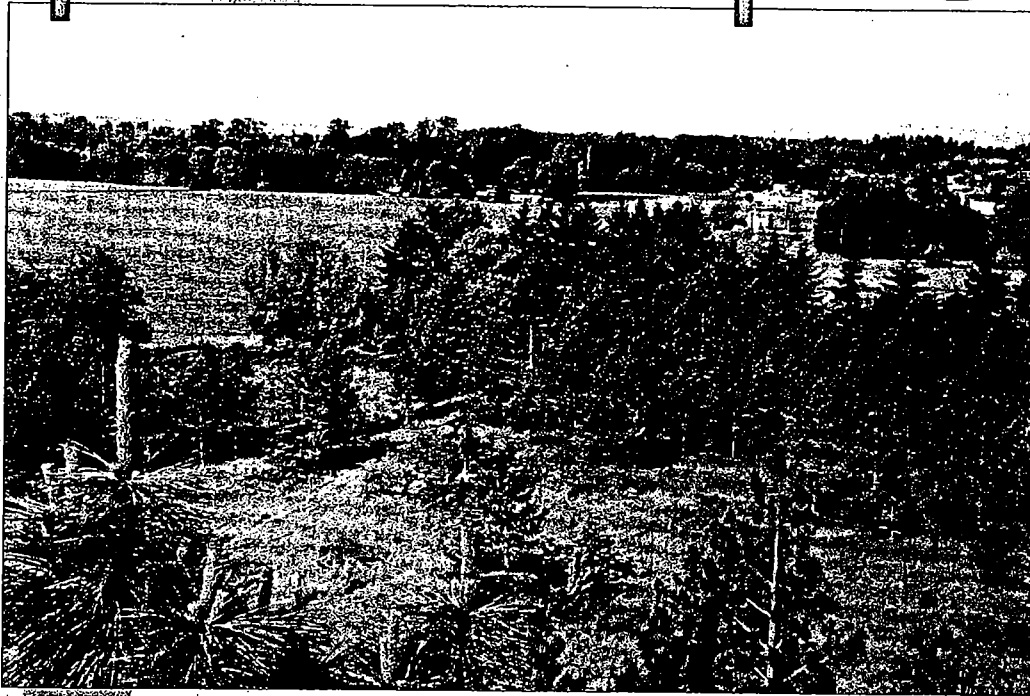


EM 8805 • May 2003
\$24.00

EXHIBIT 1

*Establishing
& managing*
ponderosa pine



in the Willamette Valley

OREGON STATE UNIVERSITY

EXTENSION SERVICE

1.1

Managing stands of Willamette Valley ponderosa pine

R. Fletcher

Both natural and planted stands of ponderosa pine can be managed using thinning, pruning, and fertilization, although little research has been done on these practices for the Willamette Valley race of ponderosa pine. What is known has been gathered from general observation, from small test plots, and from a survey of native stands by OSU Extension forester Max Bennett.

Natural stand development

It is difficult to define what normal stand development means for ponderosa pine in the Willamette Valley.

Historical stands apparently were either scattered groves of large trees in grassy bottoms or mixed-species stands in the foothills. In either case, the indigenous tribes' broad-scale burning shaped those forests in ways not available today.

Current stands have come about by colonizing neglected areas or soils with severe limitations for other tree species. The stands we see today are much denser than their counterparts in the past. What this means for future development and growth is uncertain. However, because ponderosa pine is a shade-intolerant species, preferring open spaces, it is likely that the high stocking will be reduced over time, either through insect and disease outbreaks, or some weather-related event, or by selective thinning.

Expected growth of Valley ponderosa pine stands

Anderson's 1938 study on central Willamette Valley ponderosas reported young ponderosas grew rapidly, but growth rates peaked by about 30 years of age. The small sample of trees had a 20-year-old tree with a 15-inch diameter at breast height (DBH), while a 100-year-old tree was only 34 inches in diameter. The pine races study that Munger began in 1928 showed a height growth spurt between 20 and 30 years of age, but the trees from the best seed source in the study have continued to grow well in height up to their last measurement at 65 years of age.

Max Bennett's recently completed study of 16 native Willamette Valley ponderosa stands on 12 different soil types found a wide variety of growth rates, depending on soil type (Table 3, page 12). Site indexes (estimates of site productivity based on

Figure 13.—
Regeneration of a
natural stand of
ponderosa pine
old growth on
Willamette National
Forest, near
Oakridge, OR.

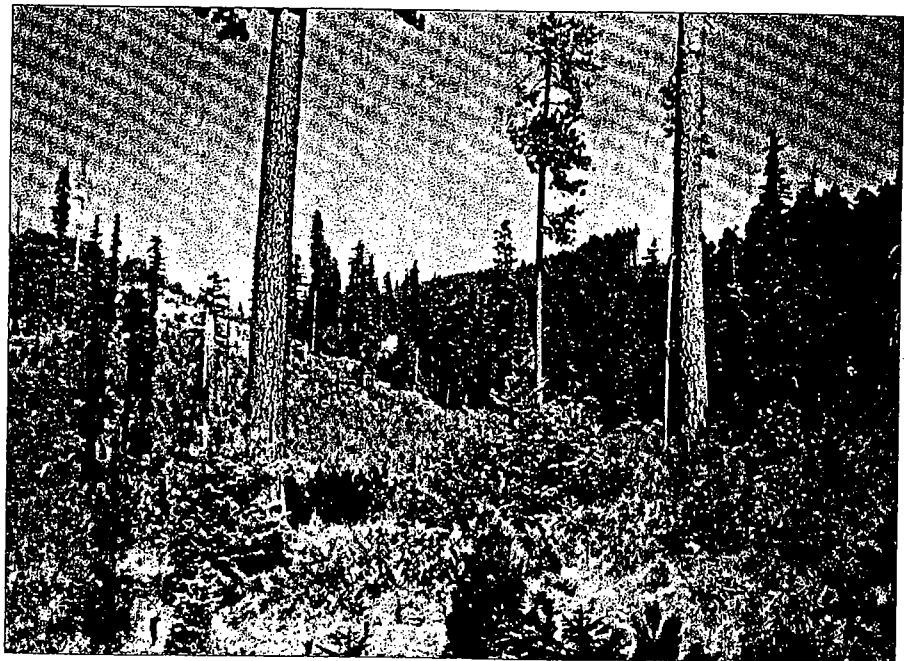




Figure 14.—Native, 40-year-old ponderosa pine stand on wet soil near Lacomb, OR.

how tall a tree of a given species will grow on a site in a given number of years) for each site were extrapolated from existing site index curves from ponderosa pine in southwest Oregon, based on expected total height at 50 years.

On most sites, ponderosas are expected to grow nearly 100 feet in the first 50 years. Exceptions were on very severe sites where the high water table and shallow soils converged. When these trees will slow down or stop growing taller is not known and undoubtedly will vary widely by soil type, but large specimen trees on suitable soils have grown up to 150 feet tall.

Table 3. Growth of Willamette Valley natural stands

Soil type	Height	Age	Site index (50)
Bashaw silty clay loam	98	59	92
Dayton silt loam	84	42	98
Dixonville/Hazelair/Philomath	96	98	63
Dupee silt loam	110	56	101
Hazelair silty clay* loam	93	52	92
McBee silty clay loam	104	59	92
Philomath cobbly, silty clay*	87	42	104
Ritner cobbly, silty clay loam	101	54	95
Salem gravelly loam	111	63	93
Waldo silty clay loam	83	41	96
Witzel very cobbly loam	92	98	59

* An average of more than one site

No studies of volume growth per acre have been done. Currently, large stands of ponderosa are few, but they appear to have volumes similar to local Douglas-fir stands of similar ages. The exception may be on the very severe (either wet or dry) sites, where volumes per acre will be less.

Managing natural stands of Valley ponderosa pine

If you are one of the lucky Willamette Valley landowners with a natural stand of ponderosas on your property, your trees might benefit from thinning or possibly pruning if they are still pole size.

Thinning

Thinning spaces out trees and improves the health and vigor of the overall stand. The key feature is not what you cut but the stand left behind after harvest. It is these trees, generally referred to as crop trees, that will determine future growth and overall stand health. In deciding which will be crop trees, and which ones you'll remove, consider the following factors.

1. Overall stand age and stocking Stands that respond best to thinning are young, moderately stocked ones. Older stands (50 years plus) likely have passed the time when thinning will greatly benefit growth rates, unless the stand was previously thinned. Thinning an older stand still might make sense, however, if you want to reduce longer term competition for crop trees or to remove unhealthy trees. Very dense stands may need several light thinnings, spaced by recovery periods, to move the stand gradually to a healthy density.

Possibly the most important thinning is a very early one, while the trees are not yet of merchantable size. This precommercial thinning sets the growth curve for the future stand and can have a dramatic, positive impact on growth if done at the right time.

2. Type of future stand desired If you want an even-age stand, then it makes sense to space crop trees evenly for maximum

1-3

growth. If you want to develop an uneven-age stand, your selection may be more in groups, to provide open areas for young trees to establish.

3. Individual tree characteristics The arboricultural principle of "right tree, right place" works well for forest thinning, also. If your need in a particular spot is high growth, then leave the best growers. If you want to leave a wildlife tree, look for one with big branches and good nesting opportunities. Even trees with obvious defects can be valuable in providing habitat for cavity-nesting birds such as woodpeckers. If you plan a continual-selection thinning system to promote natural regeneration, then you want to get rid of the super-dominant trees and keep the vigorously growing medium-size trees that have narrow crowns and fine branches.

4. Individual tree spacing As trees get larger, they need more room to grow. Foresters' rule of thumb for this size-space relationship is based on diameter of the tree at breast height (DBH).

For example, a tree 12 inches in diameter might need 16 feet of space to be happy, while a 20-inch-diameter tree might need 24 feet. This often is referred to as the "D+ rule."

Although there is no known D+ relationship for Valley ponderosa pine, they likely need a bit more space than Douglas-fir because of their intolerance of shade. Ponderosa might be more comfortable at a minimum spacing of D+2 or D+3. For a tree 12 inches in diameter, this means the next closest 12-inch tree should be at least 14 or 15 feet away. You might want to space your 12-inch trees 18 to 20 feet apart (i.e., at D+6 or D+8), anticipating that they will continue to grow in diameter over time and eventually get back to the minimum D+2 spacing.

Other ways to keep track of tree spacings:

- On a per-acre basis, either by total number of trees, or
- Some other measure of density such as basal area (the cross sectional area of a tree, measured at breast height), or
- Relative density (the amount of basal area on a given stand compared to the maximum that can possibly grow)

For more information on measuring stand density, refer to OSU Extension publication

EC 1190, "Stand Volume and Growth: Getting the Numbers" (see page 39).

As more becomes known about the Valley ponderosas, better per-acre guidelines will be developed.

Managing plantations of Valley ponderosa pine

During the past decade, thousands of acres of Valley pine plantations have been established in the Willamette Valley. These represent a very different type of forest stand than has ever existed naturally.

Historical records indicate that natural stands were widely spaced groves of large trees, intermixed with hardwood species such as oak and ash. The pine plantations of today represent fast-growing monocultures whose growth far exceeds that of their natural cousins. No management history of similar stands exists, so only time will reveal how these plantations will develop. Experience to date, however, suggests some practices that are useful in tending young plantations.

Thinning

One genetic trait in the Valley pine population is a wide variance in tree forms.

Progeny from various parent trees differ vastly in such characteristics as forking, branch angle, number of branches, and growth rate. By years 5 to 10, characteristics of individual trees in plantations are easily distinguishable, and you can favor trees with characteristics suited to your objectives. For example, if timber production is a primary goal, trees with high wood-to-branch ratios and good growth can be favored in thinning programs. Likewise, in riparian plantings where lots of branching can be good for

Figure 15.—Five-year-old pine plantation on a good site near Albany, OR.



1.4

LAND USE PLANNING NOTES <<<<

NUMBER 3 X APRIL 1998



"STEWARDSHIP IN FORESTRY"

PURPOSE: This technical bulletin has been developed to help landowners and local governments when they must use an alternative to the USDA Soil Survey to determine the productivity of forestland. Under OAR 660-06-005 "where SCS data are not available or are shown to be inaccurate, an alternative method for determining productivity may be used. An alternative method must provide equivalent data and be approved by the Department of Forestry." This paper describes the methodology that the Department approves and provides guidance and other information necessary to use that methodology. We have also included some background information to answer some commonly asked questions about the cubic foot productivity class system.

Why use the average annual cubic foot production in land use decisions?

The Department of Forestry advises using the USDA Cubic Foot Productivity Class¹ system, as opposed to other systems of measure, when making land use planning decisions because it measures the relative productivity of the soil, it is not dependent upon the condition of the forest or the species of trees currently growing on the site, and it is more consistent than other measures.

The cubic foot productivity class system ranks soils based upon the mean annual increment measured in cubic feet at the point in time where the culmination of mean annual increment (maximum average annual growth) occurs. This is the average growth rate of the timber over the life of the stand measured at the peak of that average growth rate. The table below shows the potential timber yields of productivity classes 1 - 5 in cubic feet per acre per year (cuft/ac/yr).



¹Field instructions for forest surveys in Washington, Oregon, and Northern California. USDA Forest Service, PNW Range and Experiment Station.

**CUBIC FOOT PRODUCTIVITY
CLASSES**

<u>CODE</u>	<u>POTENTIAL YIELD-MEAN ANNUAL INCREMENT</u>
1	225 or more cuft/ac/yr
2	165 to 224 cuft/ac/yr
3	120 to 164 cuft/ac/yr
4	85 to 119 cuft/ac/yr
5	50 to 84 cuft/ac/yr

Cubic foot productivity class was developed to compare the relative productivity of different soils. Other measures which might be used to compare different parcels, such as site class or site index, are not consistent between species and authors. Site class is commonly used on the west side to describe the productivity of Douglas-fir forests, but site class is only used for Douglas-fir and not for other species. Site index is calculated as tree height divided by tree age at a base age of 100 or 50. Since on the same area, in the same length of time, different species grow to different heights, site index is not consistent between species.

For example cubic foot productivity class III can produce between 120 and 164 cubic feet per acre per year from a fully stocked natural stand. In the next column is a comparison with several species and site indexes.

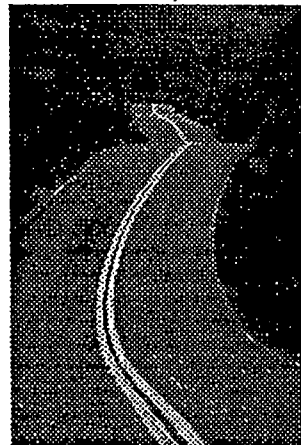
**CUBIC FOOT PRODUCTIVITY
CLASS 3**

(120 - 164 cuft/ac/yr)

Site Index Equal to Productivity Class III

Douglas-fir (100 yr Site Index)	130 - 160
Western Hemlock (100 yr Site Index)	100 - 110
Ponderosa Pine (100 yr Site Index)	120 - 130
White Fir (50 yr Site Index)	60 - 70
Engelmann Spruce (50 year Site Index)	80 - 90

Another advantage of using cubic foot productivity class is that the ratings are available for most forestland without professional assistance. The published soil surveys contain a rating which can be used by county planners or private landowners to rate productivity and using the information does not require visiting the site or taking measurements.



Why don't we use board feet instead of cubic feet?

Cubic foot volume is a form of measurement commonly used in forestry research and forest management planning. It is a physical measurement based upon the actual volume of wood. On the other hand, board foot volume is based upon a series of rules. The board foot rules were developed to try to determine the amount of lumber which could be sawed (at that time) from a range of different diameter logs. Although its predictive abilities are out of date (1 board foot of log now produces from 1.7 - 2 board feet of lumber), board foot rules continue to be the most common measure used to buy and sell logs in the Northwest. The problem with converting cubic feet to board feet is that the conversion factor is not a constant. Because board foot volume is determined by a rule, one cubic foot of wood from a log with a scaling diameter (small end diameter) of 6 inches contains 3.32 board feet, while one cubic foot of wood from a log with a scaling diameter (small end diameter) of 30 inches contains 6.86 board feet. Therefore as the average diameter of a stand increases in size, the board foot/cubic foot ratio of the stand also increases. To complicate matters further, the length of the logs cut from the tree effects the conversion from cubic feet to board feet. Since trees are tapered and board foot is measured from the small end of the log, cutting the tree into different length logs changes the number of board feet contained in the tree. Because of this difference, the exact number of board feet contained in a stand of timber cannot be determined without knowing how the trees will be bucked into logs.

Because the board feet contained in a stand of timber depends on the average diameter of the stand and the way the trees are bucked into logs, the ratio of board feet to cubic feet is not constant. Comparisons such as soil productivity are much easier to make based upon a constant volume measure such as cubic feet. That is why it is more commonly used in the more technical forestry applications.

General Procedures to Challenge the Site Productivity Listed in the Soil Survey

Before deciding to use an alternative method of measuring the productivity of forestland, documentation should be produced showing that an attempt has been made to use the soil survey and either the soil(s) in question have no rating, or reasons exist indicating that the soil survey may be inaccurate. Where either of these two circumstances exist, a soil scientist from the USDA Natural Resource Conservation Service (NRCS, formerly SCS) should be contacted.

In many cases soils that are primarily used for agriculture were not given ratings for forestry. However, this does not mean they are not capable of growing trees. On the contrary, they may be highly productive, and a NRCS soil scientist may be able to provide a rating of that soil's forest capability. An NRCS soil scientist should also be able to advise you about the procedures used to conduct the soil survey and the accuracy of that survey as it relates to the property and soils in question. The advice received may save both the land owner and local official time and money.

23

Because the soil survey is not site specific information, The Department of Forestry has agreed to approve methods that would allow a land owner to use site specific information to determine the productivity of the land when applying for a dwelling or other land use decision.

The process should work something like this:

1. The Department of Forestry has approved a methodology for calculating site productivity (the details are described below in this document). When the landowner contacts the county with concerns about the productivity rating of their property, they are provided with information about the required methodology.
2. The landowner must have an independent, knowledgeable person, like a consulting forester, measure the trees on the property and calculate the cubic foot site class using the approved methods. Plots must be taken to measure the productivity of each different soil type and aspect on the property. The consultant must use care when selecting site trees to obtain an accurate measurement, and the consultant's report must provide adequate detail to determine whether the approved methods were followed.
3. The consultant shall provide a copy of the report to the county to use in making land use decisions. If the county has

questions about whether the consultant followed the methodology, the Department of Forestry may need to review the report. However, because this is a land use decision, the county must make the final decision to accept or reject the work of the consultant.

