IN THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, OREGON

ORDINANCE PA 945	)	IN THE MATTER OF ADOPTING AN AMENDMENT TO THE RURAL COMPREHENSIVE PLAN TO CHANGE THE PLAN DESIGNATION FROM "FOREST" TO "MARGINAL LAND" AND TO REZONE FROM "F-2/IMPACTED FOREST LAND" TO ML/MARGINAL LAND FOR TAX LOT 600, MAP 16-55-22 (FILE #PA 1802-87; JAMES R. DRURY), AND ADOPTING A SAVINGS AND SEVERABILITY CLAUSE.

WHEREAS, the Board of County Commissioners of Lane County, through enactment of Ordinance PA 884, has adopted Land Use designations and zoning for lands within the jurisdiction of the Lane County Rural Comprehensive Plan; and

WHEREAS, a procedure exists in Lane Code Chapter 16.400, as adopted by Ordinances I-84 and II-84, for amending land use designations within the jurisdiction of the Lane County Rural Comprehensive Plan, and for concurrent rezoning to maintain compliance with such amended designations; and

WHEREAS, an application has been received for the amendment of the Rural Comprehensive Plan from "Forest" to "Marginal Land" with concurrent rezoning from "F-2/Impacted Forest Land" to "ML/Marginal Land" for tax lot 600, map 16-55-22; and

WHEREAS, the Lane County Planning Commission, in a regular meeting and public hearing of November, 1987, voted four in favor and one not in favor of the above-cited application, and these matters have been reported to the Board; and

WHEREAS, evidence exists within the record indicating that the application meets applicable requirements, including the requirements of Lane Code 16.400 and LC 16.252, and the requirements of state and local law; and

WHEREAS, the Board of County Commissioners has conducted public hearings and is now ready to take action; NOW

THEREFORE, BE IT ORDERED that the Board of County Commissioners Ordain as follows:

1. As identified on Exhibit 'A' attached hereto, the Rural Comprehensive Plan (Plot #629) for Lane County is Amended from a designation of "Forest" to a designation of "Marginal Lands".

2. As identified on Exhibit 'B' attached hereto, the rural zoning designation is changed from "F-2/Impacted Forest Land" to "Marginal Lands."

FURTHER, although not a part of this Ordinance, the Board of County Commissioners adopt Findings as set forth in Exhibit 'C' attached, in support of this action.

The prior designation and zone repealed by this Ordinance remain in full force and effect to authorize prosecution of persons in violation thereof prior to the effective date of this Ordinance.

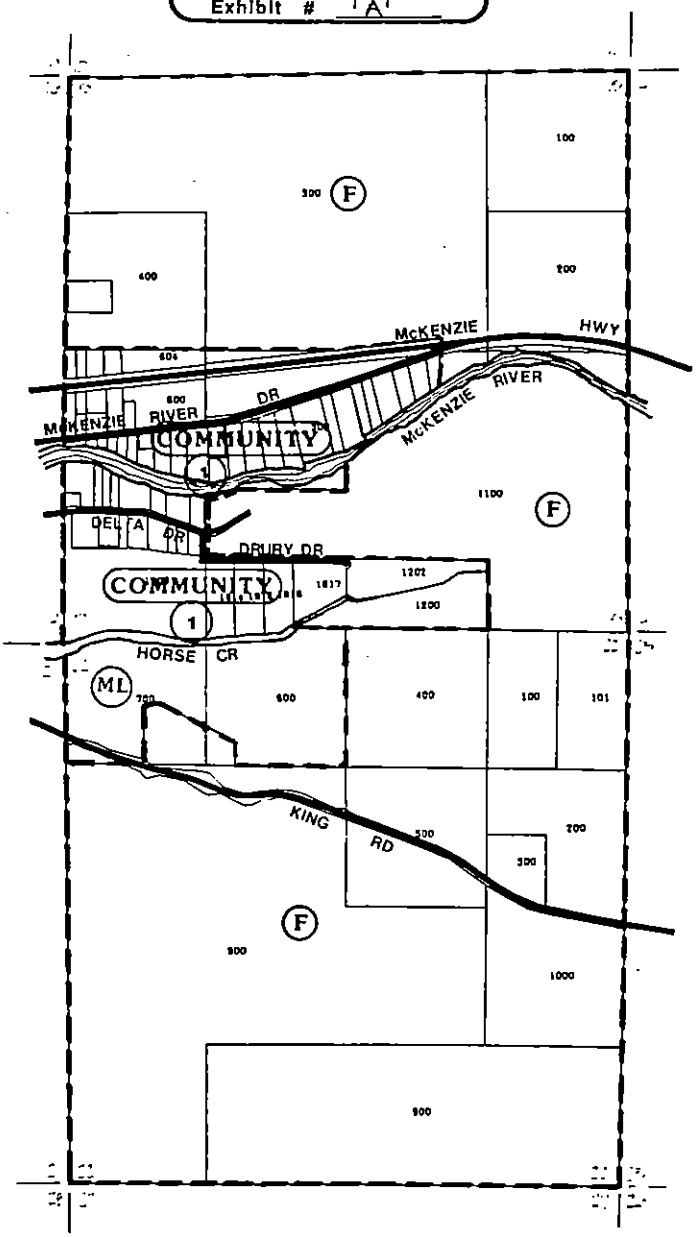
If any section, subsection, sentence, clause, phrase, or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not effect the validity of the remaining portions hereof.

