and 304, Map No. 18-04-11
(Ogle-Childs)

Dear Kent:

Enclosed is the original and one copy of a completed application for plan amendment and zone change to Marginal Lands for the above-referenced property. Also enclosed is a check in the amount of $6010.00 which is the fee for a combined minor plan amendment and zone change application (without exception). The same property was subject of a similar application (PA 02-5838) that was withdrawn last December. This application is substantially different primarily because Mr. Setchko's forest capability analysis has been supplemented to respond to the issues that were raised by Mr. Just and his Goal One Coalition. The analysis of water quality and quantity availability is the same report prepared by Phil Stallings of EGR for the previous application.

We hope Jerry Kendall is the planner who is assigned to review this application since he worked on the first application and is familiar with the issues and the property. In any event, please ask the assigned planner to contact me with any questions or if additional information is required..

Sincerely,



Michael E. Farthing

MEF/alp
Enclosure

APPLICATION FOR
MINOR PLAN AMENDMENT AND ZONE CHANGE

From:	**AGRICULTURE and E40, EXCLUSIVE FARM USE ZONE**
To:	**MARGINAL LANDS and ML,, MARGINAL LANDS ZONE**
File No.:	**PA _____**
Co-Applicants:	**BRAD and JULIE OGLE – MARK and CINDI CHILDS**
Agent:	**MICHAEL E. FARTHING**

The following application supports the County's approval of the proposed plan amendment and concurrent zone change for the "Subject Property" as described below.

I. SUMMARY OF PROPOSAL

This combined application proposes to change the Lane County Rural Comprehensive Plan ("RCP") designation for approximately 73 acres located on the southwest edge of the Eugene Urban Growth Boundary (UGB) from Agriculture to Marginal Lands and the Zoning Designation from E40, Exclusive Farm Use, to ML, Marginal Lands.

II. GENERAL FACTS REGARDING THE SUBJECT PROPERTY

A. Location, Land Use Designation, Site Description and Other Characteristics

Location:
The property subject to this application ("Subject Property") is identified as portions of Tax Lots 303 and 304 on Assessor's Map No. 18-04-11. See attached Exhibit "A". It contains approximately 73 acres and is also referred to in the context of the marginal lands criteria set forth in ORS 197.247 (1) [1991 ed.] and this application as "the proposed marginal land".

The Subject Property is located just south of the Metro Urban Growth Boundary in southwest Eugene. It is accessed from the southern end of Timberline Drive. See Exhibit "A". The Subject Property was part of a larger tract ("the original tract") that contained approximately 114 acres. The northern 40 acres was designated and zoned Marginal Lands in 1992 (PA 0221-92).

Surrounding Lands and Zoning History
The Subject Property is located within Lane County Zoning Plot #319. See attached Exhibit "B". The original tract was designated Agriculture and zoned E-40, Exclusive Farm Use, when the Lane County Rural Comprehensive Plan was first adopted in 1984. The northerly 40 acres of the original tract was changed from E-40 to ML in 1992 (PA

0221-92). The staff report in that planning action indicated that the entire tract qualified as marginal lands. The land has never been planted in crops and only limited grazing has occurred on the property in the past. See attached Exhibit "C" aerial photos (current, 1936, 1947 and 1952). The original tract's previous owners had owned the tract since 1962. They signed an affidavit stating that during their entire ownership (including the 1-1-78 through 1-1-83 Marginal Lands prescribed period), they did not exceed the marginal lands gross income amount that would disqualify the property from Marginal Lands consideration. See attached Exhibit "D" (Affidavit of John F. Breeden).

The city limits of Eugene is the northern boundary of the original tract and will be developed to urban densities as additions to Somerset Hills Subdivision. The property immediately to the east, and a portion of the land to the south is zoned F-2, Impacted Forest Land. The F-2 lots to the south have residences quite close to the Subject Parcel's boundary and are accessed from Lorane Highway. A portion of the southern boundary also abuts a parcel that is zoned Marginal Lands. To the west is a parcel zoned E-40 that is vacant and likely qualifies for Marginal Land status. There are a variety of rural residential lots along the Bailey Hill and Lorane Highway corridors to the south and east of the subject parcel. The predominant character of the land is rural in nature with residences located on many of the surrounding resource properties. See Exhibit "B", Zoning Map. There are no active commercial farm or forest operations being conducted on adjacent or nearby properties. See Exhibit "C", aerial photos.

The proposed zone change to Marginal Lands would closely match the character of the surrounding parcels that are also rural residential/limited resource in character. The proposed zone change and the subsequent residences would not interfere with or hinder adjacent uses or cause any change in the nature of the surrounding area. The proposed zone change will reflect the intent of the Marginal Lands designation and will provide for an orderly transition and buffer from the urban uses to the north and the mixed rural and resource designations to the south, east and west.

Site Description:
The Subject Property was part of a larger tract ("the original tract") that was 113.74 acres in size and located on the south face of the ridge line at the southwesterly edge of Eugene's Urban Growth Boundary. It was separated by a land partition, the final plat of which was recorded on May 23, 1994, copy of which is attached as Exhibit "E", and included two parcels which are also known as Tax Lots 303 (Childs) and 304 (Ogle). See Exhibit "A", Assessor's Map.

Site topography consists almost entirely of south facing slopes of generally moderate 10-30% grades. The flora consists predominantly of seasonal grasses, Poison Oak, Black Oak, White Oak, Incense Cedar, Ponderosa Pine, and Douglas Fir. The soils, as discussed below, are very poor with most not attaining recognized agricultural and forestry classes or indexes necessary to conduct resource activities on any type of sustained basis. Photos of the site are attached as Exhibit "F".

Improvements:
Both lots within the original tract have residences constructed within the past five years. The residences are located on the northerly portion of each lot on land that is zoned ML. They are served by graveled drives that enter the property from the north by easement from the terminus of Timberline Drive. EWEB provides electrical service and Qwest provides phone service in the area of the access drive. Individual wells and septic systems will be provided for parcels created within the Subject Property. The Bonneville Power Administration and EWEB have power line corridors that traverse and cross paths in the middle and southerly portion of the Subject Property. The power line easements and their associated gated access roads encumber approximately 9.7 acres (13%) of the site. Copies of those easements are attached as Exhibits "G" (BPA) and "H" (EWEB). The access drive to the two residences connects to the easement corridor roadways.

Soils:
The Soil Survey for Lane County Oregon (9/87) prepared by the Soil Conservation Service (SCS), map # 90, provides information and mapping of the soil types on the property and in the surrounding area. An L-COG soil map for the Subject Property and surrounding area is attached as Exhibit "I" which identifies the location of the various soil types and also includes a list of the soils for Tax Lots 303 and 304.

The Subject Property is composed entirely of Class VI and Class VII soils that are not rated for, and are unsuitable for farming practices. In addition, most of the property (78% - 57.48 of 73.74 acres) has no conifer site index rating and the soils are not considered capable of sustaining commercial forestry stands. The Applicants' forester, Marc Setchko, has prepared an extensive analysis of the timber growing potential of the Subject Property, copy of which is attached as Exhibit "J". A breakdown of the soil types for the Subject Property, based on the L-COG soil data, is set forth in Mr. Setchko's report. In addition to this published soil data, during his on-site analysis of the Subject Property, Mr. Setchko identified areas that contained exposed rock or were underlain with a rocky layer which are not capable of supporting timber growth of any kind. See Exhibit "J", p9.

Wetlands:
The National Wetlands Inventory Map indicates no jurisdictional wetlands on the site. A small, unnamed seasonal stream runs for approximately 7-9 months over a limited area in the southerly portion of the tract.

Wildlife:
The Lane County Wildlife Inventory Map indicates that the Subject Property is located in a Major Big Game Range. The allowed 10 and 20-acre minimum parcel sizes in the ML zone provide adequate protection for wildlife in this area adjacent to the city limits. This is consistent with land use policy and previous decisions involving similar land use applications.

Hazards:
The Subject Property in not located within a floodway or flood plain according to FEMA records. No other natural hazards exist on the parcel.

Other Resources:
No historic, archaeological, scenic, or other resource features have been identified on the parcel nor is it part of any Lane County inventory of such resources.

B. Services:
The Subject Property is fully serviced with rural services as specified in RCP Goal 11: Public Facilities and Services, Policy 6.j.

Fire:	Bailey-Spencer Rural Fire Protection District
Police:	Lane County Sheriff
Schools:	4-J School District
Sewer:	on-site individual septic
Water:	on-site individual well
Access:	Private access by easement via Timberline Road
Electricity:	EWEB
Telephone:	Qwest Communications
Solid Waste:	Glenwood Solid Waste Transfer Site

III. LANE CODE 16.400 PLAN AMENDMENT CRITERIA

A. Previous Marginal Lands Application

In addition to the Marginal Lands plan amendment application that was approved for a portion of the property in 1992 (PA 0221-92), the present Applicant submitted an application for a marginal land plan amendment (PA 02-5838) for the remainder of the site that was withdrawn last December before the County rendered a final decision. The Lane County Planning Commission had earlier voted unanimously to recommend that the Board of Commissioners grant final approval of that application. The present application is basically the same as the previous application except that Mr. Setchko's analysis of the forest capabilities of the Subject Property has been updated and consolidated to incorporate much of the information and analysis that was introduced with the 2002 application.

B. The Carver Case

On June 8, 2005, the Land Use Board of Appeals ("LUBA") issued a final opinion in Just v. Lane County, LUBA No. 2005-029 ("Carver"), which affirmed the Lane County Board of Commissioners' ("the Board") approval of a plan amendment from Forest Land to Marginal Land. The property involved is located just east of the Subject Property on Blanton Heights and is owned by Carver. The case is important for several reasons including the fact that many of the arguments raised by the petitioner in that case, Jim Just, were also raised by Mr. Just in the now-withdrawn application for the Subject Property. In Carver, LUBA dismissed all of Mr. Just's arguments and affirmed the County's approval in its entirety.

For example, LUBA confirmed that use of 1983 timber prices was appropriate in applying the Marginal Lands' "income test" for forest operations in ORS 197.247 (1). LUBA also confirmed that a 50-year growth cycle could be used in applying the same test. Finally, LUBA spent considerable time addressing and dismissing Mr. Just's arguments about which published soil information should be used by the County in applying the Marginal Lands criteria. In the end, none of Mr. Just's allegations of error were sustained. The methodology suggested by the Board in its 1997 Interpretation of the Marginal Lands criteria (attached as Exhibit "K") was affirmed in all respects by LUBA whose overall reasoning was that all of the County's directives in the Interpretation were reasonable.

For these reasons, we have followed the Board's Interpretation to the fullest extent possible. This is particularly the case with Mr. Setchko's analysis of the forest capability of the Subject Property.

C. Plan Amendment Criteria at LC 16.400(6)(h)(iii):

(iii) The Board may amend or supplement the Rural Comprehensive Plan upon making the following findings:

(aa) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan component or amendment meets all applicable requirements of local and state law, including Statewide Planning Goals and Oregon Administrative Rules.

This criterion establishes the parameters for identifying all the criteria that must be addressed with substantial evidence by a successful applicant for a Marginal Lands plan amendment and zone change. A minor amendment is one that amends only the Plan Diagram. A major amendment is any other Plan amendment. The change sought by this request is a minor amendment.

This proposal requests that the RCP designation for the Subject Property be changed from Agriculture to Marginal Lands. This application provides substantial evidence that addresses the applicable requirements of Lane Code, RCP policies, and the Statewide Planning Goals. Specific findings are set forth below under each separate Lane Code and

statutory criterion which is in italics:.

> *(bb) For Major and Minor Amendments as defined in LC 16.400(8)(a) below, the Plan amendment or component is:*
>
> *(i-i) necessary to correct an identified error in the application of the Plan; OR*

The Subject Property was designated Agriculture and zoned E40 as part of the RCP adoption process in 1984. While this was not necessarily an error at the time, it was done pursuant to County policy which determined that lands that might qualify as marginal lands should be addressed subsequently on a case-by-case basis pursuant to policies in the RCP and the statutory criteria in ORS 197.247.

> *(ii-ii) necessary to fulfill an identified public or community need for the intended result of the component or amendment; OR*

Not applicable.

> *(iii-iii) necessary to comply with the mandate of local, state or federal policy or law; OR*

Not applicable.

> *(iv-iv) necessary to provide for the implementation of adopted Plan policy or elements; OR*

ORS 197.247 (1991 ed.) authorizes counties to designate land as marginal lands. Lane County has acted to utilize this authority through the adoption of RCP Goal 3, Policy 14 and Goal 4, Policy 3. Those policies require an applicant for a marginal lands designation and zoning to address and satisfy the requirements of ORS 197.247 (1991 ed.) and applicable County policies and requirements. The Applicant is implementing policies in the RCP which allow qualified resource lands to be designated as Marginal Lands rather than Agriculture or Forest.

In order to aid applicants, the staff and the general public in addressing the Marginal Lands criteria, the Board of Commissioners, in 1997, adopted an interpretation of and supplement to the County's Marginal Lands information sheet ("the Board Interpretation"), copy of which is attached as Exhibit "K". The Board Interpretation clarifies how the Marginal Lands statute and criteria are to be applied in specific situations by addressing seven issues and providing policy direction for each. As mentioned earlier, the Board Interpretation has particular relevance to this application in the context of evaluating the site's ability to grow timber. That relevance has been substantially reinforced by LUBA's decision in the Carver case. Mr. Setchko, the Applicant's forester, was very careful to follow and comply with the direction provided by that Interpretation. The following addresses the relevant criteria in ORS 197.247.

ORS 197.247(1)(1991 ed.) identifies the following standards:

(a) The proposed marginal land was not managed, during three of the five calendar years proceeding January 1, 1983, as part of a farming operation that produced $20,000 or more in annual gross income or a forest operation capable of producing an average, over the growth cycle, of $10,000 in annual gross income; and.

(b) The proposed marginal land also meets at least one of the following tests:

(A) At least 50 percent of the proposed marginal land plus the lots or parcels at least partially located within one-quarter mile of the perimeter of the proposed marginal lands consists of lots or parcels of 20 acres or less in size on July 1, 1983; or

(B) The proposed marginal land is located within an area of not less than 240 acres of which at least 60 percent is composed of lots or parcels that are 20 acres or less in size on July 1, 1983; or

(C) The proposed marginal land is composed predominantly of soils in capability classes V through VIII in the Agricultural Capabilities Classification System in use by the United States Department of Agriculture Soil Conservation Service on October 15, 1983, and is not capable of producing fifty cubic feet of merchantable timber per acre per year in those counties east of the summit of the Cascade Range, and eight-five cubic feet of merchantable timber per acre per year in those counties west of the summit of the Cascade Range, as that term is defined in ORS 477.001(21).

The Applicant has addressed subsections (a) and (b)(C) in this application for designating the Subject Property as suitable for Marginal Lands. The following findings address each of these criteria:

ORS 197.247(1)(a):

The proposed marginal land was not managed, during three of the five calendar years proceeding January 1, 1983, as part of a farm operation that produced $20,000 or more in annual gross income or a forest operation capable of producing an average, over the growth cycle, of $10,000 in annual gross income.

Farming Operation: An affidavit from the owner of the Subject Property during the five years preceding January 1, 1983, conclusively establishes that it was not part of a farm operation that produced $20,000 or more in annual gross income at any time during the statutory time period (1978-1983). See Exhibit "D". The Subject Property has never been actively farmed since that prior owner acquired the land in 1962 and, in fact, likely has never been farmed or cultivated. See Exhibit "C"

Forest Operation: Based on aerial photos of the Subject Property (See attached Exhibit "C"), it has not nor has it likely ever been actively managed as a forest operation. The reason is obvious: an overwhelming majority of the soils on the site are very poor for the production of trees. In fact, as is explained in the attached forester's report (Exhibit "J"),

there are significant areas that have exposed rock or are underlain with a rocky layer just below the surface of the soil. These areas cannot and will not grow trees of any kind and therefore have no forest productivity value assigned to them. Also, there are two major electrical power corridors that extend through the Subject Property and even intersect on-site with each other. Together, these areas occupy 9.7 acres (13%) of the Subject Property and are described in recorded easements, copies of which are attached as Exhibit "G" (BPA) and "H" (EWEB). These areas are not capable of producing any merchantable timber growth because of the restrictions in those easements that prevent the underlying fee owner from using it to grow merchantable timber.

Mr. Setchko's analysis of the timber growing potential of the Subject Property (Exhibit "J") establishes that it cannot be managed as a forest operation capable of producing an average, over the growth cycle, of $10,000 in annual gross income. This conclusion was based on a detailed analysis of the existing soils, their ability to grow timber (primarily Douglas fir but also Ponderosa pine) and conversion of that growth potential into dollars based upon log prices in 1983. This methodology is dictated by the Board Interpretation (See Exhibit "K", Direction for Issue 4). The analysis also used a fifty year growth cycle as directed by the Board Interpretation . (See Exhibit "K", Direction for Issue 5). The Applicants' forester is highly qualified with both professional credentials and 27 years of field experience. Mr. Setchko's analysis is attached as Exhibit "J" and includes many supporting exhibits.