Methodology Approved by the Department of Forestry for Calculating Site Productivity

The Department of Forestry does not measure sites for landowners. The landowner needs to have an independent qualified person, such as a consulting forester, take the measurements and calculate the cubic foot site class. The methodology the Department of Forestry approves to determine the productivity of an area is contained in the *Field instructions for forest surveys in Washington, Oregon, and Northern California. USDA Forest Service, PNW Range and Experiment Station*. Equivalent published methodology is more widely available from a Weyerhaeuser research paper, by King². These papers describe how to select site-trees and calculate site index. A second paper, from the US Department of Agriculture³, uses site index information

²King, James E. 1966. Site index curves for Douglas-fir in the Pacific Northwest. Weyerhaeuser Forestry Paper No. 8. Weyerhaeuser Forestry Research Center, Centralia, WA.

³USDA. 1986. Culmination of mean annual increment for commercial forest trees of Oregon.

(continued on next page)

24

as determined from on-site measurements to reference a set of cubic foot productivity tables. We approve this method because it is based on site specific measurements and it will produce results that are consistent with the Soil Survey.

A summary of the methodology and the necessary tables to calculate site class for the three most common forest types are included below. The methods listed in this paper can be used in combination with other published site index and yield tables if the site is not suited to one of these species. However, the use of other tables or the use of other species to determine site index must be approved by the Department of Forestry on a case by case basis.

Plots must be taken to measure the productivity of each different soil type and aspect on the property. Selection of site-trees (trees selected to determine site index) is a critical part of accurately determining the productivity of the land. To be used, site-trees must have remained in a dominant or co-dominant position throughout their life. If the land has been selectively harvested in the past, most or all of the dominant trees in the stand may have been removed. Basing site index calculations on the remaining trees, grown in lower crown positions,

Technical Note No. 2. USDA, Soil Conservation Service, Portland, OR. (Note: the SCS - Soil Conservation Service is now the NRCS - Natural Resource Conservation Service)

will not accurately measure site productivity. In some cases it may be difficult to find enough site trees on the property to accurately determine productivity. If insufficient dominant trees exist on the property to determine the site index, site-trees may be selected from adjacent properties with the same aspect, elevation, and soil type.

If the parcel is a forest site and no trees are available for site index calculations, or if the site index cannot be determined accurately from the existing timber in the area, then soil survey methodology will be required to accurately assess the site productivity. To map the area and provide site specific data that is more accurate than the USDA Soil Survey will require the landowner to employ a soil scientist to do a higher intensity soil survey. The qualifications and procedures for conducting such a survey are contained in OAR 603-80-0040 (3). This survey must provide detailed information on the soil types represented on the property.

General Rules for Selecting Site Trees

1. If possible, use the species that dominates the area. Height from 15 to 20 dominant and co-dominant trees and age counts on about 10 trees should be sufficient to determine site index if the area is homogeneous. Additional plots will need to be taken to represent different soil types and aspects across the property.
2. You may select site trees of different species as long as they use the same site table.

3. Site index should not vary by more than 20 or 30 between site trees (as indicated on each site table), unless the difference can be explained by actual site variation. Use the site index tables below to compare site measurements.
4. If you select Douglas-fir or grand fir site trees use the site tree selection method for King's Douglas-fir table, outlined below. For other site tree species, use the site tree selection criteria for other species.

Method for Selecting Site Trees for King's Site Index Table
(Use for Douglas-fir and grand fir)

1. Within the plot area, locate an approximately circular area that encompasses 25 trees (the "site index clump") and that is representative of the site being sampled. When there is a choice, favor well-stocked areas over sparse areas. When counting trees, include only Douglas-fir with normally-formed tops; do not include understory trees that are both younger and shorter than the general crown canopy.
2. Of these 25 trees, select the 5 with the largest dbh as site trees.
3. Any site tree with a clear history of suppression should be rejected, and the next largest tree selected if it is suitable. However, you may select a suppressed tree over a shorter, suppression-free tree of

the same age.

4. If a 25-tree clump is not available, a smaller clump may be used. You should still limit the site tree subsample to the 1/5 of the trees in the clump with the largest dbh **unless** this gives you less than three site trees.

Method for Selecting Site Trees for Other Site Index Tables

1. Select trees that are or have been free from suppression for their entire lives. A tree that has been suppressed will have closely-spaced annual growth rings on all or part of its increment core.
2. Select dominant trees.
3. Trees less than 50 years old are undesirable if older trees are available. For ponderosa pine, trees 60 to 120 years old are most desirable.
4. Site trees should be evenly distributed across the plot area.
5. Select trees that show no signs of top-out, such as crooks or forks, **unless** these trees are taller than normally-formed trees of the same dbh.
6. If no suitable site trees are available from the property, select dominant trees from a nearby area with the same general aspect, elevation, and soil type. Note the location of the site trees in your report.

Site Tables:

Depending on the species of site tree selected, use the appropriate table to determine site index.

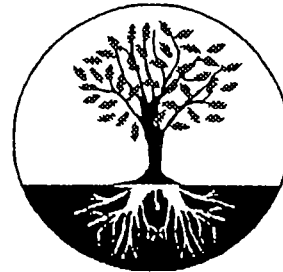
1. King's Douglas-fir table. Use for Douglas-fir and grand fir.
2. Barnes western hemlock table. Use for western hemlock and Sitka spruce.
3. Meyer's ponderosa pine table. Use for ponderosa pine and Jeffrey pine. Use this table when in stands that are predominantly pine, or when pine site trees are all that are available (except in the Willamette Valley).

Published by:

Oregon Department of Forestry
Resource Planning Office
2600 State Street
Salem, Oregon 97310

How to use site tables:

The following site index tables are "upper limit tables." This means that when a tree height indicates a site index that falls between two site indices listed you should use the higher one. Example: Site tree is Douglas-fir, 75 years old at breast height, 115 feet tall. King's Douglas-fir site index table indicates that a height of 115 feet at age 75 falls between site index 80 and 90. Site index is therefore 90.



To Order Copies of This Publication
Call or Write:
Oregon Department of Forestry
Resources Planning
2600 State Street
Salem, Oregon 97310
503-945-7411

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

Portland, Oregon

SOIL CONSERVATION SERVICE

FORESTRY NO. 2 Revised

EXHIBIT 3

June 1986

CULMINATION OF MEAN ANNUAL INCREMENT FOR COMMERCIAL FOREST TREES OF OREGON

The productivity of a particular soil is of considerable importance to land managers. The most common expression of productivity on forestland is site index (total height of trees in the dominant crown canopy at a base age, usually 50 or 100 years). Service employees recognize the significance of site index in relative terms, that is, land with a site index of 160 is more productive than site index 140, but less productive than site index 180. However, most technical materials refer to site index without explaining what it represents in terms of cubic feet or board feet volumes.

The attached tables, express site index in such a way it can be related to volumes. It is necessary, for comparative purposes, to use a method that expresses one value for each site index. The method chosen is culmination of mean annual increment (CMAI).

This age or point may be thought of as the most efficient time to harvest as far as tree growth is concerned. Other factors, such as stumpage values, taxes, interest rates, and management objectives affect the "art" of choosing when to harvest.

In the following tables, the culmination of mean annual increment (CMAI) and the age when it occurs is shown for the corresponding site indices. For example, using a site index of 156 for Douglas-fir, the following volumes can be expressed:

1. A 60 year old stand will produce 165 cubic feet volume per acre per year at CMAI, or 9,900 (60x165) total cubic feet volume.
2. A 100 year old stand will produce 780 board feet (Scribner) volume per acre per year at CMAI or 78,000 (100x780) total board feet volume.

100 YR. TABLE
(PSME)

SITE INDEX	100 YR. TABLE (PSME)		WEST SIDE 50 YR. (PSME) 795-KING		EAST SIDE 50 YR. (PSME) 765-COCHRAN							
	CU.FT./AC./YR.	CU.M./HA./YR.	CU.FT./AC./YR.	CU.M./HA./YR.	CU.FT./AC./YR.	CU.M./HA./YR.						
90	70	4.9	199	160	373	110	116	8.1	90	104	7.3	90
91	72	5.0	206	160	382	110	118	8.2	90	107	7.5	89
92	73	5.1	212	160	391	110	120	8.4	90	109	7.6	88
93	74	5.2	219	160	401	110	122	8.5	90	112	7.8	87
94	75	5.3	225	160	410	110	123	8.6	90	114	8.0	86
95	77	5.4	232	160	420	110	125	8.8	90	117	8.2	84
96	78	5.5	238	160	429	110	128	9.0	90	120	8.4	83
97	79	5.5	244	150	438	110	130	9.1	90	122	8.5	82
98	81	5.7	251	150	448	110	132	9.2	90	125	8.7	81
99	82	5.7	258	150	457	110	134	9.4	90	127	8.9	80
100	84	5.9	265	150	467	100	136	9.5	90	130	9.1	79
101	85	5.9	273	150	478	100	138	9.6	90	133	9.3	78
102	86	6.0	280	150	490	100	140	9.8	90	136	9.5	78
103	88	6.2	288	150	501	100	141	9.9	90	139	9.7	77
104	89	6.2	296	150	512	100	143	10.0	90	142	9.9	76
105	91	6.3	304	150	524	100	145	10.1	90	145	10.1	75
106	92	6.4	312	150	535	100	147	10.3	90	148	10.3	75
107	94	6.6	320	140	547	100	149	10.4	90	151	10.6	74
108	95	6.6	329	140	558	100	150	10.5	90	154	10.8	73
109	97	6.8	337	140	569	100	152	10.6	90	157	11.0	73
110	98	6.9	345	140	581	100	154	10.8	90	160	11.2	72
111	100	7.0	354	140	594	100	156	10.9	90			
112	101	7.1	363	140	606	100	158	11.0	90			
113	103	7.2	372	130	619	100	160	11.2	90			
114	105	7.3	381	130	631	100	162	11.3	90			
115	106	7.4	390	130	644	90	163	11.4	90			
116	108	7.6	399	130	656	90	167	11.7	90			
117	110	7.7	408	130	669	90	169	11.8	90			
118	111	7.8	418	130	681	90	171	11.9	90			
119	113	7.9	427	130	694	90	173	12.1	90			
120	115	8.0	437	120	710	90	175	12.2	90			
121	116	8.1	446	120	723	90	176	12.3	90			
122	118	8.3	456	120	736	90	178	12.5	90			
123	119	8.3	465	120	749	90	180	12.6	90			
124	121	8.5	475	120	762	90	182	12.7	90			
125	122	8.5	485	120	776	90	184	12.9	90			
126	124	8.7	494	120	789	90	186	13.0	90			
127	125	8.7	504	120	802	90	188	13.1	90			
128	127	8.9	513	120	815	90	190	13.2	90			
129	128	9.0	523	120	828	90	191	13.4	90			

CMAI FOR DOUGLAS FIR

100 YR. TABLE
(PSME)
790-McARDLE

WEST SIDE 50 YR.
(PSME)
795-KING

SITE INDEX	CU.FT. / CU.M. /		TOTAL BD. FT. /		INTER. 1/8"		TOTAL		CU.FT. / CU.M. /		TOTAL AGE
	AC./YR.	HA./YR.	AC./YR.	HA./YR.	AC./YR.	HA./YR.	AC./YR.	HA./YR.	AC./YR.	HA./YR.	
130	129	9.0	60	532	110	841	90	193	13.5	90	
131	131	9.2	60	542	110	853	90	195	13.6	90	
132	133	9.3	60	552	110	865	90	197	13.8	90	
133	134	9.4	60	562	110	877	90	199	13.9	90	
134	136	9.5	60	572	110	889	90	201	14.0	90	
135	138	9.7	60	581	110	901	80	203	14.2	90	
136	139	9.7	60	591	110	914	80	207	14.5	90	
137	140	9.8	60	601	110	927	80	209	14.6	90	
138	142	9.9	60	611	110	940	80	210	14.7	90	
139	144	10.1	60	621	110	953	80	212	14.8	90	
140	145	10.1	60	631	110	966	80	214	15.0	90	
141	146	10.2	60	640	110	978	80	216	15.1	90	
142	148	10.3	60	649	110	990	80	218	15.2	90	
143	149	10.4	60	658	110	1002	80	220	15.4	90	
144	150	10.5	60	667	110	1014	80	222	15.5	90	
145	152	10.6	60	676	110	1026	80	224	15.6	90	
146	153	10.7	60	686	100	1037	80	226	15.8	90	
147	154	10.8	60	695	100	1049	80	227	15.9	90	
148	156	10.9	60	705	100	1061	80	229	16.0	90	
149	157	11.0	60	714	100	1073	80	231	16.2	90	
150	158	11.1	60	724	100	1085	80	233	16.3	90	
151	159	11.1	60	733	100	1096	80	235	16.4	90	
152	161	11.3	60	743	100	1106	80	237	16.6	90	
153	162	11.3	60	752	100	1117	80	239	16.7	90	
154	163	11.4	60	762	100	1127	80	241	16.8	90	
155	164	11.5	60	771	100	1138	80	243	17.0	90	
156	165	11.5	60	780	100	1148	80	244	17.1	90	
157	167	11.7	60	790	100	1159	80	246	17.2	90	
158	168	11.8	60	799	100	1169	80	248	17.4	90	
159	169	11.8	60	809	100	1180	80	250	17.5	90	
160	170	11.9	60	818	100	1190	80	252	17.6	90	
161	171	12.0	60	827	100	1200	80				
162	172	12.0	60	835	100	1209	80				
163	173	12.1	60	844	100	1219	80				
164	174	12.2	60	852	100	1228	80				
165	176	12.3	60	861	100	1238	80				
166	177	12.4	60	870	100	1247	80				
167	178	12.5	60	878	100	1257	80				
168	179	12.5	60	887	100	1266	80				
169	180	12.6	60	895	100	1276	80				

CMAT FOR DOUGLAS FIR

100 YR. TABLE
(PSME)
790-MEARDLE

SITE INDEX	CU. FT. / CU. M. /		TOTAL BD. FT. /		SCRIBNER		INTER. 1/8"		TOTAL AGE
	AC. / YR.	HA. / YR.	AC. / YR.	AGE	AC. / YR.	AGE	AC. / YR.	AGE	
170	181	12.7	60	904	100	1285	80	80	
171	182	12.7	60	912	100	1295	80	80	
172	183	12.8	60	921	100	1305	80	80	
173	184	12.9	60	930	100	1315	80	80	
174	185	12.9	60	938	100	1325	80	80	
175	186	13.0	60	946	100	1336	80	80	
176	187	13.1	60	955	100	1346	80	80	
177	188	13.2	60	964	90	1356	80	80	
178	189	13.2	60	973	90	1366	80	80	
179	190	13.3	60	982	90	1376	80	80	
180	191	13.4	60	991	90	1386	80	80	
181	192	13.4	60	1000	90	1395	80	80	
182	193	13.5	60	1009	90	1404	80	80	
183	194	13.6	60	1018	90	1413	80	80	
184	194	13.6	60	1027	90	1422	80	80	
185	195	13.6	60	1036	90	1431	80	80	
186	196	13.7	60	1044	90	1440	80	80	
187	197	13.7	60	1053	90	1449	80	80	
188	198	13.9	60	1062	90	1458	80	80	
189	199	13.9	60	1071	90	1467	80	80	
190	200	14.0	60	1080	90	1476	80	80	
191	201	14.1	60	1088	90	1484	80	80	
192	202	14.1	60	1097	90	1493	80	80	
193	202	14.1	60	1105	90	1501	80	80	
194	203	14.2	60	1114	90	1509	80	80	
195	204	14.3	60	1122	90	1518	80	80	
196	205	14.3	60	1131	90	1526	80	80	
197	206	14.4	60	1139	90	1534	80	80	
198	207	14.5	60	1148	90	1542	80	80	
199	208	14.6	60	1156	90	1551	80	80	
200	208	14.6	60	1164	90	1559	80	80	
201	209	14.6	60	1173	90	1567	80	80	
202	210	14.7	60	1181	90	1575	80	80	
203	211	14.8	60	1189	90	1583	80	80	
204	211	14.8	60	1198	90	1591	80	80	
205	212	14.8	60	1206	90	1599	80	80	
206	213	14.9	60	1214	90	1607	80	80	
207	214	15.0	60	1223	90	1615	80	80	
208	214	15.0	60	1231	90	1623	80	80	
209	215	15.0	60	1239	90	1631	80	80	
210	216	15.1	60	1248	90	1639	80	80	



FOREST PRODUCTIVITY ANALYSIS

EXHIBIT P
FORESTER'S REPORT

for

Brad Ogle and Mark Childs

60 yr. cycle

SUBJECT PARCEL: ASSESSORS MAP NO. 18-04-11
Tax Lots 303 & 304, totalling ±113.76 acres.

I. INTRODUCTION

An evaluation of the site, as described above, from a timber productivity and income producing standpoint is reviewed in this analysis. The analysis will determine if:

- 1) The subject property produces less than 85 cu. ft./ac./yr. of conifer timber volume. This has been determined by Lane County to be the measuring parameter for marginal soils.
- 2) The income generated averages less than \$10,000/year, based on 1978 through 1983 log prices. If this is the case, 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."

The above figures can be calculated by:

1. Using actual cutout data from when any logging was done on the parcel.
2. 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, 3) Lane County Soil Ratings taken from the Office of the State Forester Memorandum (Feb. 8, 1990 General File 7-1-1) and 4) estimates of growth 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.

II. SITE INFORMATION

The subject parcel is 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 and 3). 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.



7.1



The Lane County Soil Ratings for Forestry and Agriculture (see Exhibit 4) show a 100 year site class rating for only two of these soil types, the McDuff clay loam and the Ritner cobbly silty clay loam. A cu.ft./ac./yr. figure is also shown for these two soil types; only a cu.ft./ac./yr. figure is shown for the Dixonville-Philomath-Hazelair complex, it does not have a site class rating. The remaining soil types are very poor conifer growing soils and are not assigned any forestland site class rating, in the Lane County Soil Ratings. The cu.ft./ac./yr. growth, for these soil types, was obtained from the soil ratings shown in the Office of the State Forester Memorandum (see Exhibit 5). All of these soils are incapable of producing 85 cu.ft./ac./yr., the parameter used by Lane County for determining marginal soils.