ENACTED this 16th day of December, 1987.

APPROVED AS TO FORM
Date 11/24/87 Lane County
OFFICE OF LEGAL COUNSEL

Ellie Drumm
Chairperson, Lane County Board of Commissioners

File # ORD PA 945
Exhibit # 'A'



lane county

OFFICAL PLAN MAP

PLOT# 629

Twnshp Range Section
16 55 15 / 16 55 22 ( )

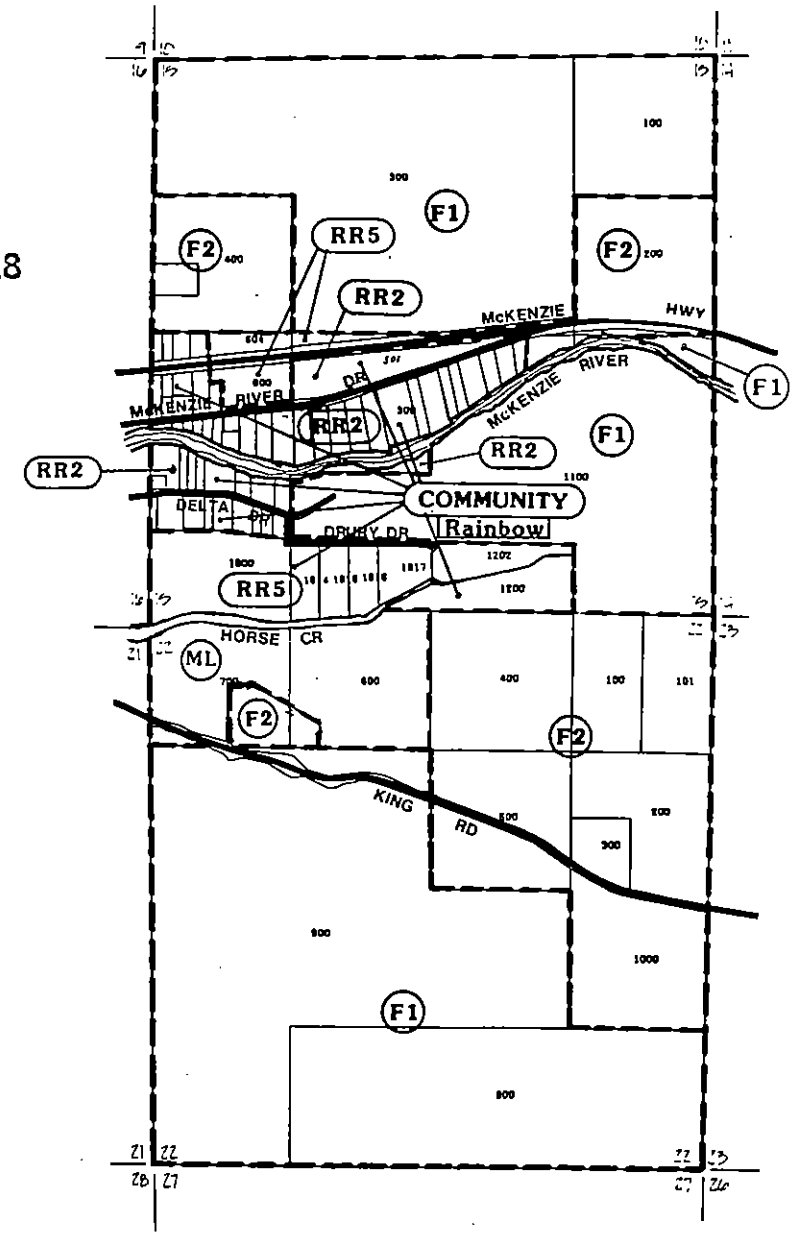
ORIGINAL ORD. # PA 884 DATE 2/29/1984 FILE #