Mr. Setchko had prepared an analysis and supplemental materials for the previously-withdrawn plan amendment application that were challenged by several opponents but one in particular, i.e. Goal One Coalition. Goal One contested Mr. Setchko's analysis of the "income test" set forth in ORS 197.247(1)(a) ($10,000 average annual gross income for a forest operation). Goal One made several allegations, none of which have any scientific foundation or legal support. In anticipation of Goal One appearing in this process, their previous allegations are addressed separately with references to Mr. Setchko's updated report (Exhibit "J" and also referred to as "the Setchko report") and the recently decided Carver Decision.

(1) The Setchko Report failed to use current prices.

The Setchko Report is based on 1983 prices as specifically directed by the Board Interpretation (See Exhibit "K", Direction to Issue 4). The rationale for the Board's directive, based on clear legislative intent, was that marginal lands would be identified as those lands that were not making a significant contribution to commercial forestry in 1983 when the marginal lands statute was enacted. The Board recognized the importance of using 1983 log prices in order to be consistent with the dollar amounts set forth in ORS 197.247(1)(a). See Just v. Lane County, LUBA No. 2005-029, decided 06-08-05 (also known as "Carver" or "the Carver Decision").

(2) The Setchko Report failed to consider timber productivity for soils not rated

for Douglas fir.

In fact, the Setchko Report did assign a forest site index to those soils that did not have a site index rating in the Soil Survey of Lane County through use of information generated by Lane County and the State Forester's office. The Setchko Report's calculation of site index ratings for the previously unrated soils is consistent with LCDC regulations for providing such ratings. See OAR 660-006-0005(2). It should be noted that there is no direct linkage between the Marginal Land statute and LCDC's regulations pertaining to the forestry goal.

(3) The Setchko Report failed to consider productivity for timber species other than Douglas fir.

The initial response to this allegation is that no other tree species is nearly as valuable as Douglas fir. If a site is not capable of producing an average of $10,000 in annual gross income from Douglas fir, then there is no other tree species, e.g. red cedar, alder, ponderosa pine, white oak, etc., that could produce any more than the calculated figures for Douglas fir. This was the conclusion reached by the Setchko Report.

The Setchko Report addresses some other trees species, i.e. black cottonwood, Oregon ash, red alder and hybrid poplar, and concluded there is not enough moisture to sustain these species. Similarly, the Report concluded that red cedar and hemlock will not grow on the site due to moisture constraints. As for other species, the overriding factor is that there is no market for these species and therefore they do not come close to having the value that Douglas fir has in the present market.

Based on the experience of Mr. Setchko, the lack of published data for any species other than Douglas fir, the absence of an established market in the area for any other tree species, and the lack of any evidence from the opponents that contradicts or conflicts with the findings and conclusions of his previous reports, it can be concluded that no other tree species could produce an average annual income that would be anything close to what Douglas fir could produce from the Subject Property.

(4) The Setchko Report used a 60 year growth cycle to calculate average income.

The Setchko Report in its final form was based on a 50-year growth cycle. There was very little change in the outcome. Using a 50-year cycle, as urged by Goal One and required by the Board Interpretation, has resulted in an estimated average annual gross income of $5173 per year. That same figure is reflected in the current report prepared by Mr. Setchko. See Exhibit "J" and the Carver Decision.

Conclusion for ORS 197.247(1)(a): Based on the Setchko Report (Exhibit "J" attached hereto), there is substantial evidence in the record to support the conclusion that the Subject Property was not nor could it have been part of a forest operation (for any of the five years preceding January 1, 1983) that was capable of producing an average, over the growth cycle, of $10,000 in annual gross income for Douglas fir or for any other tree species.

ORS 197.247(1)(b)(C):

> *The proposed marginal land is composed predominantly of soils in capability classes V through VIII in the Agricultural Capabilities Classification System in use by the United States Department of Agriculture Soil Conservation Service on October 15, 1983, and is not capable of producing fifty cubic feet of merchantable timber per acre per year in those counties east of the summit of the Cascade Range, and eight-five cubic feet of merchantable timber per acre per year in those counties west of the summit of the Cascade Range, as that term is defined in ORS 477.001(21).*

Of the three optional criteria set forth in ORS 197.247 (1)(b), the Applicant has chosen to address subsection (C) as quoted above. This criterion has two parts: (1) the proposed marginal land is composed predominantly of soils in capability classes V through VIII and (2) is not capable of producing 85 cubic feet of merchantable timber per acre per year. The Subject Property satisfies both of these criteria.

L-COG soils information indicates that Subject Property is composed entirely of Class VI and VII soils, which establishes that the first part of the test is easily satisfied.

The attached report prepared by Mr. Setchko (Exhibit "J") assigns cubic foot per-acre per-year ("cf/ac/yr") values to each soil type present on the Subject Property even though some soils (Panther and Philomath) have no Douglas fir site index or cf/ac/yr ratings. Ponderosa pine calculations were included by Mr. Setchko because of the possibility that the pine would outproduce Douglas fir in certain areas of the Subject Property. The report concludes that the Subject Property has an overall capability of producing 62.1 cf/ac/yr which is well below the statutory standard.

In the previously withdrawn plan amendment, Mr. Setchko's conclusion for this criterion was challenged by Goal One on several grounds. Each of those allegations is addressed by the Setchko Report as follows:

(1) The Setchko Report fails to address productivity of other species.

The 85 cf/ac/yr threshold is qualified by the fact it refers to "merchantable timber". This means that productivity is not the sole measurement but rather it must be the growth of a tree species for which there is a market and someone will pay money for the wood fiber produced. This is consistent with the Setchko Report's conclusion that Douglas fir is by far the most merchantable species that

can be grown on the Subject Property and that all other species either have no market or are of little merchantability (e.g. white oak for firewood).

Goal One did not submit any hard evidence or data that disputes the overall conclusion of the Setchko Report that Douglas fir is, by far, the most valuable tree species that can be grown on the Subject Property . Further, the lack of growth and price data regarding other species is further indication that they have little or no merchantability. In this case, Mr. Setchko did address the productivity of ponderosa pine and still found the Subject Property did not come close to the 85 cf/ac/yr standard.

The conclusion from the evidence in the record is that the productivity of Douglas fir is the only viable statistic that needs to be evaluated under the 85 cf/ac/yr standard. All other tree species do not come close to the value and merchantability of Douglas fir.

(2) The Setchko Report failed to establish growth ratings for soils not rated by the National Resources Conservation Service (NRCS).[1]

As discussed previously, the Setchko Report does assign cf/ac/yr ratings to all the soils on the Subject Property.

(3) The Setchko Report fails to address the productivity of the proposed marginal land.

Goal One previously argued that each tax lot (Tax Lots 303 and 304) must be addressed separately. There is no legal or statutory basis for separating and analyzing each lot separately. The statute refers to "the proposed marginal land" which, in this case, is the 73+ acres that comprises Tax Lots 303 and 304, but not the 40 acres that was previously zoned Marginal Lands in 1992. The fact that there are two separate owners has no relevance when both properties are combined into a single application. The "proposed marginal land" is the total acreage for which a Marginal Lands designation and zoning are sought.

(4) The Setchko Report did not adequately address the productivity of "forest tree species".

This objection is similar to previous arguments and the responses to those arguments are incorporated by this reference. Douglas fir is the only tree species that has any significant value and the soils on the Subject Property are not capable of producing Douglas fir growth that exceeds the statutory threshold of 85 cf/ac/yr.

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[1] The NRCS was formerly known as the Soil Conservation Service (SCS).

Conclusion: The Subject Property qualifies under ORS 197.247(1) as marginal land because:

(a) it was not managed during three of the five calendar years preceding January 1, 1983 as part of a farm operation that produced $20,000 or more in annual gross income;

(b) it was not managed as a part of a fores operation during that same time period which was capable of producing an average, over the growth cycle, of $10,000 in annual gross income,

(c) it is composed predominantly of soils in agricultural capability classes V through VIII, and

(d) it is not capable of producing 85 cubic feet of merchantable timber per acre per year.

There is substantial evidence in the record, primarily in the form of Mr. Setchko's enclosed analysis (Exhibit "J"), to support each of these conclusions. The previous opponents, Goal One in particular, did not submit any evidence, documentation or expert testimony that refutes or contradicts these findings with regard to the resource capabilities of the Subject Property as measured by the statutory standards and criteria in ORS 197.247.

Further, the policies in the RCP, specifically RCP Goal 3, Policy 14 and RCP Goal 4, Policy 3, authorize and allow certain qualified resource lands to be designated and zoned marginal lands. Approval of these applications implements these policies which have been acknowledged by the Land Conservation and Development Commission to be in conformity with Statewide Planning Goals and ORS 197.247 (1991 ed.).

(v-v) otherwise deemed by the Board, for reasons briefly set forth in its decision, to be desirable, appropriate or proper.

For the reasons set forth under the preceding criterion, approval of this application for plan amendment and zone change to Marginal Lands is desirable, appropriate and proper.

(cc) For Minor Amendments as defined in LC 16.400(8)(a) below, the Plan amendment or component does not conflict with adopted Policies of the Rural Comprehensive Plan, and if possible, achieves policy support.

There are no policies in the adopted and acknowledged RCP that conflict with this request for plan amendment. As discussed in the previous section, there are policies in the RCP that specifically support and encourage approval of marginal lands applications for qualified property. This application addresses and satisfies the marginal lands criteria that are set forth in ORS 197.247 as they apply to the Subject Property.

Approval of this plan amendment is also consistent with the Board's Interpretation of the Marginal Lands statute (ORS 197.247) and its application to individual requests for plan amendment. Mr. Setchko used price information for the period 1978-1983 and his analysis of productivity was based on a 50-year growth cycle. Overall, the application is supported by detailed and thorough analysis provided by a qualified and experienced forester. All of this was done in conformance with direction provided by the Board's Interpretation, ("Exhibit K") and the standards, guidelines, and requirements of professional foresters.

(dd) For Minor Amendments as defined in LC 16.400(8)(a) below, the Plan amendment or component is compatible with the existing structure of the Rural Comprehensive Plan, and is consistent with the unamended portions or elements of the Plan.

As discussed in previous sections, this plan amendment application is consistent with and satisfies the criteria that are referenced and adopted by specific policies in the RCP. Those policies are RCP Goal 3, Agricultural Lands, Policy 14 and RCP Goal 4, forest Lands, Policy 3 which specifically allow qualified resource lands to be designated and zoned marginal lands. Approval of this amendment request is consistent with the RCP policies for farm (Goal 3) and forest (Goal 4) lands.

The 1997 Board Interpretation recognizes this consistency. It states under "Issue 1" :

> "Marginal land is intended to be a sub-set of resource land, i.e., there are 'prime' resource lands and 'marginal' resource lands. The marginal lands are to be available for occupancy and use as smaller tracts than are required in the better resource lands. The criteria in the law define which lands may be designated as marginal. Evidence for this position is found in the legislative history and the fact that marginal lands are recognized in both Statewide Goal 3 - Agricultural Lands and Goal 4 - Forest Lands."

Marginal lands are resource lands that are intended for occupancy with limited rural residential development.

Based on the evidence in the record which addresses and satisfies the criteria in ORS 197.247 and the above-referenced RCP resource policies, it can be found that approval of this plan amendment is compatible with the existing structure of the acknowledged RCP and is consistent with the unamended portions and elements of the RCP.

C. Lane Code 16.400(8)

Additional Amendment Provisions. In addition to the general procedures set forth in LC 16.400(6) above, the following provisions shall apply to any amendment of Rural Comprehensive Plan components.

(a) Amendments to the Rural Comprehensive Plan shall be classified according to the following criteria:

(I) Minor Amendment. An amendment limited to the Plan Diagram only and, if requiring an exception to Statewide Planning Goals, justifies the exception solely on the basis that the resource land is already built upon or is irrevocably committed to other uses not allowed by an applicable goal.

This application for plan amendment only affects the Plan Diagram for the RCP. No text change to the RCP is proposed. No exception to Statewide Goals is required because the marginal lands designation is a sub-set of resource land and specifically allowed by Goal 3 and Goal 4 policies. This plan amendment is limited to the Plan Diagram and, therefore, is a minor amendment.

(c) Minor amendment proposals initiated by an applicant shall provide adequate documentation to allow complete evaluation of the proposal to determine if the findings required by LC 16.400(6)(h)(iii) above can be affirmatively made. Unless waived in writing by the Planning Director, the applicant shall supply documentation concerning the following:

(i) A complete description of the proposal and its relationship to the Plan.

A complete description of the proposed plan amendment is provided previously in this application (See Section II). As discussed earlier, the proposed plan amendment is consistent with and specifically allowed by policies in the RCP. The plan amendment will change the RCP Plan designation for the Subject Property from Agriculture to Marginal Lands.

(ii) An analysis responding to each of the required findings of LC 16.400(6)(h)(ii) above.

The previous discussion addresses LC 16.400(6)(h)(ii) in detail.

(iii) An assessment of the probable impacts of implementing the proposed amendment, including the following:

(aa) Evaluation of land use and ownership patterns of the area of the amendment.

The Subject Property is located one mile east of Bailey Hill Road between Lorane Highway and the city of Eugene. It is nearly adjacent to the Eugene Urban Growth Boundary with legal access from Timberline Road from Eugene. For a description of the surrounding area and zoning history, see Section II, A.

(bb) Availability of public and/or private facilities and services to the area of the amendment, including transportation, water supply and sewage disposal;

The Applicant hired EGR & Associates to prepare an aquifer analysis and assess whether additional residences and wells would adversely impact neighboring wells on the Subject Property or neighboring properties. Copy of that report is attached as "Exhibit "L". Aquifer pumping and recovery tests were performed and well logs from neighboring properties were examined as part of EGR's study which was to analyze and measure the impact from as many as seven additional homesites on the Subject Property.. EGR's Study concludes:

> "Per Lane County Code 13.050, we conclude that the underlying aquifer will yield an adequate residential water supply for the additional proposed dwellings without adversely affecting wells on adjacent properties or the underlying aquifer. Due to the additional demands of the aquifer caused by the sporadic domestic use of P-1 during the test, the results concluded in this report are conservative.
>
> Based on the aquifer test results, mathematical modeling and review of published information, the aquifer beneath the subject property can accommodate nine domestic use wells at normal or peak usage. Not every well drilled in the area will have the same production."

Based on this study prepared by qualified, licensed professionals, and the absence of any substantive evidence that contradicts or conflicts with the findings and conclusions of the EGR's Study, it can be found that there is adequate groundwater to accommodate seven additional homesites on the Subject Property.

As described previously, the Subject Property is served by all of the services required by RCP Goal 11, Policy 6j. These include schools, on-site sewage disposal, water supply, electrical service, telephone service, rural fire and police protection, and access to a solid waste disposal facility.

(cc) Impact of the amendment on proximate natural resources, resource lands or resource sites, including a Statewide Planning Goal 5 "ESEE" conflict analysis where applicable;

No sensitive wildlife habitat areas or any other Goal 5 resources have been inventoried or identified on the Subject Property. Therefore, a Goal 5 ESEE analysis is not required. Residential densities that will be allowed by Marginal Lands zoning for the Subject Property will not exceed any limits recommended by the Oregon Department of Fish and Wildlife (ODFW) as directed by RCP Goal 5, Flora and Fauna, Policy 11. The County and ODFW have implemented Policy 11 through application of County land use regulations, siting requirements and other elements of the County's rural resource zoning program.

(dd) Natural hazards affecting or affected by the proposal:

No natural hazards have been identified or inventoried on the Subject Property.

(ee) For a proposed amendment to a nonresidential, nonagricultural or nonforest designation, an assessment of employment gain or loss, tax revenue impacts and public service/facility costs, as compared to equivalent factors for the existing uses to be replaced by the proposal;

This criterion is not applicable because Marginal Lands is a resource plan designation in the RCP. The ML zone is also residential in that single-family residences are an outright, permitted use in the zone.

(ff) For a proposed amendment to a nonresidential, nonagricultural or nonforest designation, an inventory of reasonable alternative sites now appropriately designated by the Rural Comprehensive Plan, within the jurisdictional area of the Plan and located in the general vicinity of the proposed amendment;

The preceding response is also appropriate for this criterion.

IV. FINDINGS AND CONCLUSIONS RELATING TO THE STATEWIDE PLANNING GOALS

The Oregon Land Conservation and Development Commission ("LCDC") Goals and Guidelines ("the Goals") are incorporated herein by reference. The following discussion addresses applicable statewide goal statements as they relate to these particular circumstances and the land use change that is being requested.

Goal 1 - Citizen Involvement:
Goal 1 requires that citizens and affected public agencies be provided an opportunity to comment on the proposed amendment and zone change. Public notification in the form of mailed public notice has been sent by Lane County to affected agencies, including the Department of Land Conservation and Development and owners of record of nearby property in accordance with statutory and County notice requirements.

Goal 2 - Land Use Planning:
Goal 2 establishes a land use planning process and policy framework as a basis for all land use decisions, and requires development of an adequate factual base to support these decisions. A minor change is one that does not have significant effects beyond the immediate area of change, and is based on special studies or information. The justification for the specific change must be established by substantial evidence in support of the conclusion that the applicable criteria have been met.