III. RESULTS OF PRODUCTIVITY AND INCOME CALCULATIONS

CUBIC FEET PER YEAR PER ACRE GROWTH

The parcel was logged over the last ten years, before the current owners purchased the property. They have no records of the amount of timber removed. Therefore, the calculations of growth were taken from the tables cited above and the potential income calculated from these figures. In order to obtain a yearly growth figure, in cu.ft./ac. for the entire parcel, the production potential of the different soil types was first calculated for the acres within each soil type. This will give a weighted figure for each soil type and can then be divided by the total acres for an overall average. These calculations are shown below.

Soil Type	Acres	Cu.Ft./Ac./Yr.	ΣCu.Ft.
43C Dixonville-Philomath-Hazelair complex	6.64	54 Cu.Ft./Ac.	358.56 Cu.Ft.
43E Dixonville-Philomath-Hazelair complex	.44	63 Cu.Ft./Ac.	27.72 Cu.Ft.
81D McDuff clay loam	5.60	158 Cu.Ft./Ac.	884.80 Cu.Ft.
102C Panther silty clay loam	14.68	45 Cu.Ft./Ac.	660.60 Cu.Ft.
107C Philomath silty clay	39.61	45 Cu.Ft./Ac.	1,782.45 Cu.Ft.
108F Philomath cobbly silty clay	30.20	45 Cu.Ft./Ac.	1,359.00 Cu.Ft.
113C, E & G Ritner cobbly silty clay loam	13.38	149 Cu.Ft./Ac.	1,993.62 Cu.Ft.
125C Steiwer loam	3.19	30 Cu.Ft./Ac.	95.7 Cu.Ft.
Totals	113.74		7,162.45 Cu.Ft.

Average Growth Potential — 113.74 Acres ÷ 7,162.45 Cu.Ft. = 62.97 Cu.Ft./Ac./Yr.

AVERAGE GROSS ANNUAL INCOME GENERATED PER YEAR THROUGH A COMPLETE ROTATION

Since no cutout records are available, the Empirical Yield Tables were used to obtain total volume per acre in scribner board feet volume, the measurement needed in order to calculate income potential. These yield tables are calculated using King's 50 year site class index. Since the Lane County Soil Ratings for Forestry and Agriculture are based on McArdle's 100 year site index rating, these ratings must be converted first. Using the 50 year Site Index ratings, for each different soil type, the volume per acre for each soil type can be calculated. Adding all the soil types together will give a total for the entire parcel. A sixty year rotation (growth cycle to final harvest) was used, this time span being a reasonable rotation age on this site class, which is very poor. A 40 to 50 year rotation would be used on a better site class.





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. Since the Empirical Yield Tables are based on Douglas-fir volumes, Douglas-fir log prices were used. This should also give the highest figure because Ponderosa pine has never been worth as much as Douglas-fir and incense cedar has only recently approached Douglas-fir prices.

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:

Site Index Ratings from Tables (see Exhibits 6, 7 and 8)

	100 Year Site Index	50 Year Site Index
McDuff clay loam	112	98
Ritner cobbly silty clay loam	107	95

Dixonville-Philomath-Hazelair complex - no Site Index given due to multiple soil types

- 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
- Ritner cobbly silty clay loam - poorly suited for conifer growth, no Site Index given
- Steiwer loam - poorly suited for conifer growth, no Site Index given

The soil types above which have no Site Index given were assigned a Site Index in order to obtain a growth figure from the Empirical Yield Tables. This was accomplished by comparing the Cu.Ft./Ac./Yr. figures shown in the Lane County Soil Ratings for Forestry and Agriculture or the Lane County Soil Ratings taken from the Office of the State Forester Memorandum (see calculations shown in previous section) with the Cu.Ft./Ac./Yr. figures shown in the CMAI (Culmination of Mean Annual Increment) FOR DOUGLAS-FIR Tables. From these comparisons it can be seen that the Cu.Ft./Ac./Yr. figures, for the five soil types not assigned a Site Index, do not even equal the figures shown for the lowest site class shown on the tables. Therefore, for the purposes of this analysis, the volume figures from the lowest site class shown on the tables, Site Class 70, will be used for these five soil types. This will actually show a higher volume projection than could be expected on the site, but will serve the purpose needed for this analysis. These calculations are shown below.

McDuff clay loam - 5.6 acres @ 27,953 bd.ft./ac.* =	156,537 bd.ft.
Ritner cobbly silty clay loam - 13.38 acres @ 26,012 bd.ft./ac.* =	348,041 bd.ft.
Remaining soil types - 94.76 acres @ 12,572 bd.ft./ac.* =	<u>1,191,323 bd.ft.</u>
Total	1,695,901 bd.ft.

*See Exhibit 9.





A 60 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 - 1,695.90 MBF (thousand board feet)

678.36 MBF of 2 SAW @ <u>\$255/MBF**</u>	\$172,982
847.95 MBF of 3 SAW @ <u>\$215/MBF**</u>	182,309
169.59 MBF of 4 SAW @ <u>\$200/MBF**</u>	<u>33,918</u>

Total Projected Gross Revenue \$389,209

**See Exhibit 10.

AVERAGE GROSS INCOME -- $\$389,209 \div 60 \text{ YEARS} = \underline{\$6,487/\text{YEAR}}$

IV. 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 subject property produces less than 85 cu. ft./ac./yr. of conifer timber volume; only 62.97 cubic feet. The above mentioned figure has been determined by Lane County to be measuring parameter for marginal soils.
- 2) The estimated gross income based on a 60 year rotation for the 113.74 acre site would have been \$389,209 in 1983. The average annual gross income would have been \$6,487/year. Because \$6,487 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."

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 timber and use as land for forestry purposes. It is my opinion that this parcel should be classified as marginal land.

Sincerely,

Marc E Setlako





Marc E. Setchko
CONSULTING FORESTER

*rec'd on 1-27-07
from Brad Ogle
-per M.E. Ogle - revised
to reflect 50 yr cycle.*

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

FOREST PRODUCTIVITY ANALYSIS

EXHIBIT 5
50-yr cycle

for

Brad Ogle and Mark Childs

SUBJECT PARCEL: ASSESSORS MAP NO. 18-04-11
Tax Lots 303 & 304, totalling ±113.76 acres.

I. INTRODUCTION

An evaluation of the site, as described above, from a timber productivity and income producing standpoint is reviewed in this analysis. The analysis will determine if:

- 1) The subject property produces less than 85 cu. ft./ac./yr. of conifer timber volume. This has been determined by Lane County to be the measuring parameter for marginal soils.
- 2) The income generated averages less than \$10,000/year, based on 1978 through 1983 log prices. If this is the case, 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."

The above figures can be calculated by:

1. Using actual cutout data from when any logging was done on the parcel.
2. 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, 3) Lane County Soil Ratings taken from the Office of the State Forester Memorandum (Feb. 8, 1990 General File 7-1-1) and 4) estimates of growth 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.

II. SITE INFORMATION

The subject parcel is 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 and 3). 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.

5.1





The Lane County Soil Ratings for Forestry and Agriculture (see Exhibit 4) show a 100 year site class rating for only two of these soil types, the McDuff clay loam and the Ritner cobbly silty clay loam. A cu.ft./ac./yr. figure is also shown for these two soil types; only a cu.ft./ac./yr. figure is shown for the Dixonville-Philomath-Hazelair complex, it does not have a site class rating. The remaining soil types are very poor conifer growing soils and are not assigned any forestland site class rating, in the Lane County Soil Ratings. The cu.ft./ac./yr. growth, for these soil types, was obtained from the soil ratings shown in the Office of the State Forester Memorandum (see Exhibit 5). All of these soils are incapable of producing 85 cu.ft./ac./yr., the parameter used by Lane County for determining marginal soils.

III. RESULTS OF PRODUCTIVITY AND INCOME CALCULATIONS

CUBIC FEET PER YEAR PER ACRE GROWTH

The parcel was logged over the last ten years, before the current owners purchased the property. They have no records of the amount of timber removed. Therefore, the calculations of growth were taken from the tables cited above and the potential income calculated from these figures. In order to obtain a yearly growth figure, in cu.ft./ac. for the entire parcel, the production potential of the different soil types was first calculated for the acres within each soil type. This will give a weighted figure for each soil type and can then be divided by the total acres for an overall average. These calculations are shown below.

Soil Type	Acres	Cu.Ft./Ac./Yr.	ΣCu.Ft.
43C Dixonville-Philomath-Hazelair complex	6.64	54 Cu.Ft./Ac.	358.56 Cu.Ft.
43E Dixonville-Philomath-Hazelair complex	.44	63 Cu.Ft./Ac.	27.72 Cu.Ft.
81D McDuff clay loam	5.60	158 Cu.Ft./Ac.	884.80 Cu.Ft.
102C Panther silty clay loam	14.68	45 Cu.Ft./Ac.	660.60 Cu.Ft.
107C Philomath silty clay	39.61	45 Cu.Ft./Ac.	1,782.45 Cu.Ft.
108F Philomath cobbly silty clay	30.20	45 Cu.Ft./Ac.	1,359.00 Cu.Ft.
113C, E & G Ritner cobbly silty clay loam	13.38	149 Cu.Ft./Ac.	1,993.62 Cu.Ft.
125C Steiwer loam	<u>3.19</u>	30 Cu.Ft./Ac.	<u>95.7 Cu.Ft.</u>
Totals	113.74		7,162.45 Cu.Ft.

Average Growth Potential -- 113.74 Acres ÷ 7,162.45 Cu.Ft. = 62.97 Cu.Ft./Ac./Yr.

AVERAGE GROSS ANNUAL INCOME GENERATED PER YEAR THROUGH A COMPLETE ROTATION

Since no cutout records are available, the Empirical Yield Tables were used to obtain total volume per acre in scribner board feet volume, the measurement needed in order to calculate income potential. These yield tables are calculated using King's 50 year site class index. Since the Lane County Soil Ratings for Forestry and Agriculture are based on McArdle's 100 year site index rating, these ratings must be converted first. Using the 50 year Site Index ratings, for each different soil type, the volume per acre for each soil type can be calculated. 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.



Marc E. Setchko
CONSULTING FORESTER

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

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. Since the Empirical Yield Tables are based on Douglas-fir volumes, Douglas-fir log prices were used. This should also give the highest figure because Ponderosa pine has never been worth as much as Douglas-fir and incense cedar has only recently approached Douglas-fir prices.

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:

Site Index Ratings from Tables (see Exhibits 6, 7 and 8)

	100 Year Site Index	50 Year Site Index	
McDuff clay loam	112	98	112
Ritner cobbly silty clay loam	107	95	107

Dixonville-Philomath-Hazelair complex - no Site Index given due to multiple soil types

- 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
- Ritner cobbly silty clay loam - poorly suited for conifer growth, no Site Index given
- Steiwer loam - poorly suited for conifer growth, no Site Index given

The soil types above which have no Site Index given were assigned a Site Index in order to obtain a growth figure from the Empirical Yield Tables. This was accomplished by comparing the Cu.Ft./Ac./Yr. figures shown in the Lane County Soil Ratings for Forestry and Agriculture or the Lane County Soil Ratings taken from the Office of the State Forester Memorandum (see calculations shown in previous section) with the Cu.Ft./Ac./Yr. figures shown in the CMAI (Culmination of Mean Annual Increment) FOR DOUGLAS-FIR Tables. From these comparisons it can be seen that the Cu.Ft./Ac./Yr. figures, for the five soil types not assigned a Site Index, do not even equal the figures shown for the lowest site class shown on the tables. Therefore, for the purposes of this analysis, the volume figures from the lowest site class shown on the tables, Site Class 70, will be used for these five soil types. This will actually show a higher volume projection than could be expected on the site, but will serve the purpose needed for this analysis. These calculations are shown below.

McDuff clay loam - 5.6 acres @ 19,019 bd.ft./ac.* =	106,506 bd.ft.
Ritner cobbly silty clay loam - 13.38 acres @ 17,591 bd.ft./ac.* =	235,368 bd.ft.
Remaining soil types - 94.76 acres @ 8,115 bd.ft./ac.* =	<u>768,977 bd.ft.</u>
Total	1,110,851 bd.ft.

*See Exhibit 9.



Marc E. Setchko
CONSULTING FORESTER

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

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 - 1,110.85 MBF (thousand board feet)

444.34 MBF of 2 SAW @ <u>\$255/MBF**</u>	\$113,307
555.43 MBF of 3 SAW @ <u>\$215/MBF**</u>	119,417
111.08 MBF of 4 SAW @ <u>\$200/MBF**</u>	<u>22,216</u>
Total Projected Gross Revenue	\$254,940

**See Exhibit 10.

AVERAGE GROSS INCOME -- $\$254,940 \div 50 \text{ YEARS} = \underline{\$5,099/\text{YEAR}}$

IV. 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 subject property produces less than 85 cu. ft./ac./yr. of conifer timber volume; only 62.97 cubic feet. The above mentioned figure has been determined by Lane County to be measuring parameter for marginal soils.
- 2) The estimated gross income based on a 50 year rotation for the 113.74 acre site would have been \$254,940 in 1983. The average annual gross income would have been \$5,099/year. Because \$5,099 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."

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 timber and use as land for forestry purposes. It is my opinion that this parcel should be classified as marginal land.

Sincerely,

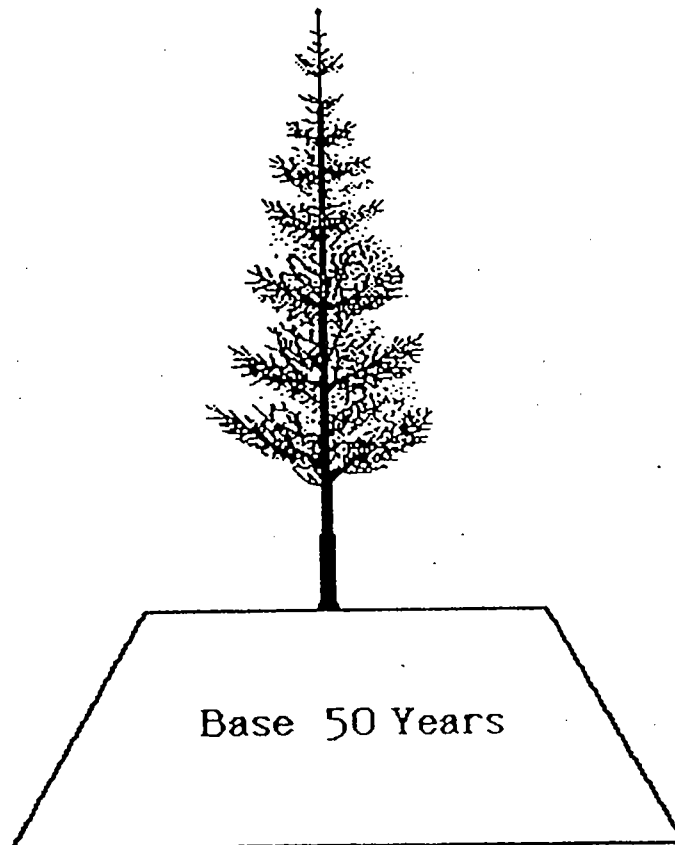
Marc E. Setchko

EXHIBIT 6

THE YIELD TABLE

OF

DOUGLAS FIR



Site Index 105		Douglas Fir Reflects DNR Ownership			Base 50 Site Index 105					
Total Age	BH Age	PNB	Site Height <i>feet</i>	Ave. DBH <i>inches</i>	Per Acre Data					
					Basal Area <i>sq ft</i>	Trees /Acre <i>7" +</i>	Gross Cu. Ft. <i>7" +</i>	Net 4" Cu. Ft. <i>7" +</i>	Scrib 6" Board Feet <i>16' 100</i>	Scrib 6" Board Feet <i>32' 100</i>
30	22	1.00	56	10.0	102.9	187	2352	1931	6,035	4,148
32	24	1.00	61	10.3	114.3	197	2769	2352	7,631	5,360
34	26	1.00	65	10.6	124.8	204	3182	2769	9,337	6,686
36	28	1.00	69	10.9	134.5	209	3590	3182	11,139	8,113
38	30	1.00	73	11.1	143.5	212	3994	3590	13,023	9,631
40	32	1.00	77	11.4	152.0	214	4395	3994	14,979	11,228
42	34	1.00	80	11.7	159.9	215	4791	4395	16,996	12,896
44	36	1.00	84	12.0	167.4	215	5183	4791	19,066	14,624
46	38	1.00	87	12.2	174.5	214	5570	5183	21,180	16,406
48	40	1.00	91	12.5	181.2	213	5954	5570	23,331	18,233
50	42	1.00	94	12.7	187.6	212	6333	5954	25,513	20,099
52	44	1.00	97	13.0	193.7	210	6708	6333	27,719	21,997
54	46	1.00	100	13.3	199.5	208	7080	6708	29,945	23,922
56	48	1.00	102	13.5	205.1	206	7447	7080	32,185	25,869
58	50	1.00	105	13.8	210.4	203	7809	7447	34,435	27,832
60	52	1.00	108	14.0	215.5	201	8168	7809	36,691	29,808
62	54	1.00	110	14.3	220.5	198	8523	8168	38,949	31,792
64	56	1.00	112	14.5	225.2	196	8873	8523	41,207	33,781
66	58	1.00	115	14.8	229.8	193	9219	8873	43,460	35,771
68	60	1.00	117	15.0	234.3	191	9561	9219	45,706	37,759
70	62	1.00	119	15.2	238.6	188	9899	9561	47,943	39,742
72	64	1.00	121	15.5	242.7	186	10233	9899	50,168	41,717
74	66	1.00	123	15.7	246.7	184	10563	10233	52,379	43,683
76	68	1.00	125	15.9	250.6	181	10888	10563	54,574	45,636
78	70	1.00	127	16.1	254.4	179	11209	10888	56,752	47,574
80	72	1.00	129	16.4	258.1	177	11526	11209	58,910	49,497
82	74	1.00	131	16.6	261.7	175	11840	11526	61,047	51,401
84	76	1.00	132	16.8	265.2	173	12148	11840	63,163	53,286
86	78	1.00	134	17.0	268.6	171	12453	12148	65,255	55,149
88	80	1.00	136	17.2	271.9	169	12754	12453	67,322	56,989
90	82	1.00	137	17.4	275.2	167	13050	12754	69,364	58,805
92	84	1.00	139	17.6	278.3	165	13342	13050	71,379	60,596
94	86	1.00	140	17.8	281.4	163	13631	13342	73,367	62,361
96	88	1.00	142	18.0	284.4	162	13914	13631	75,327	64,097
98	90	1.00	143	18.1	287.3	160	14194	13914	77,257	65,805
100	92	1.00	144	18.3	290.2	159	14470	14194	79,158	67,484