REVISION # 1 ORD. # DATE 3/14/86 FILE #

File # ORV PA 945
Exhibit # 'B'

628

630



0 1000 2000 3000 4000
SCALE IN FEET
NORTH

lane county

OFFICIAL ZONING MAP

PLOT# 629

Twnshp Range Section
16 55 15 / 16 55 22 ( )

ORIGINAL ORD. # PA 884 DATE 2/29/1984 FILE #

REVISION # 1 ORD. # PA 911 DATE 3/14/86 FILE #

File # DRV PA 945
Exhibit # 1 C 1

JAMES R. DRURY LANE COUNTY FILE NO. PA 1802-87

PLAN AMENDMENT/ZONE CHANGE

FINDINGS -FACTS RELIED UPON

1. The property subject to this request is identified as tax lot 600, Lane County Assessor's Map 16-55-22, Exhibit 'I', hereinafter referred to as 'the property'. The property is located about 400 feet north of King Road (County Road), off an existing graveled easement road, about one mile south of the McKenzie Highway.

2. The property is 36.67 acres and developed with a mobile home, accessory structures and improvements. The property is generally square in configuration with Horse Creek located on the north property line. Taylor Creek runs through the southern portion in addition to other localized streams that bisect the property. A majority of the property consists of grassy lowland and cobbly gravel bars, the result of historic stream meandering. Existing improvemetns are located on a small elevated terrace surrounded on three sides by stream channels and lowlands, depicted on Exhibit 'B'.

3. The property receives police protection from the Oregon State Police and Lane County Sheriff. The property is adjacent but currently outside the McKenzie Rural Fire Protection District. The applicant has received a favorable response from the fire district for inclusion within the district for fire protection, and indicated on record pursuit of annexation to the fire district. Power is available from Lane Electric Cooperative. Water and sewerage are proposed to be provided on-site. Access is provided by a private easement to King Road.

4. The property is bordered by developed parcels north of Horse Creek zoned RR-5 and within the designated community of Rainbow. The remaining surrounding area is generally undeveloped and consists of a 40 acre parcel developed with one dwelling to the east zoned F-2, utilized for limited cattle grazing, grassy lowland to the west zoned ML, one undeveloped 7 acre parcel and a narrow 8 acre strip of U.S. Forest Service land are located south and zoned F-2 and F-1 respectively. Zoning plot #629, Exhibit 'J'.

5. The property is designated Forest Lands by the Rural Comprehensive Plan and is zoned F-2 Impacted Forest Land.

6. The applicant's affidavit, Exhibit 'A', indicates the property was purchased in 1948, with wildlife grazing as the primary use since that date. Approximately 3500 fir trees were planted about 1948, with approximately 25 surviving to date. The affidavit indicates the property is not part of or has been managed as a farm or forest operation that produced $20,000 in annual gross farm income or capable of producing an average of $10,000 in annual income over the growth cycle as part of a forest operation. The applicant's evidence meets the income standard of the Marginal Lands requirement.

7. A detailed soil survey of the property was conducted by Brian Rabe of Cascade Earth Sciences, Ltd., Exhibit 'C', who concluded about 62% was appropriately classified as Fluvents, with 74% of the property within agriculture capability classes V-VIII. The soil survey found evidence of a water table between 2 feet and 4 feet, with significant amounts and depths of sands and gravels characteristic of a Fluvent soil type. These factors support the dominant vegetation identified by the report as consisting of grasses, ferns, skunk cabbage, horsetail rushes, elderberry, willow, alder and ash.

8. The soil survey indicates 9.36 acres (26%) consists of Jimbo series soil. SCS soil maps, Exhibit 'E', and interpretation sheets , Exhibit 'F', and McArdle USDA Bulletin 201 indicate Jimbo soil as having a capability of 172 cubic feet per acre per year (1610 cubic feet per year) or an average of 43.9 cubic feet per acre per year. This figure excludes 4.14 acres of Ochrepts and Umbrepts type soil indicated by SCS as being too variable to determine a site index without an on-site investigation. An arbitrarily high site index of 216 was assigned to this unit for purposes of applying the forest soils/capability test. This method determined the property was capable of producing 68.3 cubic feet per acre per year.

9. An evaluation of the applicant's soils information, Exhibit 'C', was made by Kathi Wiederhold, Lane Council of Governments planner on contract with Lane County as a soils specialist. That report, Exhibit 'L', confirmed the applicant's detailed on-site soil survey findings that the property is dominately Fluvents soil, and meets both the agricultural soils test and forest soils test required by ORS 197.247, to designate the property Marginal Lands.