Lane County has adopted a comprehensive land use plan amendment process with specific standards that must be addressed to justify a minor change. This process and the criteria that must be addressed have been acknowledged by LCDC to be consistent and in conformity with the Goals. Substantial compliance with the plan amendment criteria in LC 16.400 constitutes compliance with the applicable provisions. In addition, this plan amendment must address and satisfy the criteria set forth in ORS 197.247(1991 ed.). These applications are supported by substantial evidence upon which the Planning Commission and Board may conclude that the applicable criteria have been met.

Goal 3 - Agricultural Lands:
Goal 3 require preservation of agricultural lands. The Subject Property is not agricultural land as defined by Goal 3. It is entirely composed of soils that are Class VI and VII and is unsuitable for farming activities. RCP Goal 3, Policy 14 recognizes that some agriculturally-designated land can and should be redesignated and zoned as Marginal Lands.

Goal 4 - Forest Lands:
Goal 4 requires the preservation and conservation of forest land for forest uses. The Subject Property is not suitable for growing and sustaining commercial Douglas fir stands of timber. No other species would be as valuable and merchantable as Douglas fir. Zoning the property for Marginal Lands maintains the property in a resource zone and allows it to be used for limited resource uses.

Goal 5 - Open Spaces, Scenic and Historic Areas and Natural Resources:
Goal 5 requires the conservation of open space and protection of natural and scenic resources that include cultural, historic, scenic and wilderness area characteristics. The goal, as amended by OAR 660-23-000, contains policies and procedures for a variety of resources that are listed below. This administrative rule requires evaluation of these resources. OAR 660-23-10 and -20 includes definitions, standards and specific rules applicable to each Goal 5 resource.

There are no Goal 5 resources currently inventoried on the Subject Property as part of the RCP, except for its inclusion in the "Major Big Game Range" habitat area. The density allowed by the Marginal Lands zoning (10 and 20 acre minimum lot sizes) would provide adequate protection for wildlife and is consistent with other decisions involving similar land use applications. ODFW has no objection to the plan amendment.

Goal 6 - Air, Water and Land Resource Quality:
Goal 6 is intended to maintain and improve the quality of the air, water and land resources of the State. As it pertains to site-specific development, it requires that adequate protection measures be taken to assure the retention of air, water and land quality. Generally this means that development will be subject to the air and groundwater regulations promulgated by the State Department of Environmental Quality as administered by the Lane County Environmental Health Department and the Lane Regional Air Pollution Authority.

The aquifer study prepared by EGR & Associates demonstrates that groundwater supplies are

adequate to serve the intended residential uses.

Goal 7 - Areas Subject to Natural Disasters or Hazards:
Goal 7 is intended to protect life and property from natural hazards. There are no identified or inventoried potential hazards.

Goal 8 - Recreational Needs:
No scenic or recreational resources have been identified or inventoried on the site and this Goal has limited applicability.

Goal 9 - Economy of the State:
Goal 9's purpose is to diversify and improve Oregon's economy. This goal is primarily applicable to commercial and industrial development. Approval of this application will allow the Subject Property to be developed with 3 to 7 additional homesites. This Goal has limited applicability to this plan change.

Goal 10 - Housing:
Goal 10 is intended to provide for the housing needs of Oregon's citizens. This plan amendment and zone change request would facilitate the construction of housing on the site. As marginal resource land, the RCP and Goals recognize and allow limited residential development to occur on 10 and 20 acre parcels within the ML zone.

Goal 11 - Public Facilities and Services:
The purpose of Goal 11 is to provide for the planning and development of public facilities and services in a timely, orderly and efficient manner in order to support rural and urban development.

The Subject Property has access to the full range of public services specified for Communities in RCP Goal 11: Public Facilities and Services, Policy 6. j. See Section III. B.. No additional public facilities and services are available or will be required beyond the present level.

Goal 12 - Transportation:
Goal 12 is intended to provide and encourage a safe, convenient and economical transportation system. This goal does not address specific land use actions, such as this proposal, but is implemented at the comprehensive planning stage on an area-wide basis.

The Goal 12 administrative rules identify an additional aspect that comes into play if an amendment to an acknowledged comprehensive plan "significantly affects" a transportation facility. (OAR 660-012-0060). Approval of this plan amendment would not have a significant effect on any transportation facility because the number of trips generated by development of homesites on 3 to 7 lots can easily be accommodated on Timberline Drive which is the public street that provides access to the Subject Property. Goal 12 and Goal 12 rules have been addressed.

Based on this evidence, it can be found that the proposed amendment will not significantly affect a

transportation facility and that no further Goal 12 consideration is required.

Goal 13 - Energy Conservation:
This goal requires that land uses maximize conservation of all forms of energy based on sound economic principles. It is implemented by local plans and regulations that control location, orientation and density of development to minimize net energy consumption. Any development on the Subject Property will be subject to those rules.

Goal 14 - Urbanization:
The purpose of Goal 14 is to provide for the orderly and efficient transition from rural to urban land use. Approval of the plan amendment and zone change will not change the rural resource status of the Subject Property.

Goals 15-19 - (Willamette Greenway and Coastal Resources):
Goals 15 -19 are not applicable to this plan amendment and zone change request because they are geographically oriented to specific areas not located on or near the site.

V. FINDINGS AND CONCLUSIONS RELATING TO LANE CODE 16.252 ZONE CHANGE CRITERIA

Lane Code 16.252 provides:

(2) Criteria. Zonings, rezonings and changes in the requirements of this Chapter shall be enacted to achieve the general purpose of this Chapter and shall not be contrary to the public interest. In addition, zonings and rezonings shall be consistent with the specific purposes of the zone classification proposed, applicable Rural Comprehensive Plan elements and components, and Statewide Planning Goals for any portion of Lane County which has not been acknowledged for compliance with the Statewide Planning Goals by the Land Conservation and Development Commission. Any zoning or rezoning may be effected by Ordinance or Order of the Board of County Commissioners, the Planning Commission or the Hearings Official in accordance with the procedures in this section.

Consistency with the General Purpose of LC Chapter 16 and Not Contrary to the Public Interest:

This zone change application is consistent with the general purposes of LC Chapter 16 as set forth in LC 16.003 in that:

1) In conformity with various development rules discussed above, the property will be developed commensurate with the character and physical limitations of the land and will thus promote the health, safety and general welfare of the built environment;

2) It will provide home construction opportunities that will aid the economy;

3) It will conserve farm and forest lands by locating residential opportunities within a resource zone that allows limited residential development.

4) It will aid the provision of affordable housing that allows reasonable selection of a place to live;

5) By its location along the edge of the Metro UGB, it will provide for the orderly and efficient transition from rural to urban lands and the efficient provision of public facilities and services;

6) By the use of a common driveway, and by eliminating the opportunity for traffic-intensive land uses, it will encourage the safety of the transportation system;

7) By virtue of regulations discussed above, it will protect the quality of the land, air and water of the county and will protect life and property in areas subject to flooding;

Also, because it is consistent with the policies of the RCP and Statewide Planning Goals, it is not contrary to the public interest. See sections III and IV above.

Consistency with the Purposes of the Marginal Lands Zoning District:

This application is consistent with the general purposes of LC 16.214 in that:

1) It provides an alternative to more restrictive farm and forest zoning.

2) It will allow any of the uses permitted in the Marginal Lands zoning district and thereby provide opportunities for persons to live in a rural environment and to conduct intensive or part-time farm or forest operations.

3) It is being applied to property in accordance with Lane Code Chapter 16 criteria and procedures, RCP plan policies and criteria in ORS 197.247(1991 ed).

Consistency with the Rural Comprehensive Plan:

See Section III above.

Consistency with Statewide Planning Goals for Unacknowledged Portions of Lane County:

Because there are no unacknowledged portions of Lane County, this criterion is not applicable.

CONCLUSION:

Based on the substantial evidence presented above, subject application for plan amendment and zone change meets and satisfies all of the relevant criteria and should be granted approval.

EXHIBITS:

Exhibit "A"	Assessor's Map No. 18-04-11and adjacent maps
Exhibit "B"	Lane County Zoning Plot Map #319
Exhibit "C"	Affidavit of John F. Breeden
Exhibit "D"	Aerial Photos of Subject Property
Exhibit "E"	Final Partition Plat (No. 94-PO510)
Exhibit "F"	Site Photos
Exhibit "G"	BPA Transmission Line Easements
Exhibit "H"	EWEB Transmission Line Easements
Exhibit "I"	L-COG Soil Map for Subject Property
Exhibit "J"	Forest Productivity Analysis, prepared by Marc Setchko
Exhibit "K"	Interpretation of Marginal Lands Ordinance by Lane County Board of Commissioners (1997)
Exhibit "L"	Aquifer Analysis Prepared by EGR and Associates

A & T MAP

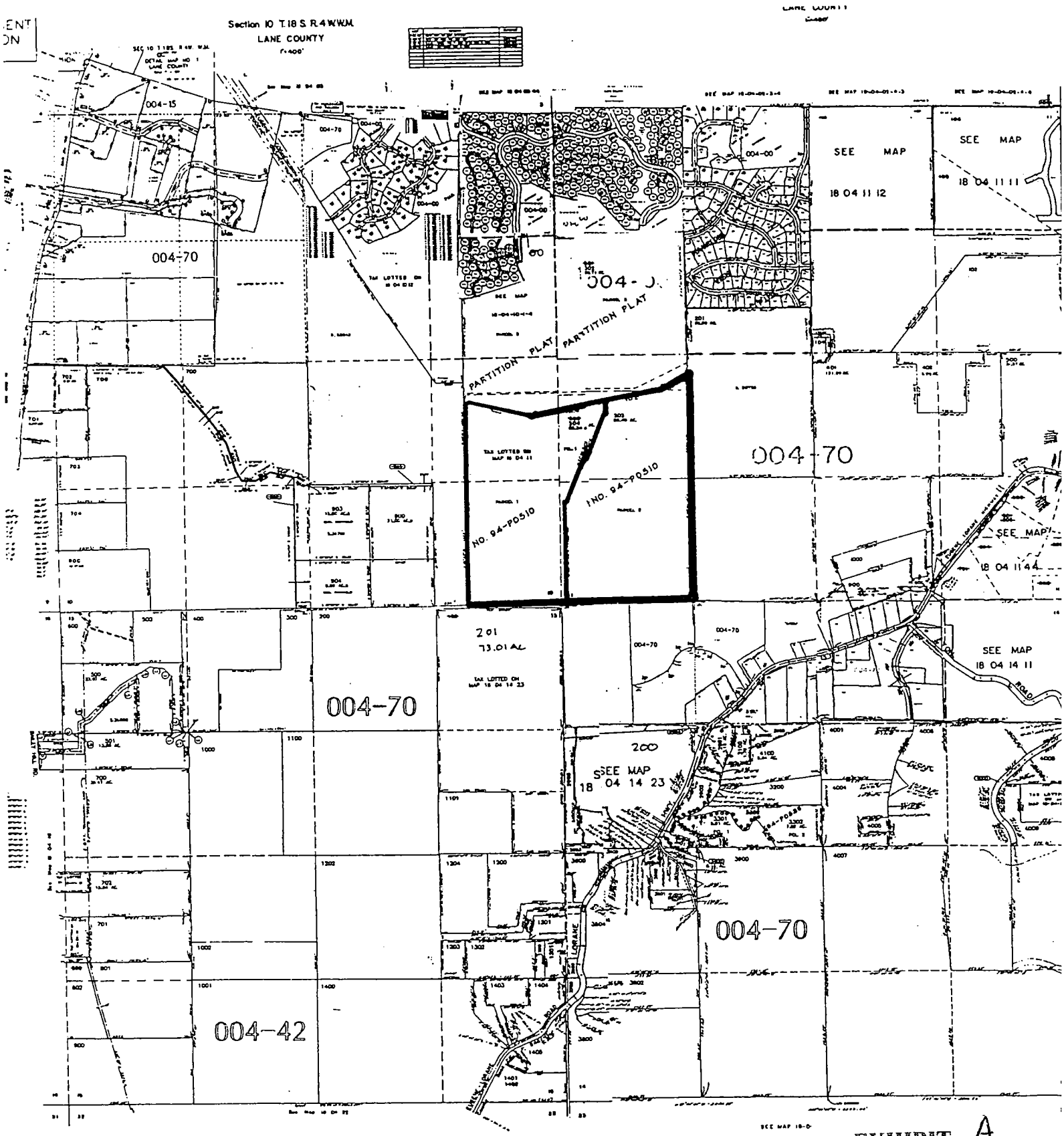


EXHIBIT A
Page 1 of 1

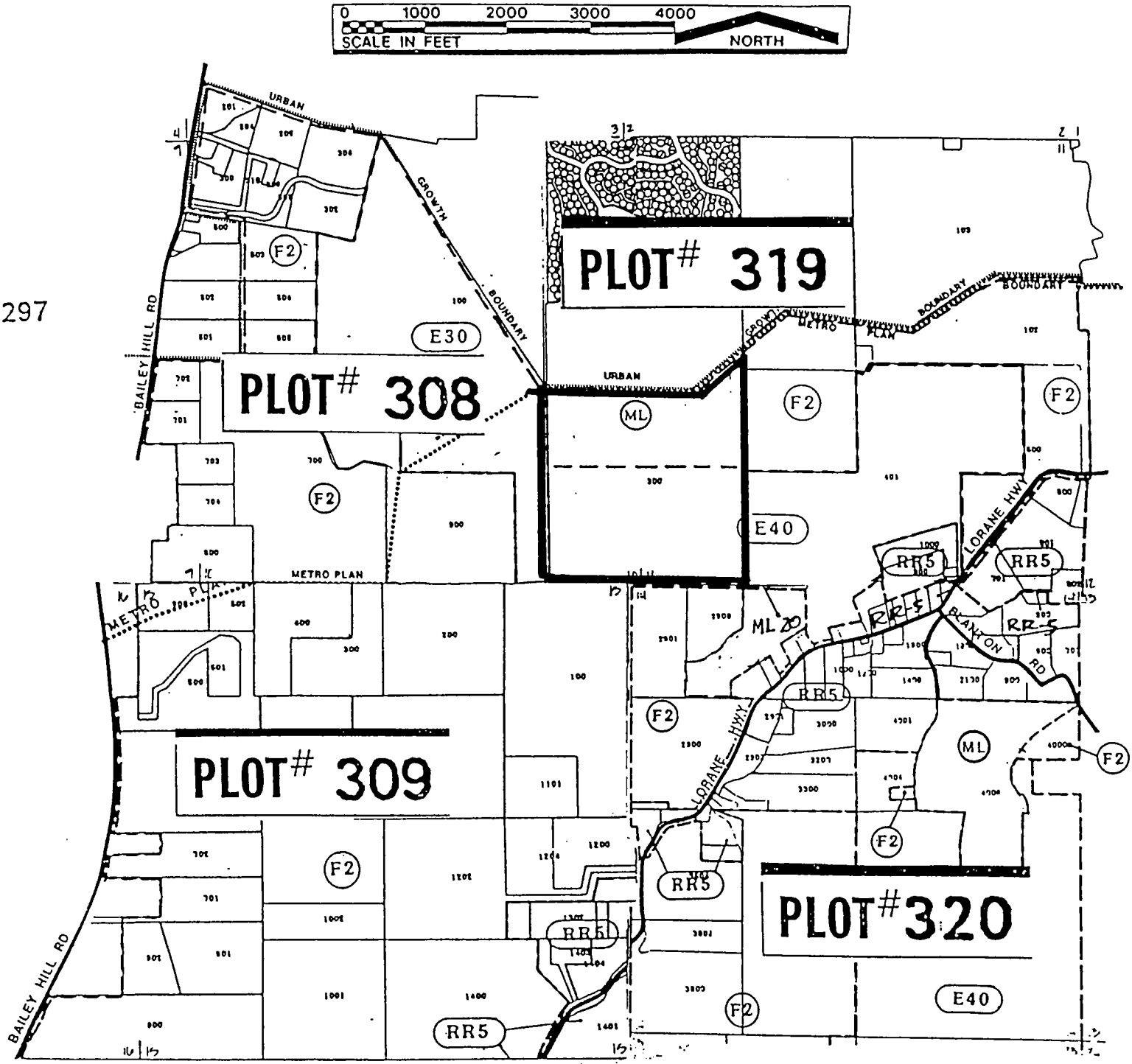
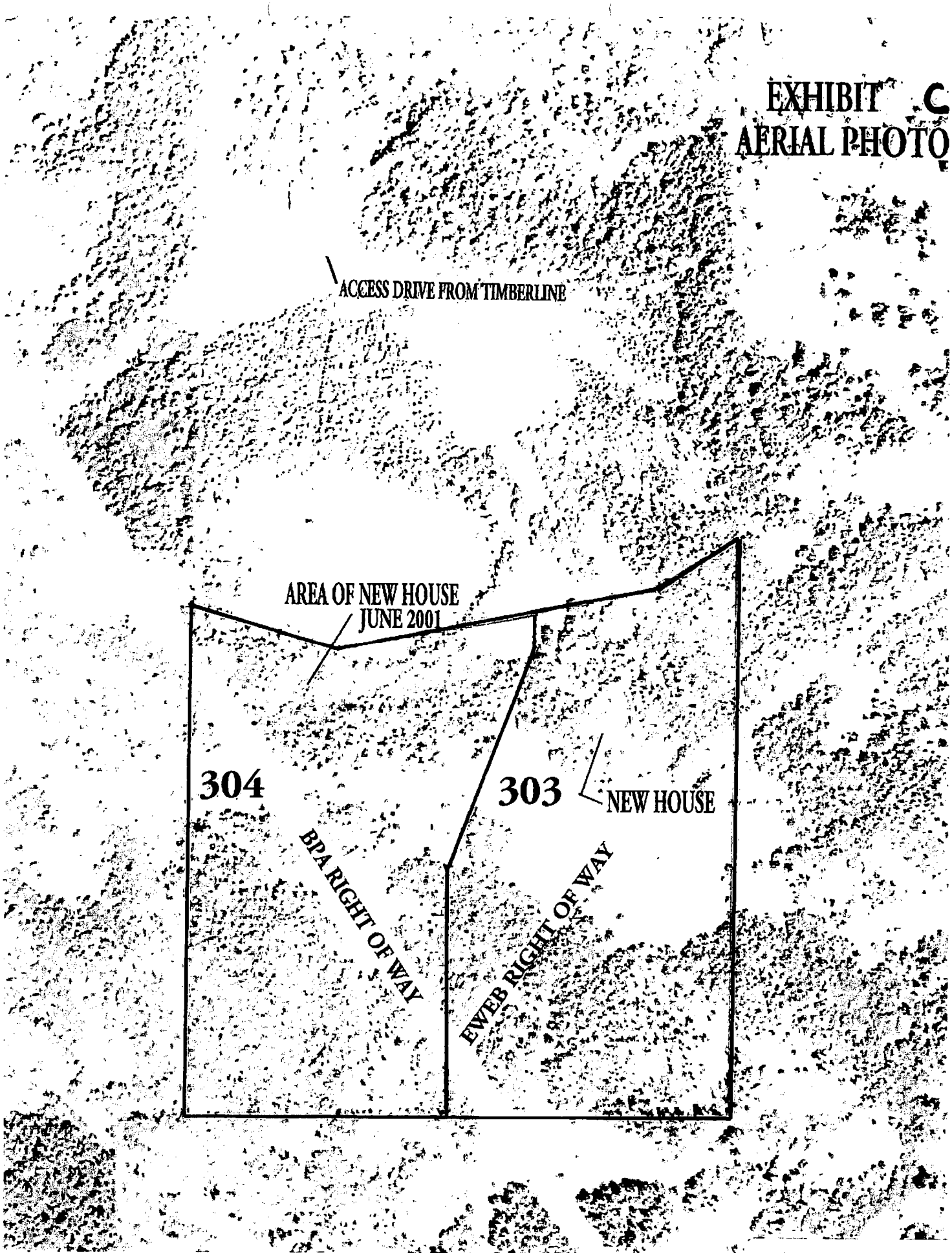