Douglas fir Site Index 105
DNR #41 Base 50

Douglas fir
Base 50

Site Index 110		Douglas Fir Reflects DNR Ownership			Base 50 Site Index 110					
Total Age	BH Age	PNB	Site Height <i>feet</i>	Ave. DBH <i>inches</i>	Per Acre Data					
					Basal Area <i>sq ft</i>	Trees /Acre <i>7"+</i>	Gross Cu. Ft. <i>7"+</i>	Net 4" Cu. Ft. <i>7"+</i>	Scrib 6" Board Feet <i>16' log</i>	Scrib 6" Board Feet <i>32' log</i>
30	22	1.00	59	10.2	108.9	191	2574	2133	6,854	4,745
32	24	1.00	63	10.5	120.3	199	3011	2574	8,613	6,097
34	26	1.00	68	10.8	130.8	205	3444	3011	10,488	7,572
36	28	1.00	72	11.1	140.5	209	3873	3444	12,463	9,154
38	30	1.00	76	11.4	149.5	211	4297	3873	14,525	10,832
40	32	1.00	80	11.7	158.0	212	4718	4297	16,660	12,593
42	34	1.00	84	12.0	165.9	212	5134	4718	18,859	14,428
44	36	1.00	88	12.3	173.4	211	5546	5134	21,112	16,326
46	38	1.00	91	12.5	180.5	210	5954	5546	23,410	18,280
48	40	1.00	95	12.8	187.2	209	6358	5954	25,746	20,280
50	42	1.00	98	13.1	193.6	207	6757	6358	28,113	22,321
52	44	1.00	101	13.4	199.7	204	7153	6757	30,504	24,394
54	46	1.00	104	13.7	205.5	202	7544	7153	32,914	26,495
56	48	1.00	107	13.9	211.1	199	7931	7544	35,339	28,617
58	50	1.00	110	14.2	216.4	197	8314	7931	37,772	30,756
60	52	1.00	113	14.5	221.5	194	8693	8314	40,211	32,907
62	54	1.00	115	14.7	226.5	191	9068	8693	42,652	35,066
64	56	1.00	118	15.0	231.2	189	9438	9068	45,090	37,228
66	58	1.00	120	15.3	235.8	186	9805	9438	47,523	39,392
68	60	1.00	123	15.5	240.3	183	10167	9805	49,948	41,552
70	62	1.00	125	15.8	244.6	180	10525	10167	52,363	43,706
72	64	1.00	127	16.0	248.7	178	10879	10525	54,764	45,852
74	66	1.00	129	16.3	252.7	175	11229	10879	57,150	47,987
76	68	1.00	131	16.5	256.6	173	11575	11229	59,519	50,109
78	70	1.00	133	16.7	260.4	170	11916	11575	61,869	52,215
80	72	1.00	135	17.0	264.1	168	12253	11916	64,199	54,304
82	74	1.00	137	17.2	267.7	166	12587	12253	66,507	56,373
84	76	1.00	139	17.4	271.2	164	12916	12587	68,791	58,422
86	78	1.00	141	17.7	274.6	162	13241	12916	71,051	60,448
88	80	1.00	142	17.9	277.9	160	13561	13241	73,286	62,451
90	82	1.00	144	18.1	281.1	158	13878	13561	75,494	64,429
92	84	1.00	146	18.3	284.3	156	14190	13878	77,674	66,381
94	86	1.00	147	18.5	287.4	154	14499	14190	79,827	68,305
96	88	1.00	149	18.7	290.4	152	14803	14499	81,950	70,202
98	90	1.00	150	18.9	293.3	151	15103	14803	84,045	72,069
100	92	1.00	152	19.1	296.2	149	15399	15103	86,109	73,906

Douglas fir Site Index 110
DNR #41 Base 50

Douglas fir
Base 50

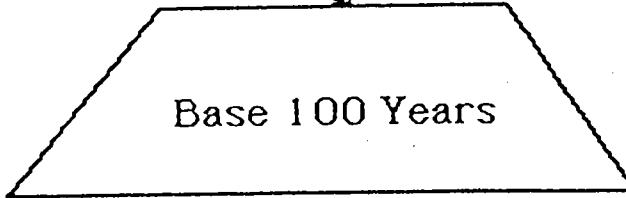
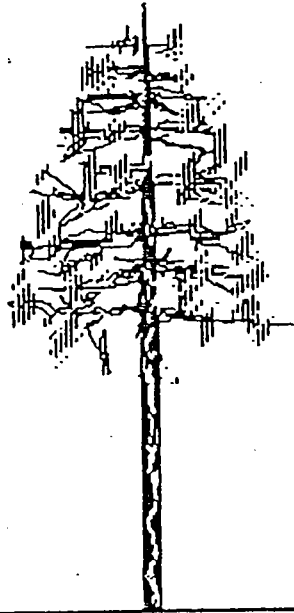
63

EXHIBIT 7

THE YIELD TABLE

OF

PONDEROSA PINE



Ponderosa Pine					Base 100				
Site Index 105					Site Index 105				
Total Age	BH Age	Norm.	Site Height <i>feet</i>	Ave. DBH <i>inches</i>	Per Acre Data				
					Basal Area <i>sq ft</i>	Trees /Acre	Gross Cu.Ft.	Net 4" Cu.Ft.	Scrib 6" Bd Ft
20	10	1.00	31	4.2	111	1,170	1455	486	
25	15	1.00	39	5.3	144	944	2242	1235	
30	20	1.00	47	6.1	169	820	2983	1976	
35	25	1.00	52	6.9	188	728	3670	2683	2,979
40	30	1.00	57	7.6	204	651	4304	3349	6,116
45	35	1.00	63	8.2	215	583	4891	3971	9,301
50	40	1.00	67	8.9	225	523	5434	4553	12,488
55	45	1.00	72	9.5	231	469	5938	5095	15,647
60	50	1.00	76	10.1	236	422	6406	5601	18,760
65	55	1.00	80	10.8	240	380	6841	6073	21,814
70	60	1.00	84	11.4	243	344	7246	6513	24,802
75	65	1.00	88	12.0	244	311	7624	6924	27,718
80	70	1.00	92	12.6	245	283	7978	7307	30,559
85	75	1.00	95	13.2	245	258	8308	7665	33,322
90	80	1.00	98	13.8	245	235	8618	7998	36,008
95	85	1.00	102	14.4	245	216	8907	8310	38,616
100	90	1.00	105	15.0	244	199	9179	8601	41,146
105	95	1.00	108	15.6	243	183	9434	8873	43,600
110	100	1.00	111	16.2	242	170	9674	9126	45,977
115	105	1.00	114	16.7	241	157	9899	9362	48,281
120	110	1.00	116	17.3	240	147	10111	9583	50,513
125	115	1.00	119	17.9	238	137	10310	9789	52,674
130	120	1.00	122	18.4	237	128	10498	9980	54,768
135	125	1.00	124	19.0	236	121	10675	10159	56,795
140	130	1.00	127	19.5	236	114	10843	10326	58,758
145	135	1.00	129	20.0	235	107	11000	10482	60,660
150	140	1.00	131	20.5	234	102	11150	10627	62,503
155	145	1.00	133	21.0	234	97	11291	10763	64,290
160	150	1.00	136	21.5	233	92	11426	10890	66,023

Ponderosa Pine
CZ FMSS 1974

Site Index 105

Ponderosa Pine
Base 100

Ponderosa Pine

Base 100

Site Index 110					Site Index 110				
Total Age	BH Age	Norm.	Site Height feet	Ave. DBH inches	Per Acre Data				
					Basal Area sq ft	Trees /Acre	Gross Cu.Ft.	Net 4" Cu.Ft.	Scrib 6" Bd Ft
20	10	1.00	33	4.6	116	1,026	1668	657	
25	15	1.00	41	5.7	149	847	2519	1476	
30	20	1.00	49	6.6	175	744	3316	2277	1,291
35	25	1.00	54	7.3	194	665	4053	3037	4,669
40	30	1.00	60	8.0	210	597	4734	3750	8,147
45	35	1.00	66	8.7	222	537	5362	4416	11,651
50	40	1.00	71	9.4	231	484	5944	5037	15,138
55	45	1.00	75	10.0	238	436	6483	5616	18,582
60	50	1.00	80	10.7	243	393	6984	6155	21,966
65	55	1.00	84	11.3	247	355	7451	6658	25,279
70	60	1.00	88	11.9	250	321	7886	7127	28,515
75	65	1.00	92	12.6	251	292	8292	7565	31,670
80	70	1.00	96	13.2	252	266	8671	7973	34,740
85	75	1.00	100	13.8	253	242	9026	8355	37,726
90	80	1.00	103	14.4	252	222	9359	8711	40,626
95	85	1.00	107	15.1	252	204	9671	9044	43,441
100	90	1.00	110	15.7	251	188	9964	9355	46,173
105	95	1.00	113	16.3	250	173	10240	9645	48,823
110	100	1.00	116	16.9	249	161	10499	9917	51,391
115	105	1.00	119	17.5	248	149	10742	10170	53,880
120	110	1.00	122	18.0	247	139	10971	10406	56,293
125	115	1.00	125	18.6	246	130	11188	10627	58,631
130	120	1.00	127	19.2	245	122	11391	10834	60,896
135	125	1.00	130	19.8	244	115	11584	11026	63,092
140	130	1.00	133	20.3	243	108	11765	11206	65,220
145	135	1.00	135	20.9	242	102	11937	11374	67,283
150	140	1.00	137	21.4	242	97	12100	11532	69,283
155	145	1.00	140	21.9	241	92	12254	11679	71,224
160	150	1.00	142	22.4	241	88	12401	11816	73,108

Ponderosa Pine
CZ FMSS 1974

Site Index 110

Ponderosa Pine
Base 100

7.3

Ponderosa Pine

Base 100

Site Index 120					Site Index 120				
Total Age	BH Age	Norm.	Site Height feet	Ave. DBH inches	Per Acre Data				
					Basal Area sq ft	Trees /Acre	Gross Cu.Ft.	Net 4" Cu.Ft.	Scrib 6" Bd Ft
20	10	1.00	36	5.3	126	813	2126	1032	
25	15	1.00	45	6.5	160	695	3110	1992	341
30	20	1.00	53	7.4	186	622	4024	2917	4,316
35	25	1.00	59	8.2	206	563	4865	3786	8,456
40	30	1.00	66	8.9	222	510	5640	4597	12,639
45	35	1.00	72	9.6	235	462	6356	5352	16,803
50	40	1.00	77	10.3	244	419	7018	6054	20,912
55	45	1.00	82	11.0	252	379	7632	6707	24,945
60	50	1.00	87	11.7	257	344	8202	7316	28,889
65	55	1.00	92	12.4	261	312	8734	7883	32,737
70	60	1.00	97	13.1	264	284	9230	8412	36,486
75	65	1.00	101	13.7	266	259	9694	8906	40,134
80	70	1.00	105	14.4	267	236	10128	9367	43,680
85	75	1.00	109	15.1	267	216	10535	9798	47,124
90	80	1.00	113	15.7	267	199	10917	10201	50,468
95	85	1.00	116	16.4	267	183	11276	10578	53,714
100	90	1.00	120	17.0	266	169	11614	10931	56,862
105	95	1.00	123	17.6	265	156	11931	11260	59,917
110	100	1.00	127	18.3	264	145	12230	11569	62,880
115	105	1.00	130	18.9	263	135	12512	11858	65,753
120	110	1.00	133	19.5	262	126	12779	12128	68,540
125	115	1.00	136	20.1	261	118	13030	12381	71,243
130	120	1.00	139	20.8	260	111	13267	12617	73,864
135	125	1.00	142	21.4	259	104	13492	12839	76,408
140	130	1.00	145	21.9	258	98	13704	13047	78,877
145	135	1.00	147	22.5	257	93	13905	13241	81,273
150	140	1.00	150	23.1	257	88	14096	13423	83,600
155	145	1.00	153	23.7	256	84	14277	13594	85,860
160	150	1.00	155	24.2	256	80	14449	13755	88,058

Ponderosa Pine
CZ FMSS 1974

Site Index 120

Ponderosa Pine
Base 100

7.4

EXHIBIT 8

DOUGLAS FIR LOG PRICES 1978-1982, 1983

REGION 1 - WESTERN OREGON UNIT

Reporting format: ODF reporting as of 4th quarter 1981

Source: Oregon Department of Forestry Forest Management Division
http://www.odf.state.or.us/divisions/management/asset_management/logprices/logP483.HTM

Domestically Processed Logs (Delivered to a mill; "Pond Value")

1978

Douglas-Fir Grade	Quarter				Average
	1st	2nd	3rd	4th	
#1P	\$ 460	475	475	475	471
#2P	\$ 415	435	435	435	430
#3P	\$ 358	389	389	389	381
SM	\$ 283	338	338	338	324
#2S	\$ 242	287	287	287	276
#3S	\$ 191	250	250	250	235
#4S	\$ 161	200	200	200	190
SC	\$ 125	157	157	157	149
Utility	\$ 70	80	80	80	78

1979

Douglas-Fir Grade	Quarter				Average
	1st	2nd	3rd	4th	
#1P	\$ 531	531	584	584	555
#2P	\$ 476	476	523	523	500
#3P	\$ 425	425	467	467	446
SM	\$ 385	385	423	423	404
#2S	\$ 322	322	354	354	338
#3S	\$ 282	282	310	310	296
#4S	\$ 256	256	281	281	269
SC	\$ 160	160	176	176	168
Utility	\$ 90	90	99	99	95

1980

Douglas-Fir Grade	Quarter				Average
	1st	2nd	3rd	4th	
#1P	\$ 584	584	584	584	584
#2P	\$ 523	523	523	523	523
#3P	\$ 467	467	467	467	467
SM	\$ 423	423	423	423	423
#2S	\$ 354	354	354	354	354
#3S	\$ 310	310	310	310	310
#4S	\$ 281	281	281	281	281
SC	\$ 176	176	176	176	176
Utility	\$ 99	99	99	99	99

1981

Douglas-Fir Grade	Quarter				Average
	1st	2nd	3rd	4th	
#1P	\$ 584	584	584	648	648
#2P	\$ 523	523	523	550	550
#3P	\$ 467	467	467	439	439
SM	\$ 423	423	423	390	415
#2S	\$ 354	354	354	323	346
#3S	\$ 310	310	310	238	292
#4S	\$ 281	281	281	208	263
SC	\$ 176	176	176	212	185
Utility	\$ 99	99	99	104	100

1982

Douglas-Fir Grade	Quarter				Average
	1st	2nd	3rd	4th	
1P	\$ 600	512	512	512	534
2P	\$ 510	439	439	439	457
3P	\$ 425	370	370	370	384
SM	\$ 375	316	316	316	331
2S	\$ 295	258	258	258	267
3S	\$ 225	202	202	202	208
4S	\$ 190	169	169	169	174
SC	\$ 190	164	164	164	171
Utility	\$ 90	123	123	123	115
CR (2S & better)	\$ --	303	303	303	303
CR (2S, 3S, and 4S)	\$ --	243	243	243	243

1983

Douglas-Fir Grade	Quarter				Average
	1st	2nd	3rd	4th	
1P	\$ 512	505	505	505	507
2P	\$ 439	410	425	425	425
3P	\$ 370	325	340	340	343
SM	\$ 316	275	285	285	290
2S	\$ 258	250	255	255	255
3S	\$ 202	210	215	215	211
4S	\$ 169	195	200	200	191
SC	\$ 164	130	140	140	144
Utility	\$ 123	75	75	75	87
CR (2S & better)	\$ 303	--	--	--	303
CR (2S, 3S, and 4S)	\$ 243	240	240	240	241

DF Grade	1978-1982 Average	1983 Average	%+	% -
1P	\$ 558	507		- 9.1%
2P	\$ 492	425		-13.6%
3P	\$ 423	343		-18.9%
SM	\$ 379	290		-23.5%
2S	\$ 316	255		-19.3%
3S	\$ 268	211		-21.3%
4S	\$ 235	191		-18.7%
SC	\$ 170	144		-15.3%
Utility	\$ 97	87		-10.3%
CR (2S & better)	\$ 303	303		n/c
CR (2S, 3S, and 4S)	\$ 243	241		- 0.8%
Average*	\$ 326	273	19.4**	-16.3

*In the absence of information concerning distribution of grades, it is not possible to assign the different grades their proper weight in calculating an overall average. This calculation assigns each grade equal weight, with the exception of the CR grades which were used only during the years 1982 and 1983 years and are not included.