10. The Rural Comprehensive Plan (RCP) was acknowledged and adopted by LCDC in September 1984. The RCP, Goal 3 - Policy 14, allows lands may be designated as Marginal Land upon conformance with the requirements of ORS 197.247 and Lane County General Policies, Goal 5, Flora and Fauna policies 11 and 12.

The RCP acknowledged by LCDC utilized Douglas fir as the species standard of merchantable timber for purposes of applying for Goal 4 and the subsequent interpretation of marginal lands requirements. Evidence provided by the applicant indicates wooded areas of the property are composed predominately of various hardwood species, and not capable of producing 85 cubic feet of merchantable timber per acre per year.

The property is located within critical deer and Elk winter range, Exhibit 'H'/ The Oregon Department of Fish and Wildlife has recommended an overall residential density of 16 dwellings per mile radius. Lane County Rural Addressing maps indicate the proposed addition of one dwelling to the property will not exceed this standard. The applicant proposes to "cluster" or keep improvements limited to the existing developed area and not alter the use of lowland areas as a means of mitigating potential conflicts with big game.

11. The Plan Amendment involves only a graphic change to the Plan Diagram and is considered a minor amendment.

12. The subject amendment request is necessary to implement the adopted policies of the Rural Comprehensive Plan, and is appropriately considered as an error to the Plan due to evaluation of site specific soil information not performed during development of the Plan.

SUMMARY/CONCLUSION.

The amendment request is consistent with State Marginal Lands requirements of ORS 197.247 and applicable County policies. The amendment is consistent with the unamended portions of the Rural Comprehensive Plan.

AFFIDAVIT OF JAMES R. DRURY

STATE OF OREGON)
) ss.
County of Lane)

I, JAMES R. DRURY, being first duly sworn, say as follows:

I am one of the owners of that certain parcel of land located in or near the rural community of Rainbow, Oregon, more specifically described as Map and Tax Lot No. 16-55-22-600. I make this Affidavit in support of Application for Zone Change from F-2 to ML.

My wife and I and my brother and his wife purchased this property in or about 1948. The primary use of this property since that date has been as grazing land for various wild animals who may inhabit it.

This property was part of the Taylor Homestead, which was homesteaded in and about 1900. This homestead was abandoned in and about 1919 due to its lack of income-producing capabilities.

Shortly after we purchased the property in 1948, my brother and I planted approximately 3,500 fir trees on the property. Of those trees which we planted, there remain only approximately 25 which have lived.

The only other use of the property has been as a homesite which was placed upon the property approximately one year ago.

The property is not part of any farm or forest operation. The property has not been managed between January 1, 1978, and January 1, 1983, as part of a farming operation that has produced $20,000 or more in annual gross income or as part of a forest operation capable of producing an average over the growth cycle of $10,000 in annual gross income.