EXHIBIT B
Page 1 of 1

EXHIBIT C
AERIAL PHOTO



OGLE 1936 PARCEL

E-323

EXHIBIT C
Page 2 of 4

OGLE PARCEL IN 1947

-15 PS)(8-15-36 11A)(12-15000) WILLAMETTE VALLEY PROJECT ORE.

3938-

EXHIBIT C

OGLE PARCEL IN 1952 (AUGUST PHOTO)

EXHIBIT C
Page 4 of 4

AFFIDAVIT

Bailey Hill South, a Partnership, owns approximately 113 acres of property immediately south of the Eugene city limits which is identified as Tax Lot 300 on Assessor's Map 18-04-11. The subject property was purchased by Breeden Bros., Inc. (dba Bailey Hill South, a Partnership) on May 2, 1962 (Reel 194, Instrument #69289). I hereby certify that this property was not managed during any three calendar years between January 1, 1978 and January 1, 1983, or at any other time since 1962, as part of a farm operation that produced $20,000 or more in annual gross income or a forest operation capable of producing an average, over the growth cycle, of $10,000 in annual gross income.

John F. Breeden, General Partner
Bailey Hill South, a Partnership

STATE OF OREGON)
)ss
County of Lane)

The foregoing instrument was acknowledged before me this 22 day of January, 1992, by John F. Breeden of Bailey Hill South, a Partnership.

Notary Public for Oregon
My commission expires: 1-18-93

EXHIBIT D
Page 1 of 1

Lane County

EXHIBIT H
PARTITION
94-P0510

May 31, 1994

FILE COPY

APPLICANT:

Donn Stemm
388 High Street
Eugene, OR. 97401

OWNER:

Bailey Hill South & Bailey Hill Land Company
366 E. 40th Avenue
Eugene, OR. 97405

RE: Final Approval - PA 3826-92 - (Partition)

This letter is to inform you that final approval is granted to the above referenced partition, since all requirements and conditions of the tentative approval for the partition have been completed.

Attached is your copy of the partition plat recorded on May 23, 1994 for your records.

Very truly yours,

John S. Petsch

John S. Petsch
Senior Engineering Associate
Land Management Division

Enclosures: Copy of recorded plat

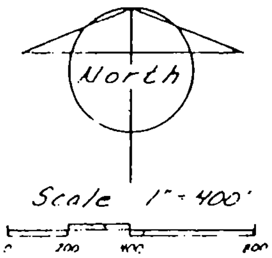
CC: Subdivision Engineering File

EXHIBIT E
Page 1 **of** 5

Land Partition Plat for 'ailey Hill South & Bailey Hill Land Company

NE & SE 1/4 Section 10, NW & SW 1/4 Section 11, T18S, R4W, W.M.

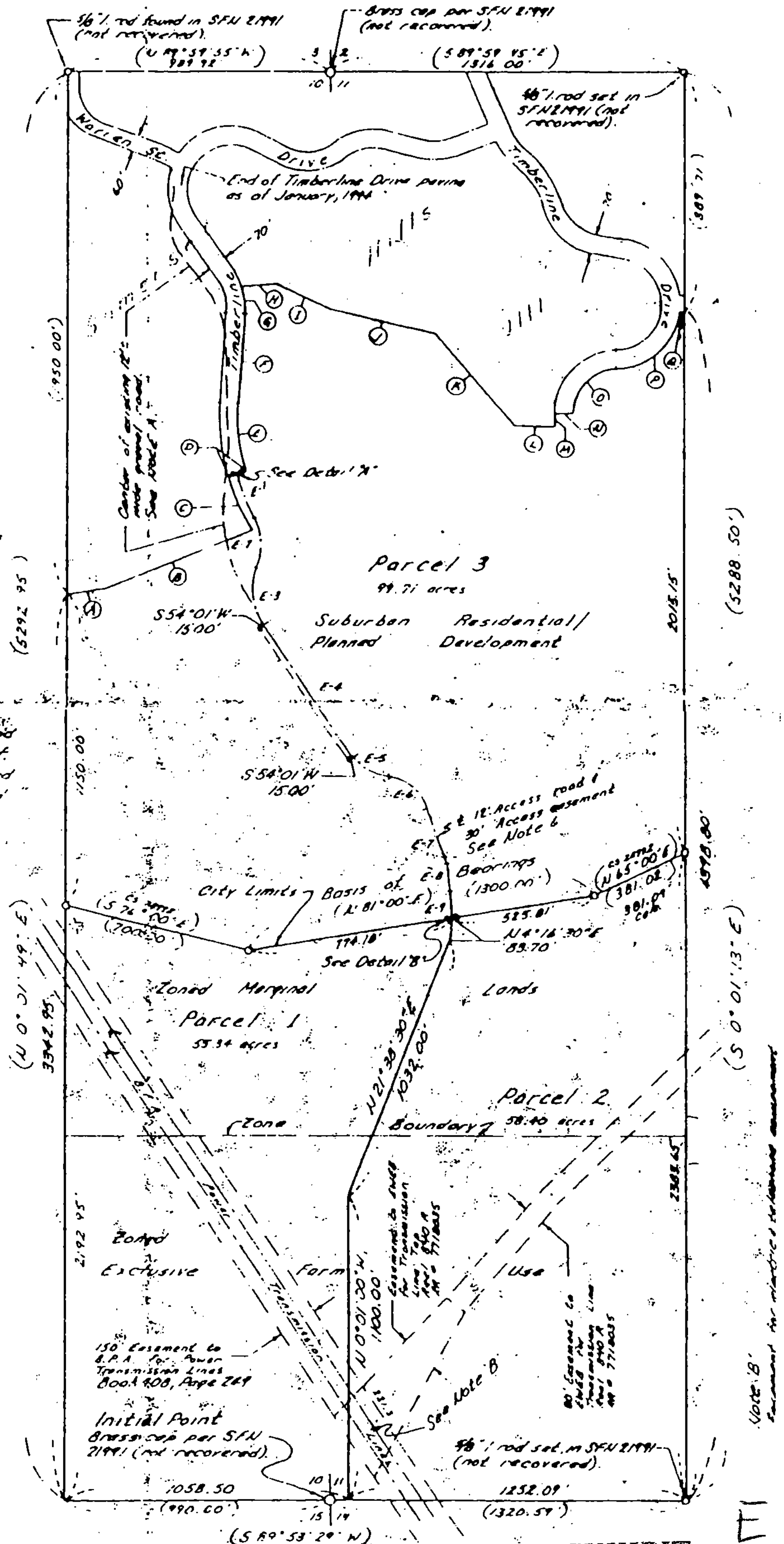
Eugene (a portion), Lane County, Oregon



Legend

○	Found 5/8" Rod unless noted otherwise
●	Set 5/8" × 30" Iron Rod with plastic I.D. Cap stamped "STEPH... LS 715"
SFN	Denotes Survey File Number
( )	Denotes record data per SFN 21991 & 28992.

Note A.
That portion of the existing gravel road lying within the platted boundary of Somerset Hills VIII shall be abandoned and relocated outside of the platted area at the time street improvements for Timberline Drive are extended.



Record Data per Somerset Hills VIII, File 73, Slides 78, 79 & 80, LCOPR, also the North Boundary Parcel 3

(A)	N 81°28'56" E	150.00'
(B)	N 68°35'56" E	589.63'
(C)	N 23°57'32" W	LC = 225.06' R = 834.48, Δ = 15°30', L = 225.75
(D)	N 73°47'28" E	70.00
(E)	N 6°12'32" W	LC = 265.50' R = 764.48, Δ = 20°00', L = 266.85'
(F)	N 3°47'28" E	335.00
(G)	N 7°11'58" W	LC = 90.00 R = 236.04, Δ = 21°58'51", L = 90.55
(H)	N 85°09'43" E	130.08'
(I)	S 65°57'46" E	225.00'
(J)	S 77°00'00" E	400.00
(K)	S 40°00'00" E	450.00
(L)	S 88°03'34" E	151.33
(M)	N 0°42'32" W	50.00'
(N)	N 89°17'28" E	70.00
(O)	N 44°[illegible]7'28" E	LC = 234.82 R = 166.04, Δ = 90°00', L = 260.81
(P)	N 47°54'12" E	LC = 3[illegible]5.44 R = 238.55, Δ = 82°46'11", L = 344.63
(Q)	N 89°[illegible]28" E	19.20

EXHIBIT E

Page 2 of 5

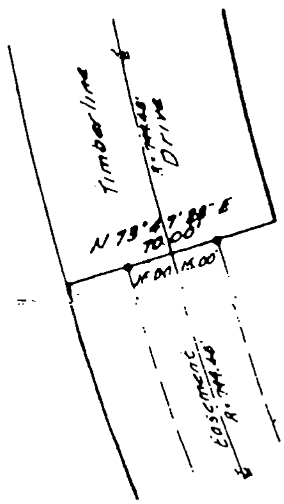
Land Partition Plat. **94-P0510**

LANE COUNTY SURVEYORS OFFICE
S. FILE NO. 31989
FILING DATE 5-23-94 | C

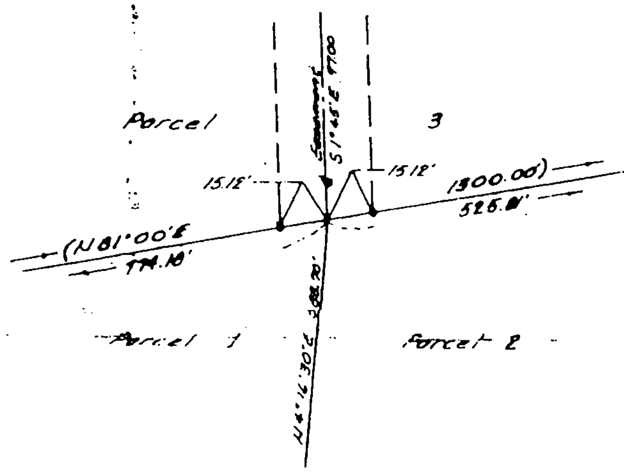
18-04-11 TL 900 & 901

NOTES:

1. Future home sites for Parcels 1 and 2 shall be located in the Marginal Land zone.
2. There are no water rights appurtenant to the property shown hereon. Water rights statement recorded reel 1959, Reception No. 9425684 LCODR.
3. Significant levels of arsenic have been detected in local groundwater.
4. Provisions of Section 16.214, Lane Code, in effect at the time this plat was approved prohibit the re-division of Parcel 1 or Parcel 2.
5. The National Wetlands Inventory indicates that wetlands are present on Parcel 3. Site alterations and/or new construction may require permits from the U.S. Army Corps of Engineers or the Oregon Division of State Lands.
6. 30' Access Easement recorded in Reel 1954R, Reception No. 9438777, LCODR
7. A boundary survey was not required, therefore no geodetic control tie was performed



Detail "A" Scale 1"=40'



Detail "B" Scale 1"=40'

℄ Access Road Easement

E-1	Δ=12°24'15", R=799.48', L=173.06' ch=S22°26'40"E 172.74'
E-2	Δ=52°42'17", R=220.00', L=202.37' ch=S2°15'38"E 195.31'
E-3	Δ=60°04'30", R=220.00', L=230.67' ch=S5°56'45"E 220.25'
E-4	S35°59'00"E 580.00'
E-5	Δ=50°01'00", R=180.00', L=157.15' ch=S60°59'30"E 152.19'
E-6	Δ=68°14'00", R=160.00', L=190.54' ch=S50°53'00"E 179.48'
E-7	S17°46'00"E 259.50'
E-8	S9°20'00"E 99.50'
E-9	S1°45'00"E 97.00'

Courses E-1, E-2 & E-3 denotes the easement ℄ for the future location of the access road. Course E-4 through E-9 follows more or less along the center of an existing 18' wide gravel road.
A 5/8" iron rod was set S54°01'00"W 15.00' from north end of course E-4

I, Donn E. Stemm, do hereby certify that this is a true and exact copy of the final partition plat for Bailey Hill South and Bailey Hill Land Co.

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 17, 1985
DONN E. STEMM
715
Exp 12/31/94

SCHAUDT, STEMM & WILD, INC.
Consulting Engineers, Surveyors & Planners
308 High Street - 485-8383
Eugene, Oregon 97401

Job No. 92-4047 April , 1994 Sheet 1 of 2

EXHIBIT E
Page 3 of 5

DECLARATION:

BE IT KNOWN that Bailey Hill South, an Oregon partnership, and Bailey Hill Land Company, an Oreg partnership, are the owners of the real property described hereon and that they do hereby join causing the same to be partitioned as shown hereon.

Partner
Bailey Hill South

Partner
Bailey Hill Land Company

ACKNOWLEDGEMENT:

STATE OF OREGON, County of Lane, ss.

On this 4th day of APRIL, 1994, there personally appeared before me, a Nota Public, the above named John F. Breeden, partner of Bailey Hill South and of Bail Hill Land Company, and acknowledged that the foregoing instrument was signed in behalf of as partnerships by authority of the partners thereof, and he further acknowledged said instrument to h voluntary act and deed.