** % by which 1978-82 prices exceed 1983 prices

EXHIBIT 9

PONDEROSA PINE LOG PRICES 1978-1982, 1983

Reporting format: ODF reporting as of 4th quarter 1981

Source: Oregon Department of Forestry Forest Management Division
http://www.odf.state.or.us/divisions/management/asset_management/logprices/logP483.HTM

Domestically Processed Logs (Delivered to a mill; "Pond Value")

Roseburg prices used where available; otherwise, Grants Pass prices

1978 (Grants Pass)

Grade	Quarter				Average
	1st	2nd	3rd	4th	
#1S	\$ 300	347	347	347	335
SM	-	221	221	221	221
#2S	\$ 225	305	305	305	285
#3S	\$ 180	263	263	263	242
#4S	\$ 152	187	187	187	178
#5S	\$ 140	173	173	173	165
#6S	\$ 110	147	147	147	138
Utility	-	-	-	-	-

1979 (Roseburg)

Grade	Quarter				Average
	1st	2nd	3rd	4th	
1S	\$ 479	479	527	527	503
SM	\$ 274	274	301	301	288
2S	\$ 353	353	388	388	371
3S	\$ 315	315	347	347	331
4S	\$ 244	244	269	269	257
5S	\$ 222	222	244	244	233
6S	\$ 217	217	238	238	228
Utility	\$ 130	130	130	130	130

1980 (Roseburg)

Grade	Quarter				Average
	1st	2nd	3rd	4th	
1S	\$ 527	521	521	521	521
SM	\$ 301	301	301	301	301
2S	\$ 388	388	388	388	388
3S	\$ 347	347	347	347	347
4S	\$ 269	269	269	269	269
5S	\$ 244	244	244	244	244
6S	\$ 238	238	238	238	238
Utility	\$ 130	130	130	130	130

1981 (Roseburg)

Grade	Quarter				Average
	1st	2nd	3rd	4th	
Peeler	-	-	-	610	610
1S	\$ 527	521	521	500	516
SM	\$ 301	301	301	275	295
2S	\$ 388	388	388	430	399
3S	\$ 347	347	347	300	335
4S	\$ 269	269	269	275	271
5S	\$ 244	244	244	250	246
6S	\$ 238	238	238	210	231
CR	-	-	-	315	315
Utility	\$ 130	130	130	115	126

1982 (Roseburg)

Grade	Quarter				Average
	1st	2nd	3rd	4th	
Peeler	\$ 575	575	575	575	575
1S	\$ 495	495	495	495	495
SM	\$ 300	300	300	300	300
2S	\$ 390	390	390	390	390
3S	\$ 300	300	300	300	300
4S	\$ 250	250	250	250	250
5S	\$ 175	175	175	174	175
6S	\$ 150	150	150	150	150
CR	\$ 250	250	250	250	250
Utility	\$ 100	100	100	100	100

1983 Roseburg (1st quarter); Grants Pass (2nd-4th quarters)

Grade	Quarter				Average
	1st	2nd	3rd	4th	
Peeler	\$ 575	-	-	-	575
1S	\$ 495	-	-	-	495
SM	\$ 300	300	300	300	300
2S	\$ 390	450	450	450	435
3S	\$ 300	375	375	375	356
4S	\$ 250	225	225	225	231
5S	\$ 175	200	200	200	194
6S	\$ 150	160	160	160	158
CR	\$ 250	240	240	240	243
Utility	\$ 100	55	-	-	78

PP Grade	1978-1982 Average	1983 Average	%+	%+/-
Peeler	\$ 593	575		- 3.0%
1S	\$ 474	495		+ 4.4%
SM	\$ 281	300		+ 6.7%
2S	\$ 366	435		+18.9%
3S	\$ 311	356		+14.5%
4S	\$ 245	231		- 5.7%
5S	\$ 213	194		- 8.9%
6S	\$ 197	158		-19.8%
CR	\$ 283	243		-14.1%
Utility	\$ 122	78		-36.1%
Average*	\$ 309	307	0.065**	-.0065%

*In the absence of information concerning distribution of grades, it is not possible to assign the different grades their proper weight in calculating an overall average. This calculation assigns each grade equal weight, with the exception of the CR grades which were used only during the years 1982 and 1983 years and are not included.

** % by which 1978-82 prices exceed 1983 prices

EXHIBIT 10

temperature is 60 degrees at Canary and 64 degrees at Detroit and Eugene. The average daily maximum temperature is about 76. The highest recorded temperature, which occurred at Detroit on June 17, 1961, is 107 degrees.

Growing degree days, shown in table 1, are equivalent to "heat units." During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (40 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is 81 inches at Canary and Detroit and 46 inches at Eugene. Of this, about 20 percent usually falls in April through September, which includes the growing season for most crops. The heaviest 1-day rainfall during the period of record was 5.37 inches at Detroit on January 28, 1965. Thunderstorms occur on about 5 days each year, and most occur in summer.

The average seasonal snowfall is 4 inches at Canary, 77 inches at Detroit, and 9 inches at Eugene. The greatest snow depth at any one time during the period of record was 22 inches at Canary, 61 inches at Detroit, and 34 inches at Eugene. On an average, Canary has 1 day, Detroit has 23 days, and Eugene has 2 days with at least 1 inch of snow on the ground, but the number of such days varies greatly from year to year.

The average relative humidity in midafternoon is about 60 percent. Humidity is higher at night, and the average at dawn is about 90 percent. The percentage of possible sunshine is 60 percent in summer and 25 percent in winter. The prevailing wind is from the west-northwest. Average windspeed is highest, 8 miles per hour, in winter.

In most winters, one or two storms over the whole area bring strong and sometimes damaging winds, and in some years the accompanying heavy rains cause serious flooding. Every few years, in winter or summer, a large invasion of a continental airmass from the east causes abnormal temperatures. In winter several consecutive days are well below freezing; in summer a week or longer is sweltering.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. 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 profile extends from the surface

down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biologic activity.

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, of 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.

This survey area includes Beaches, Dune land, Pits, Riverwash, and Rock outcrop, which have little or no natural soil. For consistency and clarity, these miscellaneous areas have been described in a manner similar to that of map units that include soils. The areas may be part of a complex, such as the Rock outcrop-Kichis complex, 30 to 90 percent slopes. Use of these miscellaneous areas for agriculture, as urban land, or as woodland is very limited. Some of the more feasible modifications or uses of these areas have been mentioned. Dune land is unstable drifting sand, but beachgrass has been planted in some areas near roads and buildings to reduce drifting. If other conditions are favorable, areas so stabilized become suitable building sites in a few years.

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. Similar soils that have essentially the same use and management can occupy as much as 45 percent of a delineation as long as no more than 20 percent is one kind of soil. The publication scale of 3.168 inches per mile further restricts the minimum size of any delineation; therefore, even in intensively used and carefully mapped areas, roughly circular included areas as much as 2 acres in size and long, narrow included areas as much as 4 acres in size are present in some delineations because they are smaller than the minimum size recommended at the publication scale.

The total percentage given for included areas refers only to contrasting inclusions that have significant differences in use or management.

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. They noted color, texture, size, and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, 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.

While the soil survey was in progress, samples of some of the soils in the area were collected for laboratory analyses and for engineering tests. Soil scientists interpreted the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils were field tested through observation of the soils in different uses and under different levels of management. Some interpretations were modified to fit local conditions, and some new interpretations were developed to meet local needs. Data were assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management were assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can state with a fairly high degree of probability that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

EXHIBIT 11

LANE COUNTY AREA, OREGON

USDA-BCS
6-87

SOIL INTERPRETATION RECORD

33C BIRNVILLE-PRILMATH-MAIRLAIN COMPLEX, 3 TO 13 PERCENT SLOPES
BIRNVILLE PART

THE BIRNVILLE SERIES CONSISTS OF WELL DRAINED SOILS FORMED IN FINE TEXTURED COLLUVIAL AND RESIDUAL MATERIALS FROM BASIC IGNEOUS ROCK IN THE FOOTWALL. TYPICALLY, THE SURFACE LAYER IS VERY DARK BROWN SILTY CLAY LOAM ABOUT 18 INCHES THICK. THE SUBSOIL IS DARK REDDISH-BROWN CLAY ABOUT 22 INCHES THICK. THE SUBSTRATUM IS WEATHERED BASIC ROCK. ELEVATIONS ARE 350 TO 2000 FEET. MEAN ANNUAL PRECIP IS 30 TO 60 INCHES. MEAN ANNUAL AIR TEMP. IS 49 TO 54 DEGREES. FROST FREE PERIOD IS 100 TO 225 DAYS.

LANDSCAPE AND CLIMATE PROPERTIES													
ANNUAL AIR TEMPERATURE	FROST FREE DAYS	ANNUAL PRECIPITATION	ELEVATION (FT)	DRAINAGE CLASS	SLOPE (PCT)								
	180-231	30-60	350-2000	W	3-12								
ESTIMATED SOIL PROPERTIES													
DEPTH (IN.)	USDA TEXTURE	UNIFIED	ACRYS	FRACT. > 10 IN (PCT)	FRACT. > 3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 2- PASS (NO. 20) SIEVE				CLAY (PCT)			
0-14	SL	CL	A-6			0-10	10-20	20-40	40-60	60-100	27-40		
14-28	C, CB-C, SIC	CL	A-7			0-30	30-60	60-100	60-100	60-100	40-60		
28-30	WO	CL											
DEPTH (IN.)	LIQUID LIMIT	PLAS. VIC. INDEX	WATER BULK DENSITY (G/CM3)	PERMA- FRICT. (LBYR)	AVAILABLE WATER CAPACITY (L/IN)	SOIL REACTION (pH)	SALINITY (MMH/CM)	SAR	CEC (ME/100C)	CEC (PCT)	ESPAN (PCT)		
0-14	35-40	15-20	1.30-1.60	0.6-1.0	0.12-0.21	5.0-5.5							
14-28	60-66	30-60	1.30-1.60	0.60-0.2	0.12-0.17	5.0-5.8							
28-30													
DEPTH (IN.)	ORGANIC MATTER (PCT)	SHRINK-SWELL POTENTIAL	EROSION FACTORS	WIND EROD. GROUP	WIND EROD. INDEX	COARSIVITY							
0-14	3-6	MODERATE	32	3	3	STEEL	CONCRETE						
14-28		HIGH	34	3	3	MODERATE	MODERATE						
28-30													
FLOODING			HIGH WATER TABLE			CEMENTED PAV		BRICK		SUBSIDENCE		HYD. POTENTIAL	
FREQUENCY	DURATION	MOVING	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS (LB)	DEPTH (IN)	HARDNESS (LB)	INCH	TOTAL (IN)	CRP	PAST
			20.0					20-30	SOFT				
SANITARY FACILITIES						CONSTRUCTION MATERIAL							
SEPTIC TANK ABSORPTION FIELDS	SEVERE-DEPTH TO ROCK, PERCS SLOWLY					ROADFILL	POOR-DEPTH TO ROCK, LOW STRENGTH						
SEWER LAGOON AREAS	SEVERE-DEPTH TO ROCK, SLOPE					SAND	IMPROBABLE-EXCESS FINES						
SANITARY LANDFILL (TRENCH)	SEVERE-DEPTH TO ROCK, TOO CLAYEY					GRAVEL	IMPROBABLE-EXCESS FINES						
SANITARY LANDFILL (AREA)	SEVERE-DEPTH TO ROCK					TOPSOIL	POOR-LARGE STONES						
DAILY COVER FOR LANDFILL	POOR-DEPTH TO ROCK, TOO CLAYEY, HARD TO PACK												
BUILDING SITE DEVELOPMENT													
SHALLOW EXCAVATIONS	MODERATE-DEPTH TO ROCK, TOO CLAYEY					EMBANKMENTS, SIZES AND LEVELS	SEVERE-HARD TO PACK						
DWELLINGS WITHOUT BASEMENTS	SEVERE-SHRINK-SWELL					EXCAVATED PONDS	SEVERE-NO WATER						
DWELLINGS WITH BASEMENTS	SEVERE-SHRINK-SWELL					DRAINAGE	DEEP TO WATER						
SMALL COMMERCIAL BUILDINGS	SEVERE-SHRINK-SWELL					IRRIGATION	LARGE STONES, PERCS SLOWLY, DEPTH TO ROCK						
LOCAL ROADS AND STREETS	SEVERE-LOW STRENGTH, SHRINK-SWELL					TERRACES AND REVERSIONS	LARGE STONES, DEPTH TO ROCK						
LAWN, LANDSCAPING AND GOLF FAIRWAYS	MODERATE-LARGE STONES, DEPTH TO ROCK					GRASSES, WATERWAYS	LARGE STONES, DEPTH TO ROCK						

8-2

LAND COUNTY AREA, OREGON

USDA-XCS
12-60

SOIL INTERPRETATIONS RECORD
42C GRESHVILLE-PHILMATH-MAZELAIR COMPLEX, 3 TO 12 PERCENT SLOPES
PHILMATH PART

THE PHILMATH SERIES CONSISTS OF WELL DRAINED SOILS FORMED IN FINE TEXTURED COLLUVIAL AND RESIDUAL MATERIALS FROM GABBRO. THEY OCCUR IN THE FOOTHILLS. TYPICALLY THE SURFACE LAYER IS VERY DARK BROWN SILTY CLAY OR CLAY ABOUT 9 INCHES THICK. THE SUBSOIL IS VERY DARK BROWN CLAY, ABOUT 8 INCHES THICK. THE SUBSTRATUM IS PARTIALLY WEATHERED GABBRO. ELEVATION IS 320 TO 3000 FEET. MEAN ANNUAL PRECIP. IS 30 TO 60 INCHES. MEAN ANNUAL AIR TEMP. IS 45 TO 54 DEGREES. FROST FREE PERIOD IS 103 TO 226 DAYS.

LANDSCAPE AND CLIMATE PROPERTIES					
ANNUAL AIR TEMPERATURE	FROST FREE DAYS	ANNUAL PRECIPITATION	ELEVATION (FT)	DRAINAGE CLASS	SLOPE (PCT)
	165-275		320-3000	W	2-12

ESTIMATED SOIL PROPERTIES												
DEPTH (IN.)	USDA TEXTURE	UNIFIED	ASSTS		FACTY. 1/2 IN. (PCT)	FACTY. 3/4 IN. (PCT)	PERCENT OF MATERIAL LESS THAN 2" PASSING SIEVE NO.				CLAY (PCT)	
			A-7	A-7	16-30	6-30	88-100	75-80	70-85	60-80	40-60	40-60
0-4	CO-SIC	CM										
0-10	C, CO-SIC, CO-C	CM										
14-18	MS											

DEPTH (IN.)	LIQUID LIMIT	PLAS. INDEX	MOIST. CAP. (%)	BULK DENSITY (G/CM3)	PERMEABILITY (CM/HR)	AVAILABLE WATER CAPACITY (%)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SAR	CEC (CM/100G)	LOGS (PCT)	COESUM (PCT)
0-4	80-90	20-25	1.20-1.40	0.8-2.0	0.14-0.17	0.8-8.5						
0-10	80-90	20-25	1.20-1.40	0.8-2.0	0.14-0.18	0.8-7.3						
14-18												

DEPTH (IN.)	ORGANIC MATTER (PCT)	SHRINK-SWELL INDEX	EROSION FACTORS	WIND EROSION GROUP	WIND EROSION INDEX	CONCRETE
0-4	7-9	HIGH	24	1	88	STEEL, CONCRETE
0-10		HIGH				MODERATE, MODERATE
14-18						

FLOODING		HIGH WATER TABLE		CEMENTED PAV.		ROADS		SUBSIDENCE		HYDRO. POTENTIAL	
FREQUENCY	SWAYING	DEPTH (FT)	KIND	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	10FT. TOTAL	TOTAL	CRP	POTENTIAL ACTION
None		18.0		12-18	SOFT						

SEWAGE FACILITIES		CONSTRUCTION MATERIAL	
SEPTIC TANK ABSORPTION FIELDS	SEVERE-DEPTH TO ROCK	ROADFILL	POOR-DEPTH TO ROCK, LOW STRENGTH
SEWAGE LAGOON AREAS	SEVERE-DEPTH TO ROCK, SLOPE	SAND	IMPROBABLE-EXCESS FINES
SANITARY LANDFILL (TRENCH)	SEVERE-DEPTH TO ROCK, TOO CLAYEY	GRAVEL	IMPROBABLE-EXCESS FINES
SANITARY LANDFILL (AREA)	SEVERE-DEPTH TO ROCK	TOPSOIL	POOR-DEPTH TO ROCK, TOO CLAYEY, LARGE STONES
DAILY COVER FOR LANDFILL	POOR-DEPTH TO ROCK, TOO CLAYEY, HARD TO PACK		

WATER MANAGEMENT		WATER MANAGEMENT	
SHALLOW EXCAVATIONS	SEVERE-DEPTH TO ROCK	POND RESERVOIR AREA	SEVERE-DEPTH TO ROCK
DWELLINGS WITHOUT BASEMENTS	SEVERE-SHRINK-SWELL	EMBANKMENTS DICES AND LOVED	SEVERE-HARD TO PACK
DWELLINGS WITH BASEMENTS	SEVERE-DEPTH TO ROCK, SHRINK-SWELL	EXCAVATED PONES EQUIPPED PER	SEVERE-NO WATER
SMALL COMMERCIAL BUILDINGS	SEVERE-SHRINK-SWELL	DRAINAGE	DEEP TO WATER
LOCAL ROADS AND STREETS	SEVERE-LOW STRENGTH, SHRINK-SWELL	IRRIGATION	LARGE STONES, SLOW INTAKE, PERCS SLOWLY
LAWNS, LANDSCAPING AND GOLF PATHWAYS	SEVERE-DEPTH TO ROCK, TOO CLAYEY	TERRACES AND DIVERSIONS	LARGE STONES, DEPTH TO ROCK
		GRASED WATERWAYS	LARGE STONES, DEPTH TO ROCK

11-2

161

8-5

43C DIXONVILLE-PHILMATH-HAZELRAI COMPLEX, 3 TO 12 PERCENT SLOPES
HAZELRAI PART

USDA-222
7-67

		RECREATIONAL DEVELOPMENT																	
CAMP AREAS	SEVERE-WETNESS	PLAYGROUNDS										SEVERE-SLOPE,WETNESS							
	PICNIC AREAS												MODERATE-WETNESS						
CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)																			
CAPA-BILITY		WHEAT, WINTER (BW)		BARLEY (BU)		BLACK-BERBERIS (BB)		GRASS MAT		PASTURE									
		1000 LBS	1000 LBS	1000 LBS	1000 LBS	1000 LBS	1000 LBS	(TONS)	(AUM)	4000 LBS	1000 LBS	4000 LBS	1000 LBS						
4C		40	50	4	3	9	12												
WOODLAND SUITABILITY																			
DSD SYM		MANAGEMENT PROGRAMS				POTENTIAL PRODUCTIVITY				TREES TO PLANT									
		GRASS	WOOD	SHRUB	WINDTH	PLANT	COMMON TREES				SITE PROD	INDEX CLASS							
		HAZARD	LIMIT	MOIST	HAZARD	COMNET	NONE												
WILDLIFE HABITAT SUITABILITY																			
POTENTIAL FOR HABITAT ELEMENTS																			
GRAIN & LEGUMES		WILD HERB		HARDWOOD TREES		CONIFER SHRUBS		WETLAND PLANTS		SHALLOW WATER		OPENLD WILDLF		WOODLD WILDLF		WETLAND WILDLF		BARRENLD WILDLF	
FAIR		GOOD		GOOD		FAIR		GOOD		V. POOR		V. POOR		GOOD		V. POOR			
POTENTIAL NATIVE PLANT COMMUNITY (RANGELAND OR FOREST UNDERSTORY VEGETATION)																			
COMMON PLANT NAME		PLANT SYMBOL (NRSF)		PERCENTAGE COMPOSITION (DRY WEIGHT)															
COMMON SMOKEBERRY		SYAL																	
RUSH		JUNCU																	
OTHER ANNUAL GRASSES		AACC																	
OTHER ANNUAL FORBS		AAPP																	
ROSE		RDSA-																	
POTENTIAL PRODUCTION (LBS./AC. DRY WT):		FAVORABLE YEARS																	
		NORMAL YEARS																	
		UNFAVORABLE YEARS																	

FOOTNOTES

11-5

164

070/97020

01/12/2008 11:19 AM 941 082 594/ LANE CO, LAND MGMT.