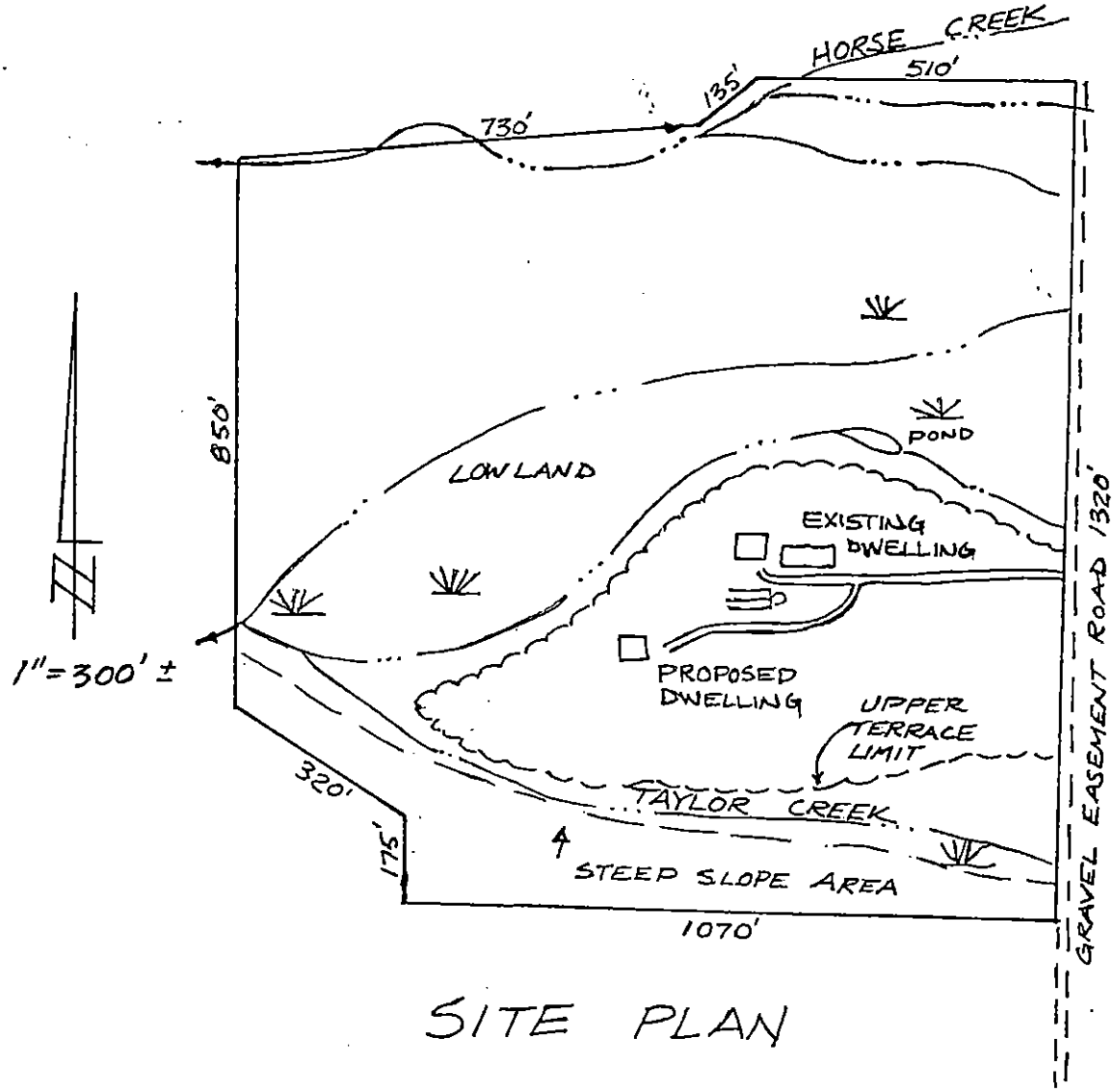
James R. Drury

SUBSCRIBED AND SWORN to before me this 12th day of February, 1987.

Notary Public for Oregon
My Commission Expires: 9-24-89

File # PA 18028-87
Exhibit # 5

EXHIBIT 'A'



SITE PLAN

DRURY PROPERTY
55671 E. KING RD.
McKENZIE BRIDGE, OR.
MAP 16-55-22 TAXLOT 600

File # PA 1802-97
Exhibit # 6

EXHIBIT 'B'
PA 1802-97

Cascade Earth Sciences, Ltd.
L T D.
3425 Spicer Rd.
Albany, OR 97321
(503) 926-7737
P.O. Box 137
Corbett, OR 97019
(503) 695-5760
P.O. Box 1514
LaGrande, OR 97850
(503) 963-7758

July 20, 1987

Mr. Harry A. Taylor
25119 Lamb Road
Elmira, Oregon 97437

Re: James R. and Robert Drury
55671 E. King Road
McKenzie Bridge, Oregon 97413
T16S R55E Sec. 22

Dear Harry;

On July 2, 1987, after our initial walk-over of the above referenced property, I proceeded to gather detailed information about the soils, concentrating on that portion mapped by the SCS as Haflinger-Jimbo Complex, 0-5 percent slopes, map unit (51B). The purpose of my detailed survey was to determine what soils existed based on a more intense survey (scale 1:3,600), compared to what was described and mapped by the SCS survey (scale 1:20,000). This survey was conducted to aid in the determination of the suitability of this site for commercial agricultural and forestry purposes. The following report describes my methodology, findings, and my conclusions.

METHODOLGY

I initially walked over the property with an aerial photo that you provided with the property boundaries marked on it. The photo was recent enough to correlate well with features on the ground. At this time I noted topographic (relief) and

File # PA 1807-87
Exhibit # 7

EXHIBIT 'C'
PA 1807-87

vegetative features to help me determine representative locations for soil test pits. I then had Bob Drury excavate five pits with his backhoe (see attached map, Figure 1, for locations).

The general relief of the property is represented by Figures 2 and 3. From north to south, the site is dominated by a low, generally flat to slightly undulating flood plain/low terrace along and between the creeks, moving up a short, steep escarpment to a generally flat and level terrace. Continuing southward, there is another creek at the base of a fairly steep, north facing, timbered slope. The property ends a short distance upslope from the toe.

Soils vary with respect to five basic soil forming factors:

1. Parent material - the geologic materials from which the soil developes.
2. Climate - particularly the annual fluctuations in temperature and moisture.
3. Topography (relief) - the position and orientation of the landscape.
4. Organisms - plants and animals, etc.
5. Time - on a geologic scale.