OFFICIAL SEAL
TROY A MUELLER
NOTARY PUBLIC - OREGON
COMMISSION NO. 020068
MY COMMISSION EXPIRES JAN 18, 1997

Troy A. Mueller
Notary Public for Oregon

My Commission Expires: 1-18-97

Land Partition Plat for
Bailey Hill South & Bailey Hill Land Company
NE & SE ¼ Section 10, NW & SW ¼ Section 11, T18S, R4W, W.M.
Eugene (a portion), Lane County, Oregon

SURVEYOR'S CERTIFICATE:

I, Donn E. Stemm, registered professional land surveyor, do hereby certify that I prepared th partition plat without the benefit of monumenting the boundaries of the parcels, and that this plat i a partition of the land described as follows:

Beginning at the Initial Point, said point being the corner common to Sections 10, 11, 14 and 1 Township 18 South, Range 4 West of the Willamette Meridian, and run thence along the south line of sai Section 10, South 89°53'29" West, 990.00 feet; thence North 0°01'49" East, 3342.95 feet to the mos westerly Southwest corner of Somerset Hills VIII, as platted and recorded in File 73, Slides 78, 7 and 80, Lane County Oregon Plat Records; thence following the southerly boundary of said plat th following courses and distances: North 81°28'56" East, 150.00 feet; North 68°35'56" East, 589.63 feet along the arc of a 834.48 foot radius curve right, the long chord bears North 23°57'32" West, 225.9 feet, a distance of 225.75 feet; North 73°47'28" East, 70.00 feet; along the arc of a 764.48 foo radius curve right, the long chord bears North 6°12'32" West, 265.50 feet, a distance of 266.85 feet North 3°47'28" East, 335.00 feet; along the arc of a 236.04 foot radius curve left, the long chord bear North 7°11'58" West, 90.00 feet, a distance of 90.55 feet; North 85°09'43" East, 130.08 feet; Sou 65°57'46" East, 225.00 feet; South 77°00'00" East, 400.00 feet;. South 40°00'00" East, 450.00 fee South 88°03'34" East, 151.33 feet; North 0°42'32" West, 50.00 feet; North 89°17'28" East, 70.00 feet along the arc of a 166.04 foot radius curve right, the long chord bears North 44°17'28" East, 234.8 feet, a distance of 260.81 feet; along the arc of a 238.55 foot radius curve left, the long chord bear North 47°54'12" East, 315.44 feet,. a distance of 344.63 feet; North 89°17'28" East, 19.20 feet to th most easterly Southwest corner of said Somerset Hills VIII; thence leaving said plat boundary run Sou 0°01'13" East, 4348.80 feet to the Southeast corner of the Southwest quarter of the Southwest quart of said Section 11; thence South 89°53'29" West along the south line of said Section 11, 1320.59 fe to the Point of Beginning, in Lane County, Oregon.

Donn E. Stemm

EXHIBIT E
Page 4 of 5

Land Partition Plat No. **94-P0510**

LANE COUNTY SURVEYORS OFFICE
C.S. FILE NO. 31990
FILING DATE 5-23-94 C

18-04-11 TL 300 & 301

NARRATIVE:

This plat was prepared at the request of John Breeden, the President of Breeden Bros., Inc., on behalf of the owners named in the Declaration, to create three large parcels of land by land partition procedures. The exterior boundaries of the partition have been previously surveyed by Survey No. 21991 and the plat of Somerset Hills VIII. The corporate boundary of the City of Eugene was previously surveyed by Survey No. 28992. The monuments set in the latter survey to delineate the city's boundary were recovered for this survey. Monuments set in this survey to delineate the access easement were set as shown.

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 1, 1985
DONN E. STEMM
715
Exp. 12/31/94

Partition File No. PA 3826-92

Applicant: Breeden Bros., Inc.
366 E. 40th Avenue

Owners: Bailey Hill South & Bailey Hill Land Company
366 E. 40th Avenue
Eugene, OR. 97405

Date Submitted: April 13, 1994

5-23-94
By Gina DeBoos

APPROVALS:

John S. Pelosh 5/20/94
Lane County Director of Planning Date
For Roy Burns

K. Robert Eyll 5-19-94
Lane County Surveyor Date

5/19/94
Lane County Assessor Date

I, Donn E. Stemm, do hereby certify that this is a true and exact copy of the final partition plat for Bailey Hill South and Bailey Hill Land Co.

SCHAUDT, STEMM & WILD, INC.
Consulting Engineers, Surveyors & Planners
360 High Street - 485-8383
Eugene, Oregon 97401

Job No. 92-4047 April 11, 1994

EXHIBIT E
Page 5 of 5

Sheet 2 of 2

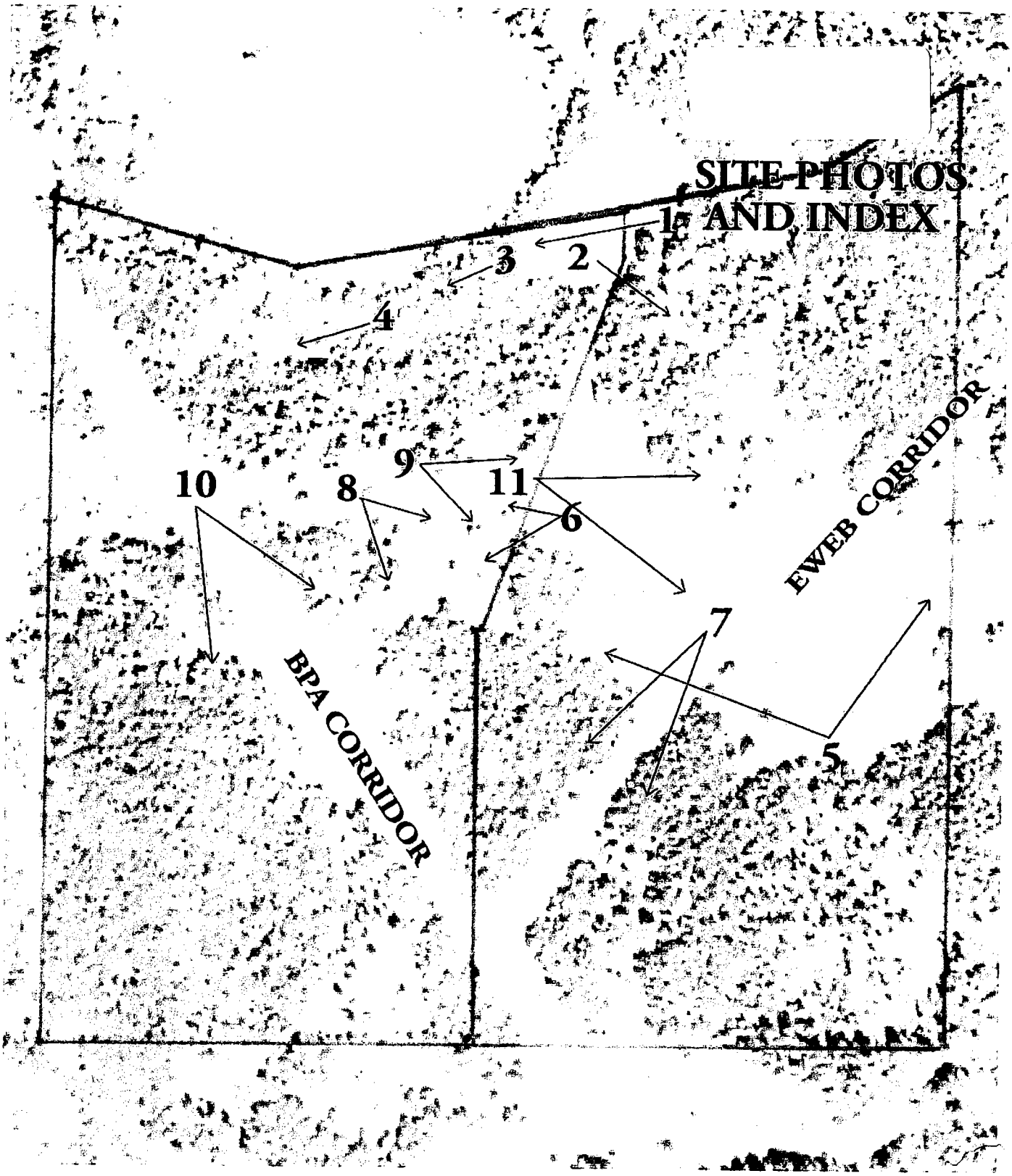


EXHIBIT F
Page 1 of 4

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EXHIBIT E
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EXHIBIT F
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EXHIBIT
Page 4 of 4

BPA-491
(Rev. 8-18-48)

BOOK 408 PAGE 249

Tract No. EG-28

BPA/EWEB EASEMENT

TRANSMISSION LINE EASEMENT

The GRANTOR, herein so styled whether one or more, JOE MAUGHAN and LILLIAN W. MAUGHAN, husband and wife

for and in consideration of the sum of THREE HUNDRED SEVENTY-FIVE -Dollars ($ 375.00)

in hand paid by the UNITED STATES OF AMERICA, receipt of which is hereby acknowledged, hereby grants, bargains, sells, and conveys to the UNITED STATES OF AMERICA and its assigns, a perpetual easement and right to enter and erect, operate, maintain, repair rebuild, and patrol one or more electric power transmission lines and appurtenant signal lines, poles, towers, wires, cables, and appliances necessary in connection therewith, in, upon, over, under, and across the following-described parcel of land in the County of Lane , in the State of Oregon , to wit:

That portion of that part of the $E\frac{1}{2}SE\frac{1}{4}$ of Section 10 and $SW\frac{1}{4}SW\frac{1}{4}$ of Section 11, all being in Township 18 South, Range 4 West of the Willamette Meridian, Lane County, Oregon, lying within a tract of land described as: Beginning at the southeast corner of the $SW\frac{1}{4}SW\frac{1}{4}$ of Section 11, Township 18 South, Range 4 West, Willamette Meridian; thence North a distance of 34.38 chains; thence West a distance of 35.00 chains; thence South a distance of 34.28 chains; thence East a distance of 35.00 chains to the point of beginning, which lies within a strip of land 150 feet in width, the boundaries of said strip lying 50 feet distant westerly from, and 100 feet distant easterly from, and parallel to the survey line of the Eugene-Goshen No. 2 transmission line, as now located and staked on the ground over, across, upon, and/or adjacent to the above described property, said survey line being particularly described as follows:

Beginning at survey station 249 + 15.0 a point on the north line of Section 10, Township 18 South, Range 4 West, Willamette Meridian, said point being N. 88° 36' W. a distance of 530.7 feet from the quarter section corner on the north line of said Section 10; thence S. 31° 31' E. a distance of 6351.7 feet to survey station 312 + 66.7 a point on the south line of Section 11, Township 18 South, Range 4 West, Willamette Meridian, said point being S. 88° 16' E. a distance of 271.3 feet from the southwest corner of said Section 11.

BPA EASEMENT

EXHIBIT G

together with the right to clear said parcel of land and keep the same clear of all brush, timber, structures, and fire hazards, provided however, the words "fire hazards" shall not be interpreted to include growing crops; and also the present and future right to top, limb, fell, and remove all growing trees, dead trees or snags (collectively called "danger trees") located on Grantor's land adjacent to said parcel of land, which could fall upon or against said transmission and signal line facilities.

TO HAVE AND TO HOLD said easement and rights unto the UNITED STATES OF AMERICA and its assigns, forever.

The Grantor covenants to and with the UNITED STATES OF AMERICA and its assigns that the title to all brush and timber cut and removed from said parcel of land and also all growing trees, dead trees or snags (collectively called "danger trees") cut and removed from Grantor's land adjacent to said parcel of land, is and shall be vested in the UNITED STATES OF AMERICA and its assigns and that the consideration paid for conveying said easement and rights herein described is accepted as full compensation for all damages incidental to the exercise of any of said rights.

The Grantor also covenants to and with the UNITED STATES OF AMERICA that Grantor is lawfully seized and possessed of the lands aforesaid; has a good and lawful right and power to sell and convey same; that same are free and clear of encumbrances, except as above indicated; and that Grantor will forever warrant and defend the title to said easement and the quiet possession thereof against the lawful claims and demands of all persons whomsoever.

Dated this 3rd day of January, 1950.

Joe Maughan
Joe Maughan

Lillian W. Maughan
Lillian W. Maughan

EXHIBIT G
Page 2 of 3

BOOK 408 PAGE 251

STATE OF Oregon)
) ss:
COUNTY OF Lane)

On the 3rd day of January, 1950, personally came before me, a notary public in and for said County and State, the within-named JOE MAUGHAN and LILLIAN W. MAUGHAN

to me personally known to be the identical persons described in and who executed the within and foregoing instrument and acknowledged to me that they executed the same as their own free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal the day and year last above written.

Harry L. McKee
Notary Public in and for the
State of Oregon
Residing at Eugene Oregon
My commission expires: Aug 20, 1950

HARRY L. MCKEE (SEAL)
NOTARY PUBLIC
STATE OF OREGON

Joe Maughan et ux
United States of Amer.

State of Oregon,
County of Lane—ss.
I, Harry L. Chase, County Clerk and ex-officio Recorder of Conveyance, in and for said County, do hereby certify that the within instrument was received for record at

and
Recorded
In Book 408 on Page 249-51
Lane County D E E D Records.
HARRY L. CHASE, County Clerk.
By [illegible] Deputy.

EXHIBIT G
Page 3 of 3

1050

7718035

POWER LINE EASEMENT

The undersigned, J. T. Breeden, Trustee

for and in consideration of the payment of the sum of Nineteen Thousand Three Hundred Fifty and no/100--- Dollars ($19,350.00), the receipt whereof is hereby acknowledg grants to the City of Eugene, a municipal corporation, for the use and benefit of the Eugene Water & Electric Board, hereinafter called the City, a perpetual easement and right-of-way over a strip of land 80 feet in width, in, under, over, upon and across that certain tract of land located in 18-04-11 ________, County of Lane, State of Oregon, described in the instrument signed ________, 19__, and recorded on ________ 19__, as No. ________, in Book ________, on Page ________, on Reel ________, Lane County Oregon Deed Records.

The route to be taken by said line or lines across said lands is to be continuous with and a part of the general route across other adjacent lands and is more particularly described as follows:

That part of that tract of land described by that deed recorded as Instrument 72521, Reel 250 of Lane County Oregon Deed Records included in a strip of land 80 feet in width for transmission line purposes and a parcel of land for transmission line tap structures more particularly described as follows:

Transmission Line Strip

A strip of land 80 feet in width lying 40 feet on each side of an electric transmission line centerline described as follows:

Commencing at the north quarter corner of said Section 11, Township 18 South, Range 4 West, Willamette Meridian, and being marked by a 1 inch diameter pin driven in the ground and running thence South 0°11'45" West 2603.4 feet to a point marked by a 5/8" diameter pin driven in the ground to mark the center of said Section 11 according to that survey filed as reception number 13782 of Lane County Oregon Surveyor's Records; thence South 81 feet and East 93 feet to the TRUE POINT OF BEGINNING; thence South 61°16' West 303.2 feet; thence South 57°13' West 633.0 feet; thence South 51°54' West 391.2 feet; thence South 49°53' West 621.5 feet; thence South 42°17' West 479.6 feet; thence South 40°50' West 541.2 feet to Engineer's centerline Station 31+56.5 and there terminating.

Parcel for Transmission Line Tap

Beginning at above described Engineer's Station 31+56.5 running thence south 61°31' east 40 feet; thence south 28°29' west 522.0 feet to the east line of the BPA Transmission line right-of-way; thence north 33°14' west 221.3 feet along said BPA right-of-way; thence north 43°41' east 443.1 feet; thence south 46°19' east 40 feet to the TRUE POINT OF BEGINNING.

together with the right at all times of ingress to and egress from the right of way by the most convenient and practical roads and routes over the said property, and together with the present and future right to top, limb, or fell all dangerous growing and dead trees, located on land owned by the undersigned, and adjacent to

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EWEB EASEMENTS

EXHIBIT H

1 of 5

the right of way, which, if they should fall, could fall upon or against the transmission line facilities as hereinafter described, the City to be the sole judge as to what trees are dangerous trees.

Said easement and right of way shall be for the following purposes: Namely, the perpetual right to enter and to erect, maintain, repair, rebuild, operate and patrol one or more electric power transmission lines and appurtenant signal lines, including the right to erect such poles and other transmission line structures, wires, cables and appurtenances as are necessary thereto, together with the present and future right to clear said right of way and keep the same clear of brush, timber, inflammable structures and fire hazards, provided that fire hazards shall not be interpreted to including growing crops, other than trees.

It is further understood and agreed that, if lawns, shrubs or other property be damaged by the City or its agents after construction work has been completed, as in the maintenance, repair or replacement of said transmission line or lines, then the undersigned shall be paid the amount of such damages as and when they occur.

It is further understood and agreed that the City may construct and maintain gates with locks at any or all fences crossed by said power lines.

It is further understood and agreed that no buildings or structures are to be erected within the above described 80 foot easement and right of way.

TO HAVE AND TO HOLD the same unto the Grantee, its successors and assigns forever; and the rights, conditions and provisions of this easement shall inure to the benefit of and be binding upon the heirs, executors, administrators, successors and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the undersigned have executed this instrument this 30 day of May, 1977.

Witnesses:

James F. Breeden trustee

EXHIBIT H
Page 2 of 5

STATE OF OREGON)
(ss.
COUNTY OF LANE)

On this day personally appeared before me J. T. Breeden, Trustee

to me known to be the individual___ described in and who executed the within and foregoing instrument, and acknowledged that _____ signed the same as _____ free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 30 day of March, 19 77.

JURGEN S. SORENSEN
NOTARY PUBLIC

Notary Public in and for the State of Oregon

Residing at Eugene

My Commission Expires: 2-4-77

7718035

State of Oregon,
County of Lane—ss
I, D.M. Penfold, Director of the Department of General Services, in and for the said County, do hereby certify that the within instrument was received for record at

1977 MAR 30 AM 10 54

Reel 840 R

Lane County OFFICIAL Records.

D.M. Penfold, Director of the Department of General Services.