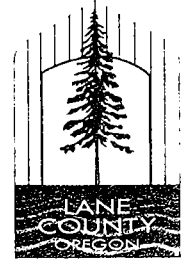
EXHIBIT 12

Table E1. - Forest Productivity - Continued

Lane County Area, Oregon

Map Symbol and Soil Name	Potential Productivity			Trees to Manage
	Common Trees	Site Index	Volume of Wood Fiber Cu Ft/Acre	
41F:				
Dixonville	Douglas Fir	109	152	Douglas Fir
	Grand Fir	--	--	Ponderosa Pine
	Oregon White Oak	--	--	
	Pacific Madrone	--	--	
42E:				
Dixonville	Douglas Fir	109	152	Douglas Fir
	Grand Fir	--	--	Ponderosa Pine
	Oregon White Oak	--	--	
	Pacific Madrone	--	--	
Hazelair	--	--	--	--
Urban Land	--	--	--	--
43C:				
Dixonville	Douglas Fir	109	152	Douglas Fir
	Grand Fir	--	--	Ponderosa Pine
	Oregon White Oak	--	--	
	Pacific Madrone	--	--	
Philomath	--	--	--	--
Hazelair	--	--	--	--
43E:				
Dixonville	Douglas Fir	109	152	Douglas Fir
	Grand Fir	--	--	Ponderosa Pine
	Oregon White Oak	--	--	
	Pacific Madrone	--	--	
Philomath	--	--	--	--
Hazelair	--	--	--	--
44:				
Dune Land	--	--	--	--
45C:				
Dupee	--	--	--	--
46:				
Ellertsen	Bigleaf Maple	--	--	Douglas Fir
	Douglas Fir	133	199	Western Hemlock
	Grand Fir	--	--	
	Red Alder	--	--	
	Western Hemlock	--	--	
	Western Redcedar	--	--	

Date of Memo: March 28, 2006
To: Lane County Planning Commission
From: Jerry Kendall/Associate Planner *JK*
Re: PA 05-5985/Plan Amendment /Zone Change for Ogle/Childs



LAND MANAGEMENT DIVISION
http://www.LaneCounty.org/PW_LMD/

BACKGROUND:

The Planning Commission held a public hearing on this matter on February 21. At the end of the hearing, the record was left open in the following manner:

- Until March 7 for any party to submit written materials on any aspect of the proposal.
- Until March 14 for any party to respond to materials that were submitted during the period above.
- Until March 21 for applicant's final rebuttal.
- The Planning Commission is to then deliberate and forward a recommendation to the Board on April 4.

Comment:

At the end of the hearing on February 21, the Planning Commission (PC) asked staff to research and respond to three items. Staff's listing of those three items, as well as a response to each, is found in Attachment #9.

The remainder of the attachments are either submittals by parties or supporting documentation inserted into the record by staff concerning the three items.

ATTACHMENTS:

1. 2-22-06 Staff email, listing three items posed by the PC—1p.
2. 2-23-06 Email from Comm. Becker, clarifying his question on the 107C soils—2pp.
3. 2-28-06 Staff memo concerning item #3 raised by Mr. Ulloa—5pp.
4. 2-28-06 Submittal from Mr. Ulloa on item #3—45pp.
5. 3-3-06 Submittal from J. & J. Ulloa, w/attachments—47pp.
6. 3-6-06 Memo, Kathi Wiederhold to Staff (JK)—2pp.
7. 3-7-06 Submittal from J. Just—13pp.
8. 3-7-06 Submittal from M. Farthing—13pp.
9. 3-7-06 Staff memo to PC on three items—2pp.
10. 3-13-06 Submittal from J. Just—4pp.
11. 3-14-06 Submittal from M. Farthing—4pp.
12. 3-21-06 Final rebuttal, M. Farthing—8pp.

KENDALL Jerry

From: KENDALL Jerry
Sent: Wednesday, February 22, 2006 12:31 PM
To: HOWE Kent
Cc: LAIRD Matt P
Subject: Ogle/PC

Re: last night's PC hearing on the Ogle Plan/zone change:

As the PC proceeded to ask me questions on the proposal I informed them of the direction I had received from you, that is, after having made the original staff recommendation of approval based on the original submittal, that any additional information would simply be presented to the PC without analysis by staff, and that the PC would have to reach their own conclusions after listening/questioning all parties, taking benefit of the expert consultants to maintain and defend their positions. There was no initial comments from the PC when so informed.

Later, as the hearing progressed, there were 3 items that the PC requested staff (via a motion) to research and respond to. I told them that I would relay their request to you, and that if so authorized by you I will research and respond. Comm. Becker added that if staff was not authorized to respond, that such be stated by email.

The three items are:

1. The issue of the "grasslands" area which comprises approximately 1/3 (24 acres) of the proposed ML. Basically stated, the applicant does not count this as productive land, whereas the opposition states it has to be counted. The forester noted that these areas are south facing, with summer surface temperatures reaching 130 degrees. Although advised by Mr. Farthing of the '97 BCC guideline favoring on-site analysis by a qualified forester, the PC wants to know if there any legislative or court case rulings on this topic. I will ask Legal Counsel about this also.
2. Related to the above, Comm. Becker cited an apparent discrepancy in documentation provided by the Applicant's agronomist (Mr. Caruana) and his forester (Mr. Setchko) in regards to the #107C Philomath soils in the area near the juncture of the two powerline easements, known as the "Gumby" area because of its shape. On p.11, table 14 of his submittal, the agronomist provides auger hole and back hoe pit test results. The agronomist notes that the 107C soils have a published depth of 14", while the test samples range from 14" to 56". He states that the "...pattern of forest cover on the property was found to follow closely the presence of deeper soils on the property" (p.12). The PC noted that such is not necessarily reflected on table 14, as, for example, it notes grass present on 40" deep soil, and trees on 14" deep soils. Mr. Caruana explained that the discrepancy was caused by localized inclusions. The forester, on the other hand, maintains that the approximate 24 acres of 107C grasslands are not productive due to shallow soil depths and high summertime temperatures. The PC requested staff to separately advise them on this issue (in conjunction with soils scientist Kathi Wiederhold of LCOG).
3. A neighbor in opposition, Mr. Ulloa, mentioned a statement made by (?) the former landowner or consultant to the effect that after the north 40 acres was rezoned to ML in 1992, that no further rezones would occur. Staff was requested to include that statement into the record and to comment on it. I anticipate this will only take 10 minutes.

So, please let me know asap as to whether to research & respond, as we have 2 weeks to turn in the materials, and Kathy has her own schedule issues.

*Valid response from R.H:
proceed w/ research. - 2-22-06 -*

Jerry Kendall, Associate Planner
541-682-4057 (desk)
fax: 541-682-3947
Jerry.Kendall@co.lane.or.us

KENDALL Jerry

From: ebecker [REDACTED]
Sent: Thursday, February 23, 2006 5:15 PM
To: KENDALL Jerry
Subject: RE: staff items for Ogle

available water holding capacity--which is affected by soil depth, coarse fragment, soil texture and structure, etc. Kathy will know what it is, and how it affects productivity of site.

Ed

----- Original message -----

From: "KENDALL Jerry" <Jerry.KENDALL@co.lane.or.us>
 OK. Kent and I will meet with Kathy W. on friday to discuss this. In case Kathy doesn't know, what does "AWHC" stand for?

Jerry Kendall, Associate Planner
541-682-4057 (desk)
fax: 541-682-3947
Jerry.Kendall@co.lane.or.us

-----Original Message-----

From: ebecker [REDACTED]
Sent: Wednesday, February 22, 2006 5:22 PM
To: KENDALL Jerry
Subject: Re: staff items for Ogle

Jerry--My last message may have gotten cut off, so basically your description of question under #2 is correct. My main concern is not with the grassland area but with 107c. As you note, the soil scientist has site specific information which indicates that 107c is more productive than what Setchko describes in his report. Setchko's calculations are based on the soil type limited to a 14 inch depth, while the soil pits indicate that 70% of these pits are well deeper than 14inches--thereby enhancing AWHC and other soil nutrient issues related to clay and clay loam soils--greater cation exchange capacity, etc. So we need some good advice regarding how to handle this discrepancy--especially when 107c is about 40% of the parcel soils and certainly affects productivity calculations. In my opinion the new info on soils really affects the overall "marginality" of the parcel and you should take a look at staff recommendation with the new info and validate your recommendation.

thanks , Ed

----- Original message -----

From: "KENDALL Jerry" <Jerry.KENDALL@co.lane.or.us>

Comm. Becker:

Here is my recollection on the 3 items the PC wanted staff assistance on , after last night's hearing.

I am especially interested in getting #2 straight. If you have any edits/comments, please let me know this week. Thank you.

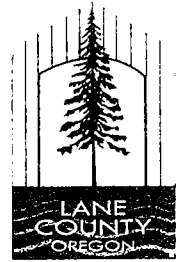
1. The issue of the "grasslands" area which comprises approximately 1/3 (24 acres) of the proposed ML. Basically stated, the applicant does not count this as productive land, whereas the opposition states it has to be counted. The forester noted that these areas are south facing, with summer surface temperatures reaching 130 degrees. Although advised by Mr. Farthing of the '97 BCC guideline favoring on-site analysis by a qualified forester, the PC wants to know if there any legislative or court case rulings on this topic. I will ask Legal Counsel about this also.

2. Related to the above, Comm. Becker cited an apparent discrepancy in documentation provided by the Applicant's agronomist (Mr. Caruana) and his forester (Mr. Setchko) in regards to the #107C Philomath soils in the area near the juncture of the two powerline easements, known as the "Gumby" area because of its shape. On p.11, table 14 of his submittal, the agronomist provides auger hole and back hoe pit test results. The agronomist notes that the 107C soils have a published depth of 14", while the test samples range from 14" to 56". He states that the "...pattern of forest cover on the property was found to follow closely the presence of deeper soils on the property" (p.12). The PC noted that such is not necessarily reflected on table 14, as, for example, it notes grass present on 40" deep soil, and trees on 14" deep soils. Mr. Caruana explained that the discrepancy was caused by localized inclusions. The forester, on the other hand, maintains that the approximate 24 acres of 107C grasslands are not productive due to shallow soil depths and high summertime temperatures. The PC requested staff to separately advise them on this issue (in conjunction with soils scientist Kathi Wiederhold of LCOG).

3. A neighbor in opposition, Mr. Ulloa, mentioned a statement made by (?) the former landowner or consultant to the effect that after the north 40 acres was rezoned to ML in 1992, that no further rezones would occur. Staff was requested to include that statement into the record and to comment on it. I anticipate this will only take 10 minutes.

Jerry Kendall, Associate Planner
541-682-4057 (desk)
fax: 541-682-3947
Jerry.Kendall@co.lane.or.us

Date: 2-28-06
To: File PA 05-5985/Ogle
From: Jerry Kendall/LMD staff *JK*
Re: Assertion by Mr. Ulloa



LAND MANAGEMENT DIVISION
http://www.LaneCounty.org/PW_LMD/

At the public hearing on 2-21-06, a neighbor in opposition to the proposal, Mr. Jesse Ulloa, made mention of a finding in a previous land use action which he indicated precludes further division of the subject property in the current application.

Mr. Ulloa provided me with a copy of the document. It is in the file record, two pages of which are attached to this memo.

The document is partition file PA 3826-92, which created tax lots 303 and 304, along with a 99.7 acre parcel that is within the city limits of Eugene.

The first reference is found in the Findings of 4-27-93 for the partition. See "VI. Findings", under B, page attached to this memo. Discussing the two parcels (present day tax lots 303 & 304, portions of which are the subject of the current application), the LMD planner states "Neither parcel has 40 acres within the Exclusive Farm Use zone, so the applicant proposes a notation on the final plat that will alert future owners that neither parcel can be redivided".

The above finding was suggested by Jim Saul, agent for the partition applicant, in his letter dated 4-19-93 (attached). In it, Mr. Saul states "It is understood that the final partition plat will have a notation that neither parcel can be further divided".

The final plat map is also attached. The aforementioned statement appears in the upper right portion of the plat, Note #4, which states "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." A blow-up of the Notes is also attached. This wording is the same as was imposed by the planner in condition #8 of the preliminary partition approval. LC 16.214 is the Marginal Lands ordinance, whereas LC 16.212 is the EFU ordinance.

Staff comment: Although it appears from the context of the findings and Mr. Saul's letter that the final plat note should have cited LC 16.212 instead of LC 16.214, in either event the statement is factual, that is, neither the ML or the EFU ordinance would allow the 2 parcels to be further divided per the provisions found in those ordinances. However, the statement makes no mention of precluding a landowner's future right to apply for a Plan Amendment/Rezone to ML, and, if successful, redividing the parcels.

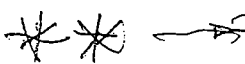
PC # 3-5 pp.


One result of this land partition is to authorize parcel 3 as a potential building site for one residence until the land is subdivided. The City of Eugene, rather than Lane County, would be responsible for issuing the building permit.

Another result would be to create two other parcels outside of the Urban Growth Boundary that will be subject to the land use regulations of Chapter 16 Lane Code. Both of these parcels will be "split zoned", in the sense that the northern third is zoned Marginal Lands and the remainder is zoned Exclusive Farm Use. The applicant is aware that neither parcel can be redivided because the agricultural portion of the parcels is less than the 40 acre minimum of the E40 zone (see Exhibit 7). The final plat will include a notation to that effect.

Tax lots 300/301 are within the Eugene School District and the Bailey-Spencer Rural Fire Protection District.

VI. FINDINGS

 A. The proposed partition of tax lots 300/301 complies with Lane Code 13.050(1) because it fulfills the relevant policies of the Eugene-Springfield Metropolitan Area General Plan and the Lane County Rural Comprehensive Plan. The former pertains to the northern 99.7 acres of the site, which are inside the corporate limits of Eugene and the Urban Growth Boundary (UGB). The Metro Plan promotes development of land within the UGB where public facilities are in place or can be provided. The Rural Comprehensive Plan applies to unincorporated land beyond the UGB, where the policy is to prohibit expansion of urban services. The public infrastructure necessary for the build-out of parcel 3 will eventually be specified by the City of Eugene, however it will not extend onto parcels 1 and 2 because to do so would be contrary to Goal 11 of the Rural Comprehensive Plan.

 B. The proposal to partition tax lots 300/301 into 3 new parcels complies with Lane Code 13.050(2) because each meets the minimum area requirements specified by Eugene and Lane Code. The northern portion of parcels 1 and 2 are zoned Marginal Lands, where the minimum area requirement for the creation of new parcels is 20 acres. Both parcels contain at least 20 acres within the Marginal Lands zone boundary. Neither parcel has 40 acres within the Exclusive Farm Use zone, so the applicant proposes a notation on the final plat that will alert future owners that neither parcel can be redivided. Parcel 3 is a 99.7 acre site that will eventually be developed as another phase of the Somerset Hills subdivision.


Saul & Associates

April 19, 1993

Mr. Harvey Hoglund
Land Management Division
125 East 8th Avenue
Eugene, OR 97401

SUBJECT: Somerset Property Partition - PA 3826-92

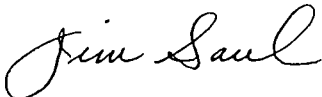
Dear Harvey:

I have reviewed the options you have proposed for the division of the subject property with the owners. They wish to have the division line established as shown in the most recent submittal from Donn Stemm. It is understood that the final partition plat will have a notation that neither parcel can be further divided. The division line shown on Mr. Stemm's submittal is based on the location of an existing access road and other physical features of the property. 

I have also attached a copy of a letter from the Eugene Planning & Development Department indicating that it does not need a redevelopment plan for Parcel #3 of the proposed partition. The letter also indicates the availability of water and sanitary sewer service for the proposed Parcel #3. I believe that this letter should allow you to remove two of the proposed conditions of tentative approval of this partition.

Please let me know if you have any questions concerning either the owners' wishes with respect to configuration of this partition or the referral from the City of Eugene.

Sincerely,



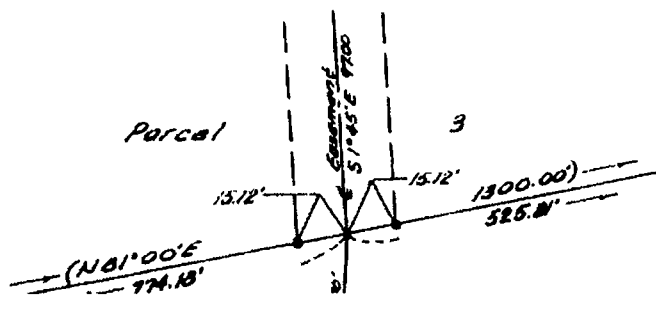
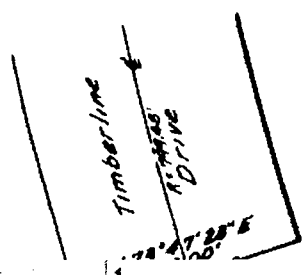
Jim Saul

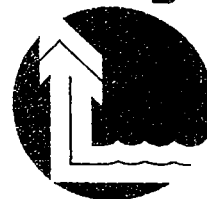
Encl.

cc: Mr. Jim Breeden [with encl.]

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 1932 Reception No. 9425809, 10021.
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.