Soils are described and delineated based on a combination of similarities and differences within these five factors. These

descriptions and delineations were developed in accordance with Soil Taxonomy and the Soil Survey Manual.

FINDINGS

Pits Nos. 1 and 2 are representative of the surrounding undulating relief. Pit No. 1 is located on top of a ridge and Pit No. 2 is located in the adjoining swale to the south (see Figures 2 and 3). The landscape position is typical of a low terrace or high flood plan (stream). The vegetation is dominantly ferns, miscellaneous grasses (orchard grass, velvet grass, and others), and forbs (lupine, daisy, hypericum perforatum, and others). Also present are elderberry, willow, and young alder and ash. There are few small and very few large evergreens.

Pit Nos. 3 and 4 are representative of the generally level (flat) relief present between the creeks located to the north and south. Pit No. 4 is located about ten meters south of the western end of a wooded area along the creek to the north. Like Pit Nos. 1 and 2, the landscape position is low terrace or high flood plain. The dominant vegetation is miscellaneous grasses, with some sedges and ferns. There are also some small alder and willow.

Pit No. 5 is representative of the marshy wooded areas dominating the eastern side of the property between the creeks. The relief is generally level (flat) with a few small elevated microsites mostly toward the eastern property line (gravel

road). The landscape position is low terrace and/or high flood plain. The dominant vegetation is hardwoods (primarily maple, with some alder and ash). Some evergreens are included, primarily white fir and cedar, and are found mostly on the scattered small elevated microsites. The understory is dominated by miscellaneous grasses, sedges, ferns, skunk cabbage, and horsetail rushes.

In general, the soils were fairly similar, with silt loam to loamy sand textured surface horizons to a depth of seven to 21 inches, over loamy sands and sands to a depth of 29 to 60 inches. Coarse fragments in the form of gravels and cobbles ranged from ten to 30 percent and began at a depth of between 25 and 60 inches.

Groundwater appeared in all pits except Pit No. 1. The free water surface was measured at between 38 (Pit No. 5) and 51 (Pit No. 4) inches. Mottling was only found in two pits. Pit No. 2 was gleyed below 51 inches (10 YR 4-5/1) and mottled from 38 to 51 inches. Pit No. 5 was gleyed below 32 inches and mottled to within eight inches of the surface. The lack of mottles in Pit Nos. 3 and 4 is likely due to free lateral movement of groundwater through the saturated zone, thus preventing the development of anoxic conditions.

The surface horizons are generally dark brown (10 YR 3/3) and very dark grayish browns (10 YR 3/2) (moist) with weak granular

and subangular blocky structure. The coarser textured subsurface horizons range from very weak subangular blocky to structureless and single grained, with colors ranging from dark brown (10 YR 3/3), brown (10 YR 3/4) and dark yellowish brown (10 YR 3/4) to dark grayish brown (10 YR 4/2) (the minral color of the sand).

CONCLUSIONS

Based on a comparison of my observations, summarized above, with the Soil Interpretation Records for Lane County Area, Oregon (green sheets), it is my conclusion that the area mapped by the SCS as Map Unit 51B (Haflinger-Jimbo complex, 0 to 5 percent slopes), on the above referenced property, is dominantly 48 (Fluvents, nearly level) for the following reasons:

1. These soils lacked the cobbly surface horizons associated with soils designated in the Halfinger series.

2. These soils had water tables dominantly in the 2-4 foot range described for soils designated as Fluvents, in sharp contrast to greater than six feet as described for soils designated as either Halfinger or Jimbo.

The area delineated on Figure 1 as Map Unit 48 (Fluvents, nearly level), contains approximately 20 percent higher, better drained soils as scattered, discontinuous microsites similar to the position represented by Pit No. 1. These can be described as small "islands" (roughly 20-25 feet wide by 30 to 100 feet

File # PA 1802-87
Exhibit # 7e

long) and are regarded as inclusions within the map unit.

As can be seen by comparing Figure 1 with the SCS map, I adjusted the boundary for Map Unit 61 (Jimbo silt loam) to include the entire terrace (see Figure 2). This is merely a fine tuning based on the detail afforded by mapping on a smaller scale. This also explains the expanded area of Map Unit 48 (Fluvents, nearly level) in the southeast corner of the property, which represents a marshy area adjacent to the creek.

Table 1 contains percent and acreage figures for the delineations shown in Figure 1. These were measured and calculated using a planimeter.