By _____ Deputy

Fees

EXHIBIT H
Page 3 of 5

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7723708

KNOW ALL MEN BY THESE PRESENTS:

For true and actual consideration of No Dollars, the undersigned hereby grants a perpetual easement to the City of Eugene, Oregon, a municipal corporation, of Lane County, Oregon, by and through the Eugene Water & Electric Board, together with any joint user with whom it may contract, with the right to place, construct, operate, maintain, inspect, reconstruct, repair, keep clear and remove, electric light, electric power, telephone and telegraph equipment, lines, poles, guys and appliances necessary or convenient in connection therewith, upon, across, over and/or under the following described property situated in Lane County, Oregon:
A parcel of land being that part of that tract of land described by that deed recorded as Instrument No. 72521, Reel 250 of Lane County Oregon Deed Records, said parcel being more particularly described as follows:

Commencing at the North quarter corner of Section 11, Township 18 South, Range 4 West, Willamette Meridian, and being marked by a one (1) inch diameter pipe driven in the ground and running thence South 0°11'45" west 2603.4 feet to a point marked by a 5/8" diameter pin driven in the ground to mark that center of said Section 11 according to that survey filed as Reception Number 13702 of Lane County Oregon Surveyors' Records; thence South 1985.5 feet and west 2179.78 feet to EWEB Hawkins-BPA transmission line centerline station 31+56.5; thence South 61°31' east 40 feet; thence South 28°29' West 522.0 feet to the east line of BPA transmission line right of way being the TRUE POINT OF BEGINNING; thence continuing South 28°29' West 170.3 feet to the West line of BPA transmission line right of way; thence North 33°14' West 267.1 feet along the Westerly right of way line of BPA transmission line; thence North 43°41' East 154.0 feet to the east line of BPA transmission line right of way; thence along the east right of way of BPA transmission line South 33°14' East 221.3 feet to the TRUE POINT OF BEGINNING.

Said easement is non-exclusive.

The grantee and its joint users shall at all times have the rights and privileges therein necessary or convenient for the full enjoyment and use thereof for the purposes above described, including the right of ingress and egress to and from the real property of the grantors for the purposes herein mentioned; and also the right to remove trees, limbs of trees, undergrowth or other obstructions on said property of the grantors, that overhang or otherwise endanger the property of the grantee. TO HAVE AND TO HOLD the same unto the Grantee, its successors and assigns forever; and the rights, conditions and provisions of this easement shall inure to the benefit of and be binding upon the heirs, executors, administrators, successors and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the undersigned has executed this instrument this 20 day of April, 1977.

Witness:

J. T. Breeden

L 5 - 2 7 0 0 3 0 0 0 3 5 0

STATE OF OREGON)
COUNTY OF LANE) ss.

On this day personally appeared before me J. T. Breeden, Trustee

to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 22 day of April, 1977.

NOTARY PUBLIC

Notary Public in and for the state of Oregon
residing at Eugene

My commission expires:

EXHIBIT H
Page 4 of 5

77233708

State of Oregon,
County of Lane—ss.

I, D.M. Penfold, Director of the Department of General Services, in and for the said County, do hereby certify that the within instrument was received for record at

1977 APR 22 PM 1 56

843 R

Reel

Lane County OFFICIAL Records.

D.M. Penfold, Director of the Department of General Services.

By [signature] Deputy

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EXHIBIT H
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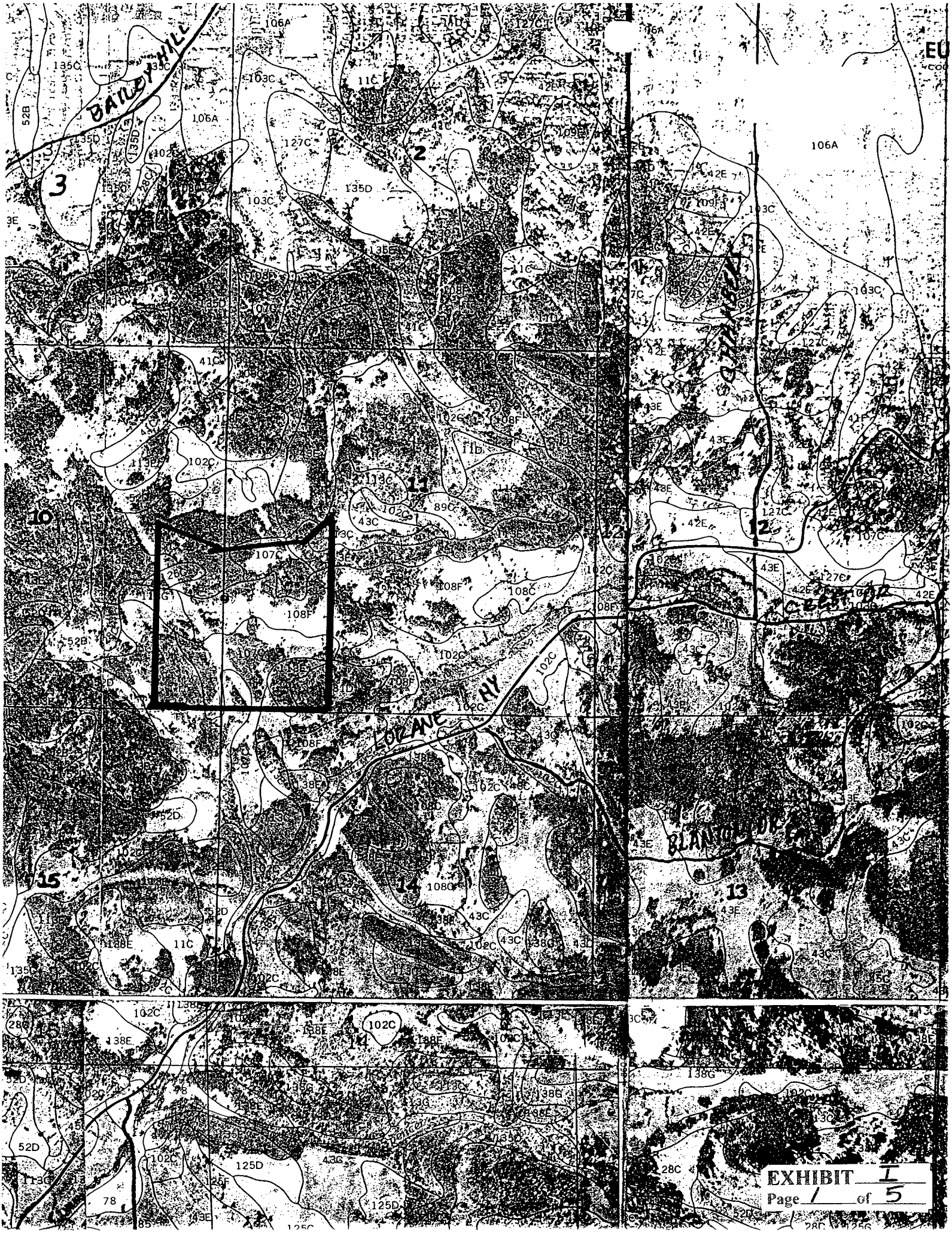

EXHIBIT I
Page 1 of 5

SOIL MAP UNITS IN ACRES
FOR MAP 18041100 LOT 304

MAP UNIT SYMBOL	AREA IN ACRES	PERCENT	SOIL NAME	COMPONENT NAME	AGRICULTURAL CAPABILITY CLASS
43E	0.445	0.803	DIXONVILLE-PHILOMATH-HAZELAIR COMPLEX, 12 TO 35 PERCENT SLOPES		
				DIXONVILLE	4
				PHILOMATH	6
				HAZELAIR	4
43C	6.643	12.003	DIXONVILLE-PHILOMATH-HAZELAIR COMPLEX, 3 TO 12 PERCENT SLOPES		
				DIXONVILLE	3
				PHILOMATH	6
				HAZELAIR	4
125C	3.194	5.771	STEIWER LOAM, 3 TO 12 PERCENT SLOPES		
				STEIWER	3
107C	14.536	26.264	PHILOMATH SILTY CLAY, 3 TO 12 PERCENT SLOPES		
				PHILOMATH	6
108F	13.146	23.752	PHILOMATH COBBLY SILTY CLAY, 12 TO 45 PERCENT SLOPES		
				PHILOMATH	6
113G	4.446	8.034	RITNER COBBLY SILTY CLAY LOAM, 30 TO 60 PERCENT SLOPES		
				RITNER	7
102C	12.936	23.373	PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES		
				PANTHER	6

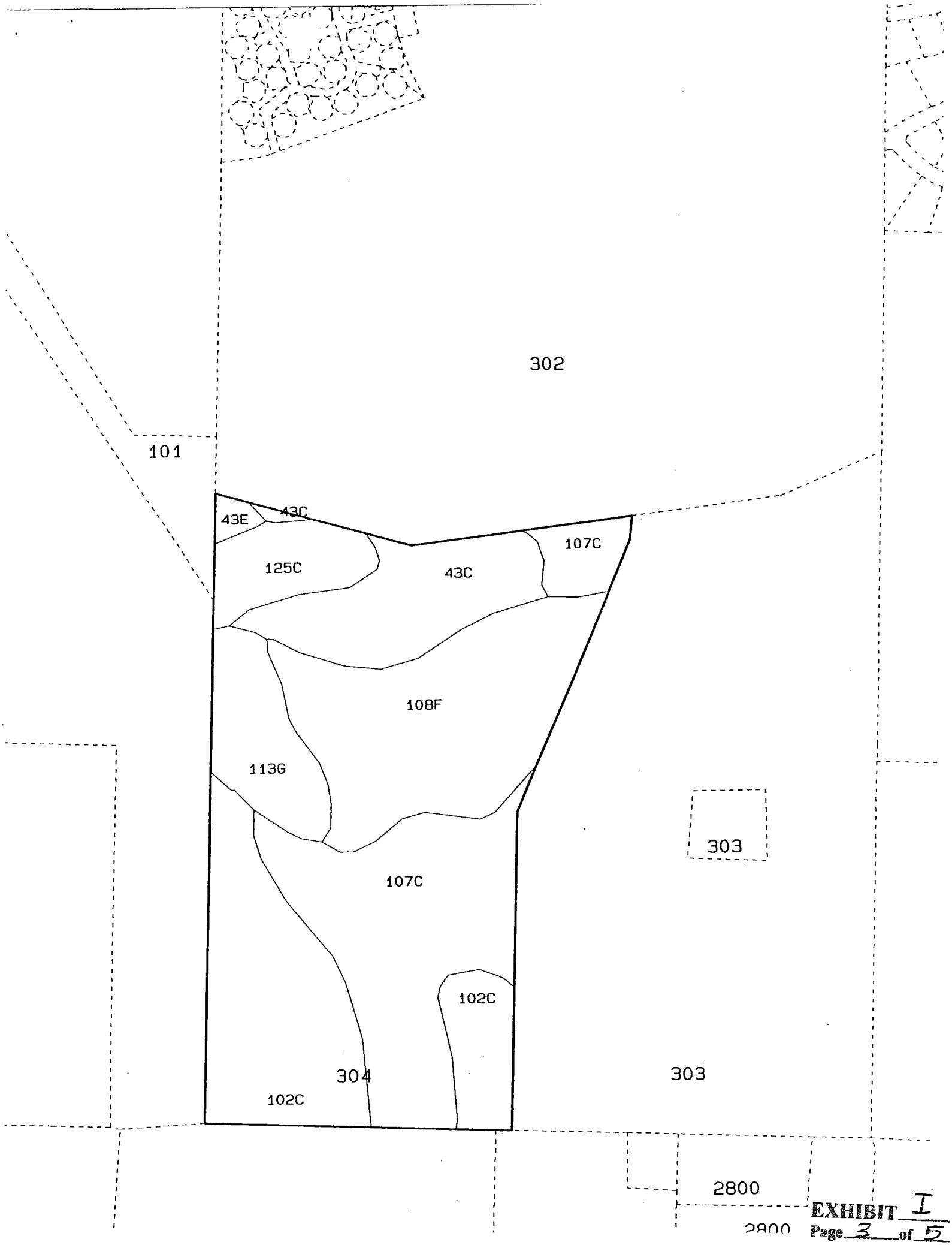

EXHIBIT I
Page 3 of 5

SOIL MAP UNITS IN ACRES
FOR MAP 18041100 LOT 303

EXHIBIT E
L-COG SOILS MAPS

MAP UNIT SYMBOL	AREA IN ACRES	PERCENT	SOIL NAME	COMPONENT NAME	AGRICULTURAL CAPABILITY CLASS
13C	0.206	0.352	RITNER COBBLY SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES		
				RITNER	4
13E	8.717	14.926	RITNER COBBLY SILTY CLAY LOAM, 12 TO 30 PERCENT SLOPES		
				RITNER	6
07C	25.071	42.926	PHILOMATH SILTY CLAY, 3 TO 12 PERCENT SLOPES		
				PHILOMATH	6
08F	17.063	29.216	PHILOMATH COBBLY SILTY CLAY, 12 TO 45 PERCENT SLOPES		
				PHILOMATH	6
1D	5.600	9.589	MCDUFF CLAY LOAM, 3 TO 25 PERCENT SLOPES		
				MCDUFF	6
02C	1.747	2.992	PANTHER SILTY CLAY LOAM, 2 TO 12 PERCENT SLOPES		
				PANTHER	6

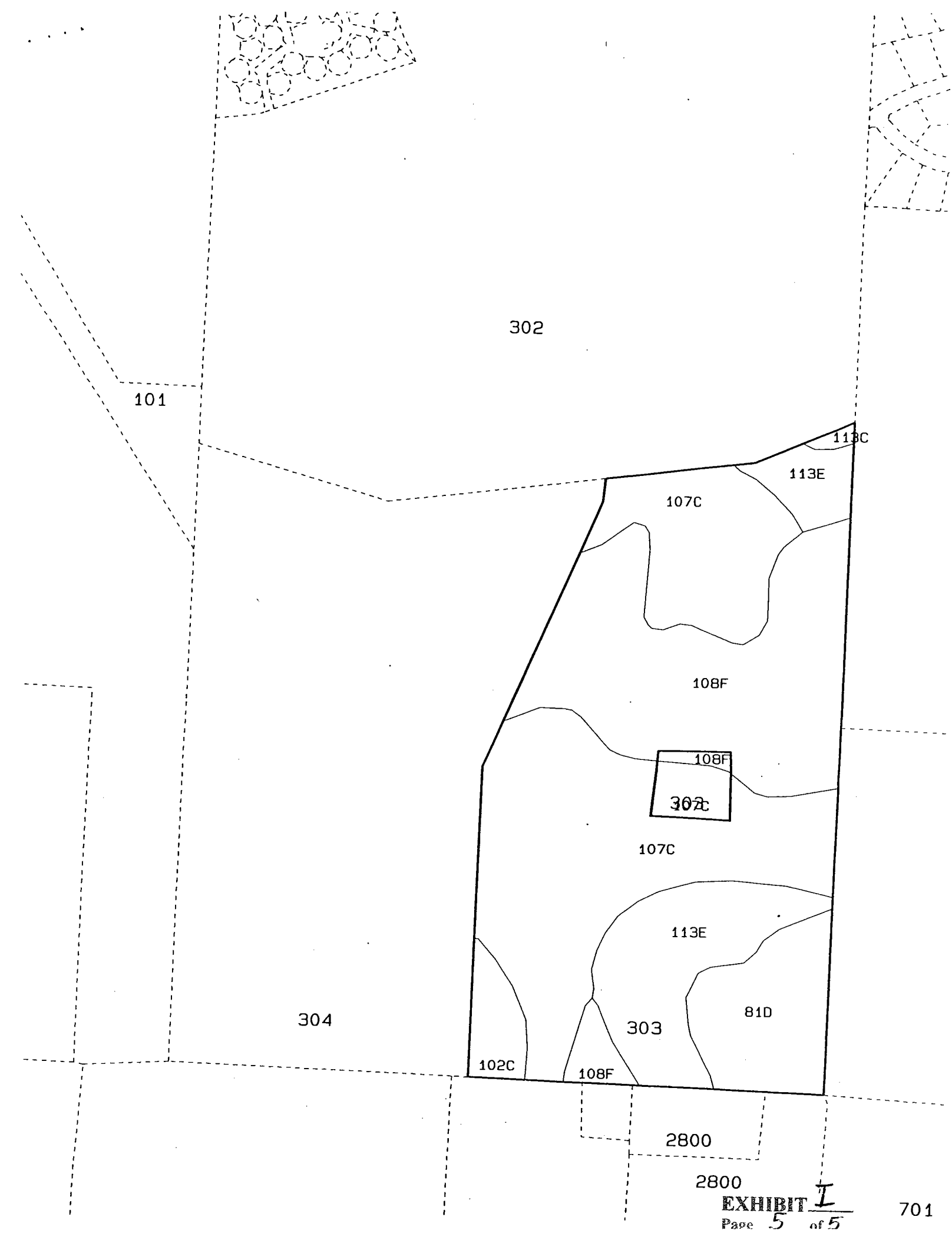

EXHIBIT I
Page 5 of 5

Marc E. Setchko
CONSULTING FORESTER

870 Fox Glenn Avenue
Eugene, Oregon 97405
Phone: (541) 344-0473
FAX: (541) 344-7791

JULY 7, 2005

FOREST PRODUCTIVITY AND INCOME ANALYSIS
for
Brad Ogle and Mark Childs

SUBJECT PARCEL: ASSESSORS MAP NO. 18-04-11
Tax Lots 303 & 304, totaling 113.74 acres.