NOTICE OF ADMINISTRATIVE DECISION
BY THE COUNTY PLANNING DIRECTOR

Date: April 27, 1993

File No: PA 3826-92

Owner/Applicant:

J.T. Breeden
Breeden Bros. Inc.
366 East 40th Avenue
Eugene OR 97405

Agent:

Jim Saul
Saul & Associates
P.O. Box 1650
Eugene OR 97440

Location:

Eugene UGB

Legal description:

Tax lots 300/301, map 18-04-11

Proposal: Partition a 213.5 acre parcel into three parcels. Parcels 1 and 2 are outside of the Urban Growth Boundary (UGB), and zoned Marginal Lands/Exclusive Farm Use. Parcel 1 is 55.4 acres. Parcel 2 is 58.4 acres. Parcel 3, the residual 99.7 acres, is within the UGB and the corporate limits of Eugene. It is zoned RAPD, Suburban Residential/Planned Development.

The preliminary plan to partition this site and a variance to allow access by easement have been approved by the Planning Director, based on findings in the enclosed staff report that explain how the relevant criteria of Sections 13.050, 16.212 and 16.214 are met. The partition is subject to nine conditions listed below. The approval will lapse if the conditions have not been met and the final plat has not been recorded by 5-7-95.

1. The applicant shall obtain approval for subsurface sewerage disposal for parcels 1 and 2 from the Lane County Sanitarian. Both homesites shall be located within the ML zone.
2. The applicant shall prove that potable water is available for parcels 1 & 2 by one of three methods described in Attachment "A". A well log shall demonstrate that 80% of the wells in the area produce at least 5 gallons per minute; or a 5 hour pump test shall demonstrate a recovery rate of at least 200 gallons per day; or transmissivity, permeability, storage coefficient, and specific capacity shall be derived by accepted aquifer test procedures. Chemical and bacteriological tests are required to establish that the water is safe for consumption.

FEB 28 2006

FILE #	PA _____
EXHIBIT #	_____

- 45/8

from Mr. Ulloa (opposed) PC # 4-45/8

3. The applicants shall record the Statement of Water Rights identified as Attachment "B" with the Lane County Department of Deeds and Records. The recording information shall be noted on the final plat, and a copy of the signed document shall be included with Attachment "E". The Water Master indicates that tax lots 300/301, map 18-04-11, have no recorded water rights.
4. A 60 foot wide easement shall be established from the southern terminus of Timberline Drive to the junction of parcels 1, 2 and 3. The applicant shall record an easement agreement patterned after Attachment "C" with the Lane County Division of Deeds and Records. The recording information shall be noted on the plat, and a copy of the easement shall be included with Attachment "E" when the final plat is presented for approval.
5. The access easement and the corporate boundary of Eugene shall be surveyed. Monuments shall be placed at both ends of the easement and enough intermediate points to assure that it can be relocated after construction.
6. Road and drainage plans prepared by an engineer licensed in the State of Oregon shall be submitted to Lane County Land Management for review and approval. The road shall be graded and graveled to a width of 16 feet as depicted on Attachment "D".
7. The final plat shall be prepared by a surveyor licensed in the State of Oregon to comply with ORS Chapter 92 and meet the specifications of Section 13.310 listed in Attachment "E" of this report. The southern boundary of parcel 3 shall coincide with the corporate boundary of Eugene. The precise acreage of each parcel shall be noted on the final plat, along with all other existing or proposed easements. The easements shall be identified by recording reference numbers.
8. The following notations shall be placed on the final plat:

Significant levels of arsenic have been detected in local groundwater.

Provisions of Section 16.214 Lane Code in effect at the time this plat was approved prohibit parcels 1 and 2 from being redivided.

The National Wetlands Inventory indicates that wetlands are present on parcel 3. Site alterations and/or new construction may require permits from the US Army Corps of Engineers or the Oregon Division of State Lands.

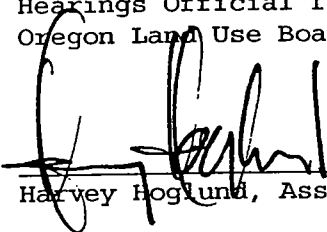
9. A subdivision guarantee report that confirms ownership and all interests shall be prepared within 30 days of filing. The report shall be included with Attachment "E" when the final plat is presented for approval, and shall be updated by the applicant as necessary prior to filing.

The decision for approval of the preliminary plan will become final at 5:00 P.M., May 7, 1993, unless appealed to the Lane County Hearings Official. Chapter 14 of the Lane Code specifies the following requirements for an appeal:

1. A completed Appeal Application form;
2. Payment of a \$100 appeal fee payable to Lane County Land Management Division; and
3. Timely filing of the Appeal Application and fee by the 5:00 P.M. deadline.

Chapter 215, Oregon Revised Statutes, requires that mortgagees, lien holders, vendors or sellers must inform purchasers of this notice. All documents in the case file may be inspected at Lane County Land Management, 125 East 8th Avenue, Eugene. Photocopies will be provided at nominal cost. If you have questions or wish to offer comments, contact Harvey Hoglund at 687-4103.

An important note: Failure to raise an issue in the appeal to the Hearings Official forecloses that issue in any subsequent appeal to the Oregon Land Use Board of Appeals.



Harvey Hoglund, Associate Planner

LANE COUNTY PLANNING DIRECTOR
STAFF REPORT

Report Date: April 27, 1993

File No: PA 3826-92

I. PROPOSAL DESCRIPTION

A. Owner/Applicant:

J.T. Breeden
Breeden Bros. Inc.
366 East 40th Avenue
Eugene OR 97405

Agent:

Jim Saul
Saul & Associates
P.O. Box 1650
Eugene OR 97440

B. Proposal:

Partition a 213.5 acre parcel into three parcels. Parcels 1 and 2 are outside of the Urban Growth Boundary (UGB), and zoned Marginal Lands/Exclusive Farm Use. Parcel 1 is 55.4 acres. Parcel 2 is 58.4 acres. Parcel 3, the residual 99.7 acres, is within the UGB and the corporate limits of Eugene. It is zoned RAPD, Suburban Residential/Planned Development.

II. DECISION

Approval of the preliminary plan identified as Exhibit "1" of this report, which partitions tax lots 300 and 301, map 18-04-11, into three parcels. Pursuant to Lane Code 13.130, the preliminary approval will lapse if the following conditions have not been met and the final plat has not been recorded by 5-7-95. It is the applicants' responsibility to demonstrate that each of the conditions has been met by submitting Attachment "E" of this report with the final plat.

1. The applicant shall obtain approval for subsurface sewerage disposal for parcels 1 and 2 from the Lane County Sanitarian. Both homesites shall be located within the ML zone.
2. The applicant shall prove that potable water is available for parcels 1 & 2 by one of three methods described in Attachment "A". A well log shall demonstrate that 80% of the wells in the area produce at least 5 gallons per minute; or a 5 hour pump test shall demonstrate a recovery rate of at least 200 gallons per day; or transmissivity, permeability, storage coefficient, and specific capacity shall be derived by accepted aquifer test procedures. Chemical and bacteriological tests are required to establish that the water is safe for consumption.

3. The applicants shall record the Statement of Water Rights identified as Attachment "B" with the Lane County Department of Deeds and Records. The recording information shall be noted on the final plat, and a copy of the signed document shall be included with Attachment "E". The Water Master indicates that tax lots 300/301, map 18-04-11, have no recorded water rights.
4. A 60 foot wide easement shall be established from the southern terminus of Timberline Drive to the junction of parcels 1, 2 and 3. The applicant shall record an easement agreement patterned after Attachment "C" with the Lane County Division of Deeds and Records. The recording information shall be noted on the plat, and a copy of the easement shall be included with Attachment "E" when the final plat is presented for approval.
5. The access easement and the corporate boundary of Eugene shall be surveyed. Monuments shall be placed at both ends of the easement and enough intermediate points to assure that it can be relocated after construction.
6. Road and drainage plans prepared by an engineer licensed in the State of Oregon shall be submitted to Lane County Land Management for review and approval. The road shall be graded and graveled to a width of 16 feet as depicted on Attachment "D".
7. The final plat shall be prepared by a surveyor licensed in the State of Oregon to comply with ORS Chapter 92 and meet the specifications of Section 13.310 listed in Attachment "E" of this report. The southern boundary of parcel 3 shall coincide with the corporate boundary of Eugene. The precise acreage of each parcel shall be noted on the final plat, along with all other existing or proposed easements. The easements shall be identified by recording reference numbers.
8. The following notations shall be placed on the final plat:

Significant levels of arsenic have been detected in local groundwater.

Provisions of Section 16.214 Lane Code in effect at the time this plat was approved prohibit parcels 1 and 2 from being redivided.

The National Wetlands Inventory indicates that wetlands are present on parcel 3. Site alterations and/or new construction may require permits from the US Army Corps of Engineers or the Oregon Division of State Lands.

9. A subdivision guarantee report that confirms ownership and all interests shall be prepared within 30 days of filing. The report shall be included with Attachment "E" when the final plat is presented for approval, and shall be updated by the applicant as necessary prior to filing.

III. GENERAL INFORMATION

A. Site Description

Map 18-04-11, tax lots 300 and 301

The 213.5 acre site straddles the City Limits of Eugene south of the Somerset Hills subdivision. The Urban Growth Boundary (UGB) coincides with this segment of the corporate limits. Tax lot 300, the northern half of the site, is within the UGB and designated for residential use by the Eugene-Springfield Metropolitan Area General Plan. A narrow strip along the northern boundary of tax lot 300 is also within the UGB, however the rest of the site is unincorporated and subject to the Lane County Rural Comprehensive Plan. The northernmost 40 acres are designated Marginal Lands and zoned accordingly. The rest of tax lot 300 is designated for agricultural use and zoned E40. There are no existing structures on the site.

B. Surrounding Area and Zoning

Tax lot 301 is bounded on the north by the partially developed Somerset Hills subdivision. Land to the east and west of tax lot 301 is designated for residential use but is unplatted and undeveloped. The unincorporated land that surrounds tax lot 300 is designated for agricultural and forest use by the Lane County Rural Comprehensive Plan. The abutting property to the west is zoned E30, Exclusive Farm Use. A parcel to the east is zoned E40. The rest of the area is zoned F2, Impacted Forest.

C. Services

Service District 04-70
Eugene School District #4J
Bailey-Spencer Rural Fire Protection District
Access by way of an easement from Timberline Drive
Public water and sewer to parcel 3 from EWEB/City of Eugene
Individual wells and septic systems for parcels 1 & 2
Electricity from EWEB

D. Referral Responses

The City of Eugene Planning Department advises that the boundary between parcel 3 and the two parcels to the south should coincide with the corporate limits of Eugene. City sanitary sewers are available to serve parcel 3 and the Eugene Water & Electric Board is the provider of public water service in the area. The City of Eugene sees no need for a detailed redevelopment plan for parcel 3 at the present time (see Exhibit 6).

Lane County Transportation Planning notes that access to each of the new parcels will be from an extension of Timberline Drive, a city street platted as part of the Somerset Hills subdivision.

Lane County Land Management states that the site is not within the 100 year floodplain, however the National Wetlands Inventory indicates that wetlands are present on tax lot 301 (see Exhibit 5). The building division reminds the applicant that ORS 455 and OAR 814-23 require permits prior to construction on installation of water and sewer lines. The building division also recommends that the applicant have the Department of Assessment & Taxation assign separate tax lot numbers to the new parcels prior to approval of the final plat. Street addresses will be assigned when applications are made for building permits.

Lane County Surveyor states that tax lots 300/301 have not been partitioned before. The preliminary plan indicates access to the parcel 3 will be from Timberline Drive, a public road with a 70 foot wide right-of-way. It also indicates access to the other parcels will be by way of a 30 foot wide easement through parcel 3. The easement should be surveyed, with monuments at both ends and enough intermediate points to be able to relocate the easement after construction.

The final plat must conform to all requirements of ORS Chapter 92 and Lane Code Chapter 13 and be prepared by a land surveyor registered in the State of Oregon. All existing or proposed easements shall be noted on the final plat.

The Watermaster states there are no recorded water rights for tax lots 300/301.

E. Exhibits

1. Approved Preliminary Plan
2. Subdivision application (abridged)
3. Ordinance PA 1021
4. Plot map 319
5. National Wetlands Inventory map
6. City of Eugene referral, 16 April 1993
7. Hoglund/Saul letter, 19 April 1993
8. Attachments
 - a. Proof of Water Availability
 - b. Statement of Water Rights
 - c. Sample Easement Agreement
 - d. Typical Section of Road Improvement
 - e. Final Plat Requirements and Application Form

IV. APPROVAL CRITERIA

A. Lane County Rural Comprehensive Plan

The Lane County Rural Comprehensive Plan was adopted by the Board of County Commissioners and acknowledged by the Oregon Land Conservation and Development Commission in 1984.

The Comprehensive Plan designates the southern portion of tax lot 300 for agricultural use. On 3 June 1992 the Board of Commissioners adopted Ordinance PA 1021, which designated the northern 40 acres of the unincorporated portion of tax lot 300 as marginal lands (see Exhibits 3 & 4).

Goal 11 of the Rural Comprehensive Plan establishes the minimum standards for public facilities and services for each land use. There are no minimum service standards for agricultural lands since they are intended for resource management. The standards for marginal lands are the same as those for rural residential areas. Residential districts are to be served with schools, on-site or community sewerage disposal, individual or community water supply, electrical service, telephone service, rural level of fire and police protection, and reasonable access to a solid waste disposal facility. Individual wells and septic disposal systems are the norm.

B. Eugene-Springfield Metropolitan Area General Plan

The Eugene-Springfield Metropolitan Area General Plan was adopted in 1982, and amended in 1987. One of the goals of the Metro Plan is to provide viable residential communities; "...so all residents can choose sound, affordable housing that meets individual needs". The first of 34 different policies pertaining to residential districts is to "coordinate new residential development with the provision of an adequate level of services and facilities, such as sewers, water, transportation facilities, schools and parks".

Another goal of the Metro Plan is to provide and maintain public utilities, services, and facilities in an orderly and efficient manner. One of the implementing policies prevents the extension of water and sewer service beyond the Urban Growth Boundary (UGB); another stipulates that the relevant sections of the Metropolitan Public Facilities Plan shall serve as the basis for guiding water, sanitary and storm sewer improvements in the metropolitan region.

The Metropolitan Public Facilities Plan identifies a new reservoir proposed near the western boundary of the Somerset Hills subdivision. It also indicates that the site of the proposed land division is in the Amazon drainage basin. The Somerset Hill stormwater system leads to a line in Warren Street that discharges into the Amazon Canal. The Somerset Hills sanitary sewers connect to the Bailey Hill Road trunk line.

C. Chapter 13 Lane Code

Chapter 13 governs land divisions. Section 13.050 specifies the following standards for preliminary approval of partitions and subdivisions:

- 1) Conformity with the Comprehensive Plan. All divisions shall conform with the applicable Lane County Comprehensive Plan.
- 2) Conformity with the Zoning. All divisions shall comply with all specifications of the applicable zoning requirements, including uses of land, area and dimension requirements etc.
- 3) Relation to Adjoining Road System. A subdivision or partition shall provide for the continuation of major and secondary roads existing in adjoining subdivisions or partitions...
- 4) Redevelopment Plan. Redevelopment plans are required for parcels which can be redivided.
- 5) Access:
 - a) Lots or parcels shall have verifiable access by way of a county road, a public local access street or an easement. Verifiable access shall meet the following criteria:
 - i) Each lot or parcel abuts on the street for a distance of at least 20 feet.
 - ii) There is a legal right appurtenant to the lots or parcels to use the road for ingress and egress...
 - iii) The street provides actual physical access to the lots or parcels.
 - b) County and local access -- public streets used as access to lots or parcels shall be designed and developed according to the standard of Lane Code, Chapter 15 and Lane Manual, Chapter 15.
 - c) Easements used as access to lots or parcels shall meet the following criteria:
 - i) There shall be no more than four lots...
 - ii) Easements shall not be approved if a road is needed...
 - iii) The minimum width of easements shall be 20 feet.
 - iv) All approved documents creating a private access easement shall provide for the installation, construction maintenance thereof of all public utilities...
 - v) The County may require such improvements as are reasonably necessary to provide safe and adequate access to the lot or parcel.
 - vi) A lot or parcel abutting a railroad or limited access road...

- vii) Any easement approved as a private access easement shall be documented on a form acceptable to the Department...
 - viii) All approved easements shall be recorded.
 - ix) If the County determines that the access and transportation needs of the public would be better served if the private access easement being considered would be established as a public road...
- 6) Control Strip: The County may require that a strip of land contiguous to a road be dedicated or deeded to the public for the purpose of controlling access to or the use of a lot or parcel.
 - 7) Utility and Watercourse Easements. Utility easements (a) and drainage easements (b) may be required where necessary...
 - 8) Pedestrian and Bicycle Ways. When necessary for public convenience, safety, or as may be designed on an adopted master bike plan, the county may require that pedestrian or bicycle ways be improved and dedicated to the public.
 - 9) Dangerous Areas. Any area determined by the Director to be dangerous for road or building development by reasons of geological conditions, unstable subsurface conditions, groundwater or seepage conditions, floodplain, inundation or erosion or any other dangerous condition shall not be divided or used for development except under special consideration and restriction.
 - 10) Grading, Excavation and Clearings. Grading and clearing of any portion of a division by mechanical equipment for road and/or development purposes may be restricted or regulated either at the time of tentative plan approval or final approval if there is a finding that such grading or clearing presents a real threat of pollution, contamination, silting or water bodies or water supplies, erosion and slide damage, or alteration of natural drainage patterns in the area.
 - 11) Land for Public Purposes. When a public agency has demonstrated through a capital improvement program that it has definite plans to acquire a specified portion of a proposed division...
 - 12) Sewerage Facilities. Lots and parcels for which the applicable zoning districts permit residences, or for which residences are contemplated, shall be served by either an approved public or community sewerage facility or be suitable for an approved individual sewerage disposal facility...The establishment of rural sewerage facilities must be consistent with RCP Goal 2 Policy #24 and RCP Goal 11 policies.

- 13) Water Supply. Lots and parcels shall be served by an approved public, community or individual water system...The establishment of rural water systems shall be consistent with RCP Goal 2 policy #24 and RCP Goal 11 policies.

Section 13.120 states that the decision of the Director to approve a land division is subject to the procedures specified by Lane Code 14.100, which state that the Director shall determine if the evidence supports findings that the required criteria have been met.