Although Figure 1 contains significant deviations from the SCS map, the deviations are justified by the level of detail described in this report.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Brian T. Rabe
Soil Scientist

BTR:gw

encs: Figures
Profile Descriptions
Table

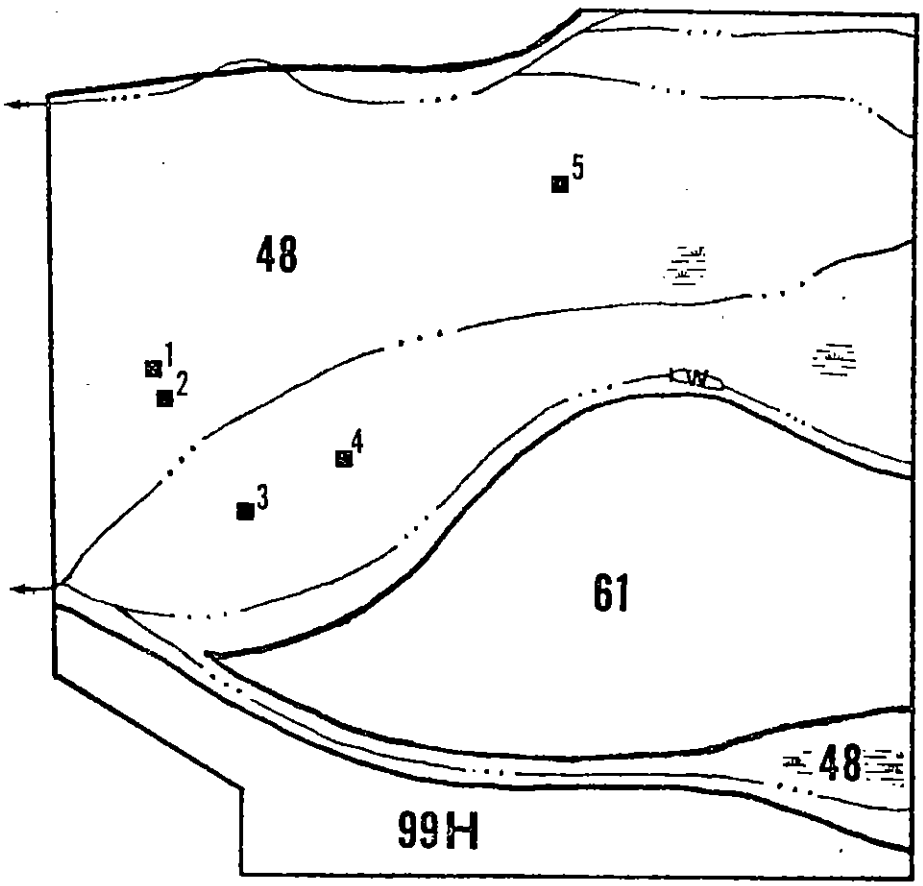
TABLE 1

EXTENT OF SOILS BY PERCENT AND ACREAGE

MAP UNIT	PERCENT	ACREAGE
48	62.5	22.50
61	26.0	9.36
99H	11.5	4.14
	100	36

File # PA 1802-87
Exhibit # 7a

FIGURE 1. SOILS MAP



scale - 1:3,600

Map Units–

48 – Fluvents, nearly level