QUALIFICATIONS: Society of American Foresters Certified Professional Forester (#2953), with 27 years of experience including 17 years as a consultant, with Bachelor of Science (Cal Poly, SLO) and Master of Forestry (Oregon State) Degrees. As a consultant I have extensive experience in all phases of forestry, including drawing up forest management plans, handling the administration of these plans and maximizing the return to my clients. My productivity analyses are based on sound and "reasonable" forest management practices. This includes carrying out activities in a manner which generates a long term profit, rather than a loss. There are management activities which could be carried out which could benefit a forest operation but result in a loss to the owner. For these reasons all productivity analyses must be conducted from the standpoint of "reasonable forest management" practices.

I. SUMMARY

An evaluation of the site, from a timber productivity and income producing standpoint is reviewed in this analysis, in order to determine if the parcel meets the criteria for marginal lands designation. The analysis will show that the subject property qualifies for the following reasons:

1. The income generated from the subject property averages less than $10,000/year, based on 1978 through 1983 log prices. This level of income meets the following statutory test for Marginal Lands: ORS 197.247 (1)(a) "The proposed marginal land was not managed during three of the five calendar years preceding January 1, 1983, as part of a ... forest operation capable of producing an average, over the growth cycle, of $10,000 in annual gross income."

2. The subject property produces less than 85 cu.ft./ac./yr. of merchantable timber volume. This has been determined by Lane County, and the State of Oregon, to be the measuring parameter for marginal soils west of the Cascade Range; as defined in ORS 197.247 (1) (b) (C).

II. INTRODUCTION

Income Test

The income test must be calculated for the entire parcel (113.74 acres), which includes both tax lots, as it existed for the five calendar years preceding January 1, 1983.

Merchantable timber volume, in board feet per acre, for each soil type is needed for the income test. Income calculations are based on **dollars per thousand scaled board feet, not cubic feet,** because that is the manner in which the vast majority of timber (or logs) is purchased. The only exception to this is the junk wood or tops which are purchased by the ton, which is a weight, not a scaled measurement. Currently, there is no mill in the northwest purchasing anything based on cubic foot measurements.

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Douglas-fir is the only species considered for the income test, because it is the most valuable **merchantable** tree species which will grow on this site. Alder, red cedar and incense cedar have values similar to, or higher than Douglas-fir. However, red cedar and alder will not grow on this site and **none** of these three species will produce the **volume per acre** that Douglas-fir will. Cedar has such a high taper (the trees grow like upside carrots, rather than poles), that each individual tree will not produce the measured board foot volume that a Douglas-fir tree will. Measured, **or scaled**, board foot volume is the number a mill uses for payment when purchasing logs. Therefore, even if these species were used to calculate income for the parcel, the considerably lower volumes per acre would result in a lower total dollar figure. Large alder logs (≥12" in diameter) will pay equal to or more than Douglas-fir. Smaller alder (<12") is worth less than Douglas-fir. But the biggest drawback to planting and establishing alder stands is the volume per acre produced. The **best** stands of alder in the **coast range** will only produce ≈60 percent of the volume per acre that an **average** stand of Douglas-fir in the Willamette Valley will produce. For all of the above reasons Douglas-fir is used for income test.

Since no cutout (timber volume removed) numbers are available, these figures must be calculated based on the productivity of the soils on the parcel. For Douglas-fir these estimates were obtained from the CMAI (Culmination of Mean Annual Increment) FOR DOUGLAS-FIR Table and the Empirical Yield Tables for the Douglas-fir Zone, Washington Department of Natural Resources by Charles Chambers and Franklin Wilson. These tables were developed by collecting large amounts of data from existing stands of timber. The data is then defined in terms of cubic foot or board foot **volume per acre** for each site index number. A site index number is an assigned number, based on the amount of tree growth per year. The faster the trees grow on a particular site, the higher the site index number. The site index numbers have been further divided in five site classes (I-V), with I being the best site class.

The one caveat to using these tables are the assumptions one must make. The growth tables **assume** fully stocked stands of the **one** species in question. Fully stocked stands have the maximum number of trees alive and growing, at the **optimal** spacing, to allow for maximum growth. A fully stocked stand will have the highest volume per acre. However, if a stand has fewer trees, with wide spacing between trees, there will be less volume than a stand with more trees. The reverse is also true. An overstocked stand, with trees growing too close together, will produce less volume per acre, because the trees are competing for space, which slows diameter growth. Smaller diameter trees have less volume than large diameter trees. The reason one fully stocked stand, assuming a similar number of **optimally** spaced trees per acre, can have more volume per acre is due to growth rates in the height of the trees. A soil with a high Site Index number will produce faster growing trees, in terms of height. These trees are producing more volume in the same time period as slower growing trees, because they are taller (with more merchantable logs), than the slower growing trees. The **number**, or density, of trees per acre affect the **diameter** growth of the trees, the **site index and/or class** of the soil and/or site, affect the **height** growth of the trees. In summation; height growth produces more volume than diameter growth.

Once obtaining a **merchantable** board foot volume, using the above described methods, the income generated from the parcel can be calculated. Income is calculated using 1983 log prices from the Oregon State Department of Forestry data (published quarterly). These are the prices Lane County has determined should be used.

Productivity Test

The productivity test must be calculated on the parcel, or portion(s) of the parcel, which is being submitted for marginal land designation. On the Ogle/Childs parcel this includes portions of both tax lots (#303 & #304), totaling 73.74 acres of the original 113.74 acres.

The timber productivity (cu.ft./ac./yr.) figures for Douglas-fir were calculated using a combination of the 1) Lane County Soil Ratings for Forestry & Agriculture (August, 1997), 2) U.S. Dept. of Agriculture SCS Data, as presented in the Soil Survey of Lane County Area (Green Sheet), and 3) Lane County Soil Ratings taken from the Office of the State Forester Memorandum (Feb. 8, 1990 General File 7-1-1). The timber productivity figures for ponderosa pine were calculated using the table developed by Meyer for eastern Oregon ponderosa pine, as there are no growth and/or productivity tables for valley pine. These sources provide cu.ft./ac./yr. data for each soil type occurring on the above described parcel. By summing up each soil type, and dividing by the total acreage, an average per acre productivity figure for the entire parcel can be calculated.

III. MERCHANTABLE TREE SPECIES CAPABLE OF GROWING ON THIS SITE:

The income and productivity tests must consider all merchantable timber species capable of growing on the site. The timber species must also be capable of growing in fully stocked, pure stands, in order to be used for either of the above mentioned tests. A stand is considered pure if 90-95% of the trees in the stand are one species. There are a number of conifer species which **will not** grow in pure stands. These include grand fir, incense and red cedar.

Conifers

Only the species which could **potentially** grow on this site have been considered. There are many more conifer species than those discussed below, but I have not included high elevation species, species which grow in totally different geographical areas or species that are not considered merchantable.

Douglas-fir can and does grow on this site. It has been used in both the income and productivity tests, as presented elsewhere in this analysis. It has been used in the income test because it is the **most valuable merchantable species**. It is used in the productivity tests, for certain soil types, because it the predominant species growing in the area and, **in most cases,** will outproduce the growth of other species.

Other merchantable conifer species, which could **potentially** grow in this geographical range and elevation, include ponderosa pine, grand fir, western hemlock, incense and western red cedar. White fir is not considered because it the same tree as a grand fir, it simply grows at higher elevations.

Red cedar is slow growing and will not grow well (if at all) on this site, due to moisture constraints. At the present time it is not growing anywhere on the site. Red cedar does not grow in pure stands, it is found intermixed with other conifer species. Due to its slow growth, and inability to grow in pure stands, it will not be used for the productivity calculations. It is not used for the income calculations for two reasons. First, it will not grow in pure stands which could cover the parcel, even if it could grow on this site. Second, the volume per acre, as discussed previously, cannot approach that of Douglas-fir.

Incense cedar can and does grow on this site. However, it is extremely slow growing, does not grow in pure stands (other than pockets within a larger stand) and the volume per acre is low due to the extremely high taper of these trees. In other words, incense cedar does not produce much scaled volume per tree compared to other species, which results in a low volume per acre. Therefore, incense cedar is not used for the productivity test, due to its slow growth, and not used for the income test, due to its low volume per acre, even though it is close in value to Douglas-fir.

Hemlock will not grow on this site, due to moisture constraints, poor soils and other existing site conditions. It is also worth considerably less than Douglas-fir. Therefore, this species is not used for either the productivity or income test.

Grand fir prefers lowlands and stream valleys with high water tables and will not do well on this site due to moisture constraints, but it could conceivably grow here. However, it will not outcompete Douglas-fir in the open; it does much better growing up under shade cover from other species of trees, rarely grows in pure stands and has a growth rate similar to Douglas-fir, but on this site would not grow as well as Douglas-fir. There is no grand fir growing on the site at the present time. It is also worth considerably less than Douglas-fir. For all of the above reasons this species is not used in the productivity or income tests.

Ponderosa pine, which can and does grow on this site, will exceed Douglas-fir growth under certain conditions, in certain soil types. However, pine is worth considerably less than Douglas-fir. Therefore, while Douglas-fir and ponderosa pine are used for the growth productivity calculations, only Douglas-fir is used for the income calculations.

KMX has also been suggested as a species which could grow here, but it is **not** a merchantable species. KMX will grow almost anywhere. However, it grows like a bush with very poor form, is extremely limby and too resinous for any commercial use. Discussions with foresters from Roseburg Lumber, Seneca and Lone Rock Timber, three companies which have planted this tree, have confirmed this. This is also what I personally have observed with KMX trees. In addition, many of the trees growing are now dying from foliar diseases. In short, none of these companies will plant KMX again. Furthermore, the state foresters I have talked to, including those in Lane County, discourage planting KMX; as a professional consulting forester managing private owners small woodlands, I would **not** recommend planting KMX.

Limited testing by computer generated models, **of the characteristics of KMX (not actual KMX saw logs),** show that it produces high quality pulp and is suitable for studs and dimension lumber. Talking with mills and log buyers throughout the state of Oregon shows otherwise. The pulp is so high in resin content that it gums up the machinery in the mills; they will not use it for pulp. **No mill** will purchase **KMX sawlogs. No mills** will purchase KMX pulp logs.

The final argument for merchantibility of KMX concerns the use of KMX for firewood. To begin with it is hard to conceive of someone planting KMX to grow for firewood. The next point is whether or not it makes good firewood, not just will it burn. Anything will burn, given enough fuel. Ponderosa pine is horrible as firewood. It is extremely pitchy and resinous; both of these substances create creosote in chimneys, whether burned in an open fireplace or a wood stove. Creosote creates an extreme fire hazard. Furthermore, unless ponderosa pine is extremely dry, it is hard to light and burns poorly, which creates huge amounts of smoke. KMX has even more resin than ponderosa pine which would mean it produces even more smoke and creosote than ponderosa pine produces. I have never heard of anyone selling KMX as firewood, even from the back of their pickup.

For all of the reasons discussed above, KMX is not a merchantable species.

Hardwoods

The only **merchantable** hardwoods capable of growing on this site are maple and oak; red alder will not grow on this site due to moisture constraints.

Oak is very slow growing; far slower than Douglas-fir. It is also worth far less than Douglas-fir. For these reasons oak is not considered for the productivity or income tests.

Maple can and does grow on this site. However, individual maple trees have large canopies which cover tremendous amounts of space, which results in a low number of trees per acre, and maples do not usually grow in pure stands, except as pockets within larger stands of other species. They are usually scattered throughout conifer stands. Even if a pure maple stand could be found, the number of maples per acre is low, which results in a low cubic foot per acre growth figure. Maple is also worth far less than Douglas-fir. For these reasons maple is not considered for the productivity or income tests.

A hardwood species frequently mentioned is hybrid poplar. There are many reasons hybrid poplar will not grow on this site. This site has very shallow soils (or none at all in areas of exposed rock), a south to southwest aspect (hot and dry summers, harsh tree growing conditions) and does not have adequate water. Hybrid poplar stands grow best in deep alluvial soils for satisfactory yields and need tremendous amounts of water to grow successfully. Neither of these conditions are present on this site, and irrigation water in sufficient quantities is not available. Poplar does not grow well in nonalluvial (hill) soils.

Hybrid poplar plantations are established in the same manner as an agricultural crop. In fact, the state of Oregon considers it an agricultural crop through the age of 12 years, because it was originally intended that the trees would be harvested between 8 to 10 years old. To establish a poplar plantation, all old stumps must be removed, the soil tilled by plowing or ripping, competing vegetation must be controlled and drainage must be improved by using either surface ditches or subsurface tile. These are agricultural practices which are done using machinery; **plowing and improving drainage are not forestry practices**. For hybrid poplar stands to obtain full stocking, and meet their full growth potential, the landowner must carry out intensive weed control, fertilize, thin, prune and protect the stand from animals, insects and diseases. Especially important is weed control. If not controlled the hybrids will grow slowly and may not survive. The majority of these activities are done with machinery; the majority of the Ogle site is too steep for the necessary machinery to operate. All of the above mentioned activities most be completed in order to establish a fully stocked, fast growing poplar stand.

Plantations growing west of the Cascades in areas of "ample rainfall", on flat ground, with all of the above activities carried out will reach their full growth potential. The east slopes of the coast range and Cascades are in a rain shadow and are considerably drier. The Ogle parcel is close to the rain shadow of the coast range; it is definitely not in the foothills of the Cascades. Rainfall amounts incease as you go from the rain shadow of the coast range to the west slopes of the Cascades. If site conditions are conducive to the growth of hybrid poplar, the tree will grow. Economic success with these plantations depends on intensive cultural techniques and **good** quality land. Hybrid poplar plantations can supplement conventional forest production, but for several reasons, including their cultural and soil requirements, they cannot replace forests of Douglas-fir and other conifer species on most of the forest lands of the Pacific Northwest. On the Ogle parcel, the on site conditions, i.e. slope, aspect, actual soil conditions, etc., will not support the growth of hybrid poplar.

For all of the reasons discussed above, poplar is not considered for the productivity or income tests.

IV. SITE INFORMATION

Site information is presented in two parts. The first description covers the entire parcel, as all of the parcel is included in the income portion of the analysis. This description includes all of tax lots #303 and #304. The second description covers the portion of the parcel being considered for marginal lands designation, as this portion is consided is the area being looked at for the productivity calculations.

Description of Entire Parcel

The subject parcel consists of two tax lots totaling 113.74 acres in size, with 11.8 acres in B.P.A. easement corridors (see Exhibit 1). The site aspect is south to southwest with slopes of 10-45%. Grasses, blackberry, poison oak and scrub white oak cover most of the property, with exposed bedrock, broken rock and cobbly soils prevalent throughout the parcel. There are also scattered Douglas-fir, ponderosa pine and incense cedar, left from previous logging activities. An LCOG soil survey confirms SCS map data, which shows the parcel is composed of seven different soil types (see Exhibits 2-1 and 2-2). Over half of the property (≈69.8 acres) is underlaid with Philomath silty clay (Soil Type 107C) and Philomath cobbly silty clay (Soil Type 108F). These soil types are extremely poor for growing conifers. The remaining portions of the parcel are underlaid with Dixonville-Philomath-Hazelair complex (Soil Types 43C and E), McDuff clay loam (Soil Type 81D), Panther silty clay loam (Soil Type 102C), Ritner cobbly silty clay loam (Soil Types 113C, E and G) and Steiwer loam (Soil Type 125C). Of these soil types, only the McDuff clay loam and Ritner cobbly silty clay loam are good soils for growing conifer, and these particular soil types only cover approximately 19 acres of the entire parcel.

Description of Area Being Looked at for Marginal Lands Designation

The subject area consists of the southern portions of two tax lots (#303 & #304), totaling 73.74 acres in size, with 9.13 acres in B.P.A. and EWEB easement corridors (see Exhibit 1). The site aspect is south to southwest with slopes of 10-45%. Grasses, blackberry, poison oak and scrub white oak cover most of the property, with exposed bedrock, broken rock and cobbly soils prevalent throughout the parcel. There are also scattered Douglas-fir, ponderosa pine and incense cedar, left from previous logging activities. A large portion of both parcels have not grown trees as far back as there are records.

An LCOG soil survey confirms SCS map data, which shows the parcel is composed of five different soil types (see Exhibits 3-1 & 3-2). Over half of the property (≈54.55 acres) is underlain with Philomath silty clay (Soil Type 107C) and Philomath cobbly silty clay (Soil Type 108F). These soil types are extremely poor for growing conifers. The remaining portions of the parcel are underlain with McDuff clay loam (Soil Type 81D), Panther silty clay loam (Soil Type 102C), and Ritner cobbly silty clay loam (Soil Types 113E and G). Of these soil types, only the McDuff clay loam and Ritner cobbly silty clay loam are good soils for growing conifer, and these particular soil types only cover 15.26 acres of the entire parcel.