Section 13.130 states that the preliminary plan is valid for two years from the date of approval "...to the date of completion of all requirements and filing with the County Recorder". Extensions may be granted according to the provisions of Lane Code 16.200.

Section 13.310 states that the Director shall approve the final plat if:

- 1) The final map or plat and any supporting documents are in substantial conformity with the approved preliminary plan,
- 2) Any conditions imposed by the approval authority have been met,
- 3) Final partition plan shall be considered fully approved by the Director when the Director's signature and dates thereof have been written on the face of the maps and plats and when the maps or plats have been recorded.
- 4) Approval or denial of final partition or subdivision plans shall be in writing to the applicant and/or the applicant's designated representative.

Section 13.320 lists the requirements for final partition plats that are included as Attachment "E" of this report.

D. Chapter 16 Lane Code

Chapter 16 governs land use and zoning in unincorporated Lane County. Section 16.212 pertains to the use of land within the E40, Exclusive Farm Use zone. Subsection 16.211(7) (a) specifies a 40 acre minimum for the creation of new parcels in the E40 zone.

Subsection 16.212(2) lists a series of permitted uses that include residences under certain circumstances. Subsection 16.212(7) identifies the criteria that must be met to obtain a Special Use Permit to reside on the property. In general, the Exclusive Farm Use zone is designed to carry out policies of the Lane County Rural Comprehensive Plan that severely restrict new residences.

Section 16.214 pertains to the ML, Marginal Lands zone. Subsection 16.214(6) states that land in the ML zone may be divided into 10 acre parcels if it is not adjacent to a farm or forest zone. If it is adjacent to either zone the minimum area requirement is 20 acres. Residences are permitted on legal lots.

One result of this land partition is to authorize parcel 3 as a potential building site for one residence until the land is subdivided. The City of Eugene, rather than Lane County, would be responsible for issuing the building permit.

Another result would be to create two other parcels outside of the Urban Growth Boundary that will be subject to the land use regulations of Chapter 16 Lane Code. Both of these parcels will be "split zoned", in the sense that the northern third is zoned Marginal Lands and the remainder is zoned Exclusive Farm Use. The applicant is aware that neither parcel can be redivided because the agricultural portion of the parcels is less than the 40 acre minimum of the E40 zone (see Exhibit 7). The final plat will include a notation to that effect.

Tax lots 300/301 are within the Eugene School District and the Bailey-Spencer Rural Fire Protection District.

VI. FINDINGS

* * * → A. The proposed partition of tax lots 300/301 complies with Lane Code 13.050(1) because it fulfills the relevant policies of the Eugene-Springfield Metropolitan Area General Plan and the Lane County Rural Comprehensive Plan. The former pertains to the northern 99.7 acres of the site, which are inside the corporate limits of Eugene and the Urban Growth Boundary (UGB). The Metro Plan promotes development of land within the UGB where public facilities are in place or can be provided. The Rural Comprehensive Plan applies to unincorporated land beyond the UGB, where the policy is to prohibit expansion of urban services. The public infrastructure necessary for the build-out of parcel 3 will eventually be specified by the City of Eugene, however it will not extend onto parcels 1 and 2 because to do so would be contrary to Goal 11 of the Rural Comprehensive Plan.

K B. The proposal to partition tax lots 300/301 into 3 new parcels complies with Lane Code 13.050(2) because each meets the minimum area requirements specified by Eugene and Lane Code. The northern portion of parcels 1 and 2 are zoned Marginal Lands, where the minimum area requirement for the creation of new parcels is 20 acres. Both parcels contain at least 20 acres within the Marginal Lands zone boundary. Neither parcel has 40 acres within the Exclusive Farm Use zone, so the applicant proposes a notation on the final plat that will alert future owners that neither parcel can be redivided. Parcel 3 is a 99.7 acre site that will eventually be developed as another phase of the Somerset Hills subdivision.

B. Chapter 9, Eugene Municipal Code

Chapter 9 governs land use and zoning within the corporate limits of Eugene. Section 9.308 pertains to RA, Suburban Residential districts, which are designed to create a semi-rural environment with key urban services and facilities. Section 9.060 specifies a 4,500 square foot minimum lot area.

Section 9.508 states several purposes for the PD zone, including the need to "encourage comprehensive planning in areas of sufficient size to provide developments at least equal in the quality of their environment to traditional lot by lot development..." The project review process is administered by the City of Eugene, pursuant to Sections 9.510-9.518 of the municipal code.

V. FACTS RELIED UPON

Tax lots 300 and 301, map 18-04-11, form a 213.5 acre parcel that straddles the City Limits of Eugene. The parcel was created by a deed recorded in Book 403, Page 559, Lane County Deeds and Records. It was executed in 1942, prior to the enactment of zoning and land division regulations, therefore by definition tax lots 300/301 constitute a legal parcel.

Tax lot 301, immediately south of the Somerset Hills subdivision, is within the corporate limits of Eugene and subject to the Eugene-Springfield Metropolitan Area General Plan. A narrow strip along the northern boundary of tax lot 300 is also within the city limits, however the southernmost 113.8 acres are unincorporated.

The unincorporated portion of tax lot 300 was designated for agricultural use and zoned E40 when the Lane County Rural Comprehensive Plan was originally adopted in 1984. On 3 June 1992 the Board of Commissioners adopted Ordinance PA 1021, which redesignated the northernmost 40 acres of the unincorporated portion of tax lot 300 as marginal lands and zoned it accordingly. The remaining 73.8 acres are zoned E40, Exclusive Farm Use (see Exhibits 4 and 5).

Tax lots 300/301 are not within the 100 year flood hazard area, however the National Wetlands Inventory indicates that wetlands are present on tax lot 301 (see Exhibit 5). There are no existing structures on either tax lot.

Access to each of the three new parcels will be by way of an extension of Timberline Drive, a public street that was dedicated as part of the Somerset Hills plat. The extension will be a private easement across parcel 3 to parcels 1 and 2 until such time that the public street is expanded as part of the next phase of Somerset Hills. Future proposals regarding parcel 3 will be processed by the City of Eugene, subject to the provisions of the Eugene Municipal Code.

- C. The proposed partition of tax lots 300/301 complies with Lane Code 13.050(3) because there is no need to extend the public road system onto or through the site at the present time. The road system for the Somerset Hills subdivision will expand onto parcel 3 when a development plan for the next phase is submitted to the City of Eugene, however as stipulated by Goal 11 of the Lane County Rural Comprehensive plan, it will not continue further south onto parcels 1 and 2.
- D. The proposed partition of tax lots 300/301 complies with Lane Code 13.050(4) because the City of Eugene sees no reason for a redevelopment plan at the present time. Parcels 1 and 2 cannot be redivided, and the final plat will include a notation to that effect.
- E. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(5) because access to each of the new parcels would be by way of an extension of Timberline Drive across parcel 3 to parcels 1 and 2. As a condition of approval, the applicant will be required to furnish a copy of the recorded easement that permanently guarantees access to each. The approved plan also widens the proposed easement from 30 to 60 feet, to coincide with the standard width of a public right-of-way.
- F. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(6) because no control strip is necessary.
- G. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(7) because all existing or proposed easements will be noted on the final plat.
- H. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(8) because no need has been identified for pedestrian or bicycle accessways across any of the new parcels.
- I. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(9)&(10) because neither parcel is within the 100 year floodplain, and the only other known hazard, the presence of arsenic in local groundwater, will be noted on the final plat.
- J. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(11) because there is no need for additional public right-of-way at the present time. Parcel 3 is located in the City of Eugene, where the dedication of public roads is an integral step in the land development process. The city will obtain the dedications necessary to augment the street system for the Somerset Hills subdivision when plans for the next phase of that project are submitted for review.

NO \$

K. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(12) because the applicant will be required to show that sewerage disposal facilities are feasible for each of the new parcels. Parcels 1 and 2 are beyond the Springfield-Eugene UGB, which means that they will not be served by a public sewer system. Therefore, as a condition of approval for the final plat, the applicant must furnish evidence from the county sanitarian that septic disposal systems will function properly. Parcel 3 is within the UGB and corporate limits of Eugene, and the city has verified that the municipal sewer system can be extended for the next phase of the Somerset Hills-subdivision.

L. The proposed partition of tax lots 300/301 conforms with Lane Code 13.050(13) because another condition of approval will require the applicant to demonstrate that water will be available for each of the new parcels. Parcels 1 and 2, which are outside the UGB, will be served by individual wells. Parcel 3, will be served by the extension of public water lines.

VII. CONCLUSIONS

1993
Approval of a preliminary plan to partition tax lots 300/301, map 18-04-11, is supported by findings that demonstrate how all applicable standards have been met.

EXHIBIT "2"

**Minor Partition Application
Breeden Bros., Inc.**

A. Introduction

This minor partition application involves approximately 213.46 acres of property located in southwest Eugene that is identified as Tax Lots 300 and 301 of Assessor's Map 18-04-11. The following parcels are proposed:

1. Parcel #1 will contain 56.87 acres and is subject to Lane County jurisdiction because it is outside the urban growth boundary of the Eugene/Springfield Metropolitan Plan. The northern portion of this parcel was recently rezoned to a Marginal Land classification [Ordinance No. PA 1021, adopted June 3, 1992 (PA 0221-92)]. The southern portion of the proposed parcel is zoned E-40/RCP.
2. Parcel #2 will contain 56.88 acres and is also outside the urban growth boundary. Like Parcel #1, the northern portion was rezoned to a ML classification through adoption of Ordinance No. PA 1021 and the southern portion is zoned E-40/RCP.
3. Parcel #3 will contain 99.71 acres and encompasses that portion of the property that is within the urban growth boundary and in the city limits of Eugene. This portion of the property is zoned RA/PD.

The primary purpose of this partition is to create two legal parcels that are outside the city limits and urban growth boundary. Because of the current status of the property, a third parcel comprising land within the city is also being created.

B. Legal Lot Status

The property involved in this partition was originally described in a deed from C. D. Johnson and Frankie S. Johnson to Joe Maughan and Lillian W. Maughan, executed on October 16, 1942 (Book 403, Page 559, Lane County Deed Records). Joe and Lillian W. Maughan in turn conveyed the property to Breeden Bros. on May 2, 1962 (Reel 194, Instrument # 69289, Lane County Deed Records). The configuration of the property involved in this partition remains unchanged from that described in the 1942 deed, except that the northern portion of the property has been platted as Somerset Hills VIII (File 73, Slides 78-80, Lane County Plat Records).

The 1942 deed conveying the property from the Johnsons to the Maughans was executed at a time when Lane County had no land division regulations. Therefore, that deed created a legal lot. The property is unchanged from that described in

1942, except for the area that is part of a duly approved subdivision. Therefore, the property that is included in this partition application remains a legal lot as that term is defined in LC 16.090.

C. Land Division Criteria

Lane Code 13.050 sets forth the general requirements and standards for preliminary partition approval. The following information is provided to address each of the standards listed in that section of the Lane Code.

LC 13.050(1): All divisions shall conform with the Comprehensive Plan for Lane County and any applicable City Comprehensive Plan.

Two comprehensive plans are applicable to this partition: (1) the Lane County Rural Comprehensive Plan for that portion outside the urban growth boundary; and (2) the Eugene-Springfield Metropolitan Area General Plan for that portion inside the urban growth boundary and city limits of Eugene.

Two land use designations are applied to the portion of the property outside the urban growth boundary. The northern portion of the property outside the city is designated marginal land as a result of the adoption of Ordinance No. PA 1021, while the southern portion of the property is designated agricultural land and zoned E-40. It might be noted that the documentation submitted to justify a marginal land designation on the northern portion of the property actually showed that the marginal land designation was justified on the entire tract outside the city limits. However, that designation was limited to the northern portion at the owners' request to allay concern of residents to the south about the extent of development possible on the subject property. The combination of zoning applied and the proposed partition will allow the establishment of one dwelling each on proposed Parcels #1 and #2. * * *

Policy #14 of the Goal Three Element of the Rural Comprehensive Plan recognizes that land may be designated as marginal land, provided it meets the requirements of ORS 197.247 and certain designated policies in the comprehensive plan. The Planning Commission and Board of Commissioners has determined that the northern portion of this property meets those requirements and designated the land accordingly. The proposed partition merely carries out the intent of that recent plan amendment and rezoning by dividing the part of the property outside the urban growth boundary into two parcels.

The Metropolitan Plan designates the portion of the property included in proposed Parcel #1 for low-density residential land use. The South Hills Study supplements the Metropolitan Plan in this area and further requires that development be reviewed through the planned unit development process. The proposed partition

merely creates a tract containing nearly 100 acres that will be the subject of further review through the planned unit process prior to development occurring. A tract of 100 acres is of sufficient size to allow further urban development, particularly in view of the approvals already granted for prior phases of the Somerset development.

LC 13.050(2): Divisions shall comply with all specifications of the applicable zoning requirements in Lane Code.

The E-40 zoning applied to Parcels #1 and #2 requires a minimum parcel size of 40 acres, while the ML Marginal Land classification requires a minimum parcel size of 20 acres. Both of the proposed parcels exceed those minimum area requirements, containing 56.87 and 56.88 acres respectively. Residences on the proposed parcels will be sited on that portion zoned ML. The dimensions of the parcels are such that all setback and other property development standards of the ML zone can be met.

Proposed Parcel #3 is zoned RA/PD by the City of Eugene. The minimum parcel size in the RA zone is 4,500 square feet which the proposed parcel clearly exceeds. However, as noted above, development of Parcel #3 is subject to review through the planned unit development process which will separately ensure compliance with all applicable city zoning regulations.

LC 13.050(3): Relation to adjoining Road System.

This criterion calls for the continuation of major and secondary roads existing in adjoining subdivisions or partitions when a partition is approved. Access to the proposed Parcels #1 and #2 is provided by means of an easement extending from the termination of Timberline Drive through Parcel #1. Plans previously approved by the City of Eugene for future phases of the Somerset Hills development anticipate that Timberline Drive will be extended as development occurs. The easement through Parcel #1 will gradually be replaced by public right-of-way as future dedications occur. The exact alignment of the extension of Timberline Drive is subject to review and approval by the City of Eugene through the planned unit development process. Extension of Timberline Drive outside the urban growth boundary through Parcels #1 and #2 is not required to serve any other properties.

LC 13.050(4): Redevelopment Plan.

This standard allows the county to require a redevelopment plan when large parcels are created that may be subject to further division in the future. Proposed Parcel #3 contains nearly 100 acres and, due to size and location within the city limits, will obviously be subject to future development proposals. Both the zoning applied to the property and the South Hills Study require that future development be reviewed

2
SEE
MAP

through the planned unit development process. In view of that requirement, there is no need to provide a redevelopment plan for proposed Parcel #3.

The combination of ML and E-40 zoning applied to proposed Parcels #1 and #2 will not allow further division of those parcels in the future. Therefore, a redevelopment plan is also not needed for Parcels #1 and #2.

LC 13.050(5): Access.

This standard requires that lots or parcels have verifiable access by means of a street or easement. It also establishes certain minimum requirements for access. The proposed partition conforms with this standard as evidenced by the following:

1. Proposed parcel #3 has direct access to a public street in the form of Timberline Drive. The parcel's frontage on that street exceeds the requirements of LC 13.050(5)(a)(i). The street provides actual physical access to Parcel #3.

2. Access to proposed Parcels #1 and #2 will be provided by a 30-foot easement extending from Timberline Drive to these parcels. The route of the easement follows an existing gravel drive. As noted above, this easement will gradually be supplanted by a full public street as future phases of the Somerset Hills development are platted and improved. The easement will serve only two lots, thereby satisfying LC 13.050(5)(c)(i). The width of the proposed easement also exceeds the minimum width specified in the Lane Code. A copy of the easement (unrecorded as yet) is attached).

LC 13.050(6): Control Strip.

There is no need to require a control strip at this time because none of the purposes specified in LC 13.050(6)(a) through (e) are applicable. The City of Eugene may decide at some future time that a control strip is necessary when the ultimate extension of Timberline Drive has been reached; however, that possibility is not a factor in this partition application.

LC 13.050(7): Utility and Watercourse Easements.

The access easement for Parcels #1 and #2 will include provision for installation of utilities. No other utility easements are required to serve either the subject property or adjoining lands. There are no drainageways or channels on the property that require a watercourse easement.

LC 13.050(8): Pedestrian and Bicycle Ways.

This standard allows the county to require pedestrian or bicycle ways be dedicated when necessary for public convenience or safety, or when designated on an adopted master bicycle plan. There are no designated bicycle ways shown on any adopted master plan that would affect this property. Consideration of either pedestrian or bicycle ways is not relevant to proposed Parcels #1 and #2. If pedestrian or bicycle ways are to be required in conjunction with proposed Parcel #3, those facilities would appropriately be addressed at the time of planned unit development approval when there are specific development plans for the property.

LC 13.050(9): Dangerous Areas.

None of the factors specified in this section such as unstable subsurface conditions, floodplain, inundation or erosion, and similar conditions are found on the subject property. Therefore, this standard is not applicable.

LC 13.050(10): Grading, Excavation and Clearings

This standard provides for limitations on grading and clearing for either road or development purposes if there is a finding that such grading or clearing presents a real threat of pollution, contamination, silting of water bodies or water supplies, erosion and slide damage, or alteration of natural drainage patterns in the area. The subject property consists of a stable hillside with occasional rock outcroppings. The existing gravel access road has not shown any indication of the problems identified under this standard. The dimensions of the property are such that the placement of a dwelling on Lots #1 and #2 will not result in silting of water bodies or other threats to adjoining properties.

LC 13.050(11): Land for Public Purposes

No portions of the subject property are identified in any adopted capital improvement program for acquisition by a public agency. Therefore, the period of delay authorized under this criterion is not applicable.

LC 13.050(12): Sewerage Facilities

Development on proposed Parcel #3 will be served by sanitary sewers extended from the existing Somerset Hills development. One residence each is planned for proposed Parcels #1 and #2. Those residences will be served by individual sewage disposal systems.

LC 13.050(13): Water Supply

Development on proposed Parcel #3 will be served by a public water supply system (EWEB). Residences on Parcels #1 and #2 will be served by individual wells.

LC 13.050(14): Additional Cluster Subdivision Requirements

This partition involves the creation of three large parcels and does not result in a cluster subdivision; consequently, this standard is not applicable.