V. RESULTS OF INCOME CALCULATIONS

Average Gross Annual Income Through A Complete Rotation

The Empirical Yield Tables (see Exhibits 4-1 and 4-2) were used to obtain total volume per acre in scribner board feet volume, the measurement needed in order to calculate income potential (see Introduction). These yield tables are calculated using King's 50 year site class index. Adding all the soil types together will give a total for the entire parcel. A fifty year rotation (growth cycle to final harvest) was used. This time span was adopted as the standard, by a consensus of the Board of Commissioners in March 1997, and is included in the Supplement to the Marginal Lands Information Sheet.

Once a total volume at harvest age has been calculated, the average gross annual income can be found by dividing the total revenue at the time of harvest by the number of years in the rotation. Douglas-fir log prices were used, because they are the highest log prices. This will result in the highest income figure, because Ponderosa pine (used in a portion of the cubic foot growth calculations) has never been worth as much as Douglas-fir.

Using industry-recognized price information from the Oregon State Department of Forestry Quarterly Report of Douglas-fir log prices for 1983, the gross worth of a fully stocked stand on this parcel can be calculated, for the time period required by the Marginal Lands Statute ORS 197.247 (1)(a). By calculating a gross worth based on a fully stocked stand of Douglas-fir, a maximum gross worth scenario for the applicant can be shown.

CALCULATIONS:

The calculations assume fully stocked Douglas-fir stands on the entire parcel. The stands currently on the parcel are not fully stocked and large portions of the parcel have not grown **any trees** for as far back as aerial photos have been taken. An aerial photo record of the parcel show no trees growing in the 1930's (see Exhibits 5-1, 5-2 and 5-3). The calculations also include areas under the powerlines where the power companies will not allow trees to grow to merchantable size. In some cases Christmas tree growth is allowed, as long as they are cut long before reaching merchantable size or height. However, in order to present the most optimistic calculations, I have assumed full stocking throughout the entire parcel. In this manner it can be seen that any lower stocking would, by default, meet the criteria.

Site Index Ratings from Tables (see Exhibits 6-1 and 6-2) -- 50 Year Site Index

	50 Year Site Index
McDuff clay loam (81D)	112
Ritner cobbly silty clay loam (113 C, E & G)	107

Dixonville-Philomath-Hazelair complex - no Site Index given due to multiple soil types, poorly suited for conifer growth
Panther silty clay loam - poorly suited for conifer growth, no Site Index given
Philomath silty clay - poorly suited for conifer growth, no Site Index given
Philomath cobbly silty clay - poorly suited for conifer growth, no Site Index given
Steiwer loam - poorly suited for conifer growth, no Site Index given

A board foot volume per acre can be obtained from the Empirical Yield Tables for soil types which have a Site Index number (see Exhibit 4-2). Board foot volumes for the remaining soils were obtained by comparing the cubic foot productivity figures for these soils (soil types with no Site Index number) with the productivity figures for soils with Site Index numbers. The productivity analysis presented in this report presents Douglas-fir cubic foot per acre per year numbers for all the soils in question, except for the Philomath silty clay (107C) and Philomath cobbly silty clay (108F). These soils use ponderosa pine productivity figures (see Productivity discussion). The Douglas-fir productivity number for both of these soils is the same; 45 cu.ft./ac./yr. (see Exhibits 7-1 and 7-2). Through comparison, a ratio can be used to obtain a board foot per acre volume for all the soils. For the base numbers I used the average of the two soils with Site Index numbers and volume figures from the above mentioned table.

McDuff clay loam	158 cf./ac./yr.	25,470 bd.ft./ac.*
Ritner cobbly silty clay loam	149 cf./ac./yr.	23,005 bd.ft./ac. *
Average	307 ÷ 2 = 153.5 cf./ac./yr.	48,475 ÷ 2 = 24,238 bd.ft./ac.

Example: Panther silty clay loam - 45 cf./ac./yr.** ÷ 153.5 cf./ac./yr. = .293

.293 X 24,238 bd.ft./ac. = 7,102 bd.ft./ac./yr. for Panther silty clay loam

*See Exhibit 4-2. **See Productivity Table page 10.

This procedure can then be used on all of the remaining soil types which have no site index numbers. The volume figures obtained are presented in the table shown below.

Volume Total for Entire 113.74 acres		Total Volume (Board Feet)
43C Dixonville-Philomath-Hazelair complex	-- 6.64 ac. @ 8,527 bd.ft./ac.	56,619
43E Dixonville-Philomath-Hazelair complex	-- .44 ac. @ 9,948 bd.ft./ac.	4,377
81D McDuff clay loam	-- 5.60 ac. @ 25,470 bd.ft./ac.	142,632
102C Panther silty clay loam	--14.68 ac. @ 7,106 bd.ft./ac.	104,316
107C Philomath silty clay	-- 39.61ac. @ 7,106 bd.ft./ac.	281,469
108F Philomath cobbly silty clay	-- 30.20 ac. @ 7,106 bd.ft./ac.	214,601
113C, E & G Ritner cobbly silty clay loam	-- 13.38 ac. @ 23,005 bd.ft./ac.	307,807
125C Steiwer loam	-- 3.19 ac. @ 4,737 bd.ft./ac.	15,111
Total	113.74 ac.	1,126,932

A 50 year old stand on this site should have approximately 40% 2 SAW, 50% 3 SAW and 10% 4 SAW. If anything, these grade estimates err on the high side. In all probability there would be less 2 SAW and more 4 SAW. However, these figures are used to represent the highest possible log price scenario for the applicant.

Total Volume - 1,126.93 MBF (thousand board feet)

450.77 MBF of 2 SAW @ $255/MBF*	$114,946
563.47 MBF of 3 SAW @ $215/MBF*	121,146
112.69 MBF of 4 SAW @ $200/MBF*	22,538
Total Projected Gross Revenue	$258,630

*See Exhibit 8.

AVERAGE GROSS INCOME -- $258,630 ÷ 50 YEARS = $5,173/YEAR

The above calculations show that, even with the most optimistic potential growth figures for a rotation, the parcel cannot produce $10,000 per year in income. The above calculations **assume full stocking** on all of the land throughout the entire parcel, even though obtaining the stocking level that these projections are based on would be extremely difficult, if not impossible, to reach. This is due to rocky soil conditions, lack of moisture, aspect of the site, existing areas within the parcel which have never grown trees and growth constraints due to powerline easements.

VI. RESULTS OF PRODUCTIVITY CALCULATIONS

Cubic Feet Per Acre Per Year Growth

The potential productivity must look at all tree species. The only other species capable of outproducing Douglas-fir, **under certain conditions**, is ponderosa pine. Specific soils with poor growth potential are better suited to ponderosa pine. On the better soils Douglas-fir will easily outcompete ponderosa pine. Generally speaking the same holds true for extremely poor soils. However, on soils in the mid range of site classes, on southern or western exposures, ponderosa pine can and does outcompete Douglas-fir. Therefore, on the Philomath silty clay (107C) and Philomath cobbly silty clay (108F) ponderosa pine cubic foot per year growth figures have been used. However, for this test, I have only included areas which can and do grow ponderosa pine trees. From these areas I obtained a ponderosa pine site index number from trees bored on the site (see below). Using this site index number, a cu.ft./ac./yr. figure can be obtained from ponderosa pine growth tables (see Exhibit 9).

I have deducted areas, within the above mentioned soil types, where no trees exist and/or have never existed (see Exhibits 1, 5-1, 5-2 and 5-3). These areas have been designated as grassland with exposed rock. I have extensive experience trying to establish pine on similar sites by planting and replanting; the mortality rate is extremely high and it is virtually impossible to establish fully stocked stands. For a tree to grow, there has to be enough soil depth for its roots to become established. The best soils will not grow trees if the soil is not deep enough for the roots to establish themselves. Thin soils on top of rock do not hold moisture for long; therefore these areas, particularly on south to southwestern slopes, become extremely dry in the summer months. While these poorer soils are better suited to ponderosa pine than Douglas-fir, the pine is still limited by soil depth and moisture constraints. The reason ponderosa pine does well on sites similar to these in eastern Oregon, is snowfall. The snow melts throughout the spring and early summer, providing moisture for the trees. The sites being looked at in the Willamette Valley area do not receive snow, consequently south to southwest slopes become extremely dry by early summer.

This is just one example of why a soil which is suited for pine may not support a **fully stocked** stand, capable of producing the growth predicted in the tables. There are not many fully stocked stands pine which have reached rotation age in the Willamette Valley and surrounding foothills. This is the reason there are no productivity tables for ponderosa pine in the Willamette Valley yet. More data is needed before statistically viable tables cannot be compiled. Finally, since **none** of the available soils data for Lane County show any site index numbers or growth figures for ponderosa pine, I have only included ponderosa pine growth in areas of the aforementioned soils that have trees growing on them at the present time.

This is also the reason so few soils have site index ratings in Lane County's data base. The productivity of the soil itself is only **one** determining factor of a soil's potential site index rating. Other factors include aspect, ground water levels and moisture content, rainfall amounts, temperature averages and variations, slope and elevation. These are the reasons that growth and/or productivity of a tree species growing in a specific soil type are a **reflection** of **all** of the site conditions, not just the soil itself. Consequently, to assign a site index number to a specific soil, huge amounts of data must be collected from as many different site conditions, aspects, elevations and geographical areas as possible. And for this data to be meaningful, it must come from fully stocked stands of the species being looked at. Even then the site index number is an **average** of all the collected data. For this reason I have only included ponderosa pine growth for the areas currently growing pine, where a valid site index number could be obtained from an on site inspection and boring site trees.

The ponderosa pine on this site and west of the Cascades is called valley pine. However, studies of valley ponderosa pine are not complete enough to produce any growth tables or site index tables. Currently there are no site index tables for pines west of the Cascades. The Willamette Valley Ponderosa Pine Association is collecting data, however most of the studies are only 20 years old, with the oldest data collected on some 30 year old trees. The biggest problem is finding an entire stand of ponderosa pine; very few exist at the present time. In twenty more years there will be 40-45 year stands which were planted 15-20 years ago; currently there is not enough data for any growth tables to be published on ponderosa pine stands. This is confirmed by the Willamette Valley Ponderosa Pine Association.

Therefore, I used site index and growth tables for eastern Oregon ponderosa pine. These are the closest tables available. I obtained the site index to use by boring dominant and codominant trees for the age and shooting a total height. From these two measurements a site index number can be obtained from the tables. This methodology is accepted by the ODF. The site trees bored are listed below.

Ponderosa Pine Site Trees Bored on the Parcel:

Breast Height Age	Total Age*	Total Height	Site Index**
47	54	67'	100
48	55	77'	110
47	54	53'	80
52	59	81'	106
53	60	81'	110
47	54	60'	90
52	59	79'	110
46	53	68'	100
50	57	77'	105
48	55	73'	105
			1,016

Throwing out the lowest site index of 80 leaves 936 ÷ 9 = 104
*Total age includes adding 7 years, which errs on the optimistic side (see Exhibit 10). You must add between 5 and 10 years to a breast height age; 5 years being Site I ground, 10 years being Site IV ground. The Ogle parcel **is not** Site I ground.
**Interpolated using Meyer's eastern Oregon tables (see Exhibit 11).

From my on site analysis and photo delineation of the soil types (using a light table and overlaying the **Lane County soil maps** on the aerial photos, I have calculated the acreages shown on the following tables. These soil maps are in the record already. To arrive at the acreages shown I used the acres presented by Lane County and took proportions of these acres by dividing the amount of grassland shown on the photo with the acreages presented by the county. Since the counties acreages are the **accepted acreages**, this is a more accurate calculation of acres than using the approximate scale shown on the photo.

I used a figure of 110 cf/ac/yr. for the ponderosa pine growth for this site index of 104 (see Exhibit 9). I have also included a ponderosa pine table from northern California (see Exhibit 12-1),which shows a figure of 108 cf/ac/yr for this site class. This figure was obtained using interpolation (see Exhibit 12-2). I will use the higher figure to error on the optimistic side. The DF productivity figures are from Soil Service and/or NRCS data (see Exhibit 6-1, 6-2 and 7-1).

A total of 24.455 acres of the parcel are thin soils over rock or exposed rock. These areas have not grown trees for as long as aerial photo records have been kept (see Exhibits 1, 5-1, 5-2 and 5-3). It includes a total of 14.74 acres within soil type 107C and 9.715 acres within soil type 108F. I have shown these acres at the bottom of the table.

CALCULATIONS:

Productivity Table for Portions of Tax Lots 303 &304 Totaling 73.74 Acres

	Acres	Growth/Year	Total Growth
81D McDuff clay loam	5.600	158 Cu.Ft./Ac.	884.800 Cu.Ft.
102C Panther silty clay loam	14.683	45 Cu.Ft./Ac.	660.735 Cu.Ft.
107C Philomath silty clay*	16.389	110 Cu.Ft./Ac.	1,802.790 Cu.Ft.
108F Philomath cobbly silty clay*	2.955	110 Cu.Ft./Ac.	325.050 Cu.Ft.
113E & G Ritner cobbly silty clay loam	9.655	149 Cu.Ft./Ac.	1,438.595 Cu.Ft.
Grassland with exposed rock	24.455	0 Cu.Ft./Ac.	0 Cu.Ft.
Totals	73.737		5,111.97 Cu.Ft.

Average Growth Potential -- 5,111.97 Cu.Ft. ÷ 73.737 acres = **69.327 Cu.Ft./Ac./Yr.**

*These growth figures are for ponderosa pine for Site Index 104 (see Exhibit 9) because pine will grow better on these soils than Douglas-fir. All other growth figures are for Douglas-fir, because Douglas-fir will grow faster and outproduce pine on these soils.

A portion of the acres delineated on both tax lots are underneath the two powerlines crossing the property (see Exhibit 1). These areas will never grow trees due to the power companies continually cutting them down to keep their corridors clear. This has been my experience through all the years of consulting with land owners and forestland management activities I have conducted. The power companies will also cut trees **outside** the powerline corridors if they feel that a tree constitutes a danger to the powerlines themselves, if the tree were to blow down.

The productivity tables shown below deduct all powerline acreage, which have no trees at the present time and will not have trees in the future, and all grassland with exposed rock areas that are not under the powerlines. For this reason the grassland with exposed rock areas show different acreage amounts. Powerline acreage was deducted from all soil types; **if grassland acreage shown above was under a powerline it was deducted from grassland acreage shown below.**

CALCULATIONS:

Productivity Table for Portions of Tax Lots 303 &304 Totaling 73.74 Acres

	Acres	Growth/Year	Total Growth
81D McDuff clay loam	5.064	158 Cu.Ft./Ac.	800.112 Cu.Ft.
102C Panther silty clay loam	12.699	45 Cu.Ft./Ac.	571.455 Cu.Ft.
107C Philomath silty clay*	14.288	110 Cu.Ft./Ac.	1,571.680 Cu.Ft.
108F Philomath cobbly silty clay*	1.824	110 Cu.Ft./Ac.	200.640 Cu.Ft.
113E & G Ritner cobbly silty clay loam	9.655	149 Cu.Ft./Ac.	1,438.595 Cu.Ft.
Powerline	9.708	0 Cu.Ft./Ac.	0 Cu.Ft.
Grassland with exposed rock	20.499	0 Cu.Ft./Ac.	0 Cu.Ft.
Totals	73.737		4,582.482 Cu.Ft.

Average Growth Potential -- 4,582.482 Cu.Ft. ÷ 73.737 ac. = **62.146 Cu.Ft./Ac./Yr.**

*These growth figures are for ponderosa pine for Site Index 104 (see Exhibit 9). All other growth figures are for Douglas-fir.

All of these calculations show that the parcel being analyzed is incapable of producing 85 cu.ft./ac./yr., the measuring parameter for marginal soils west of the Cascade Range.

VII. CONCLUSION

The analysis presented shows conclusively that this property will not support a merchantable stand of timber, of sufficient production capability, to meet or exceed the Marginal Lands Income test:

1) The estimated gross income based on a 50 year rotation for the entire 113.74 acre parcel would have been $258,630 in 1983. The average annual gross income would have been $5,173 per year. Because $5,173 is less than $10,000/year, the property meets the following statutory test for Marginal Lands: ORS 197.247 (1)(a) "The proposed marginal land was not managed during three of the five calendar years preceding January 1, 1983, as part of a ... forest operation capable of producing an average, over the growth cycle, of $10,000 in annual gross income."

2) The subject parcel produces less than 85 cu. ft./ac./yr. of merchantable timber volume. The portion of the parcel being looked at for marginal lands designation produces only 69.327 cu.ft./ac./yr; only 62.146 cu.ft./ac./yr. if ground under the powerlines are not included. This has been determined by Lane County, and the State of Oregon, to be the measuring parameter for marginal soils west of the Cascade Range; as defined in ORS 477.001(21).

In summary, I find from the specific site conditions present, empirical yield tables, SCS data, Lane County Data and experience with similar lands, that this property is ill suited to the production of merchantable timber and use as land for forestry purposes. It is my opinion that this parcel should be classified as marginal land.

Sincerely,

Marc E Settle