61 – Jimbo silt loam

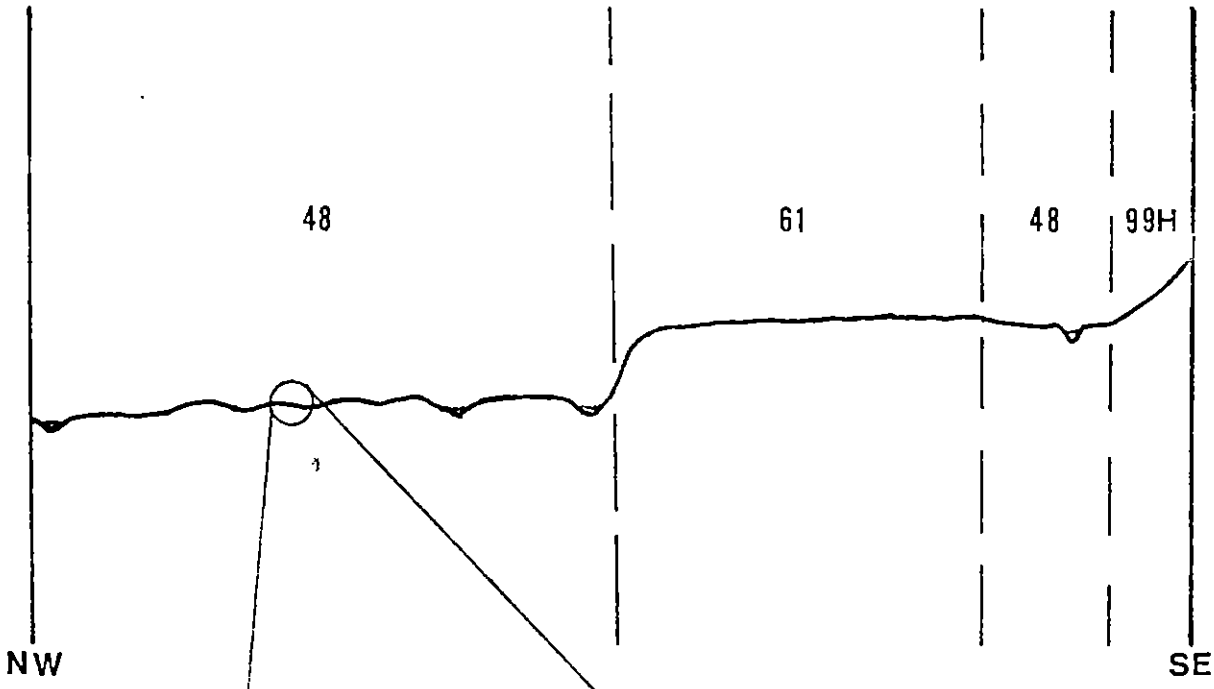
99H – Ochrepts and Umbrepts, very steep

———— – ————

■X – Profile location and number

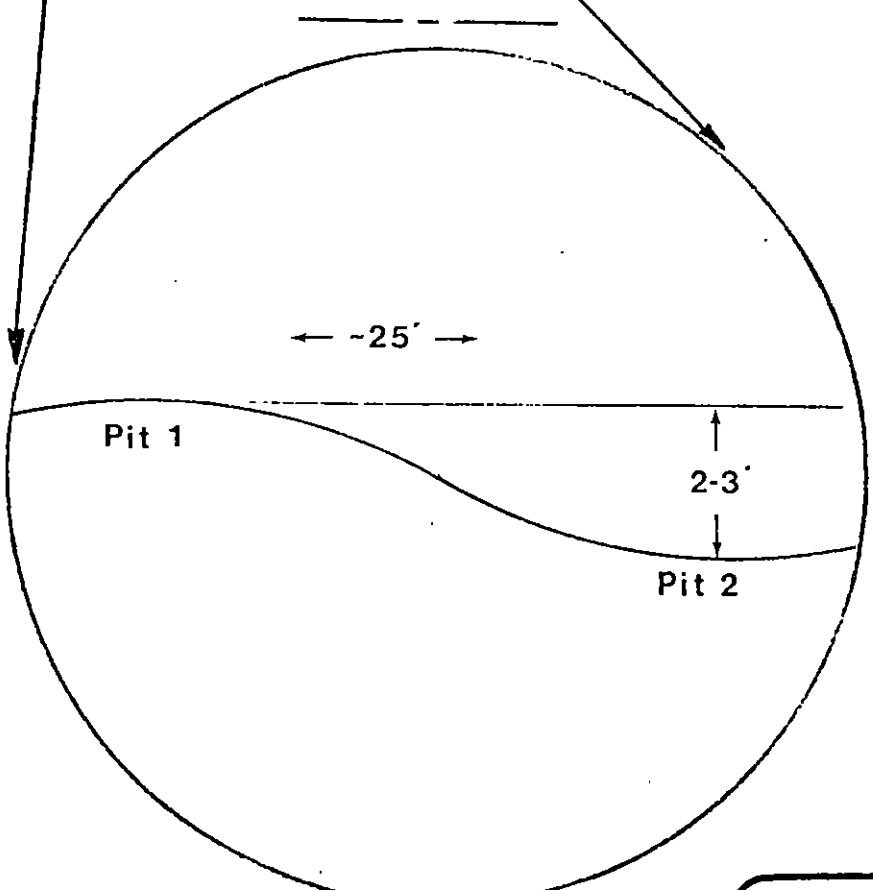
File # PA 1802-87
Exhibit # 7h

Figure 2. NW-SE Diagonal Transect



Vertical scale: exaggerated
Horizontal scale: 1:3,600

Figure 3.
Undulation
Detail



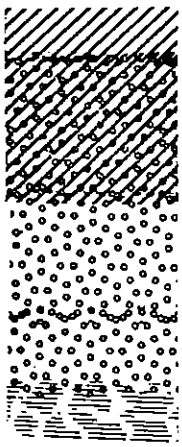
File # PA 1802-87
Exhibit # 7 i

CASCADE EARTH SCIENCES

Profile Description Log

Project - Drury
Location - 55671 E. King Rd., McKenzie Bridge, OR
Date- - 2 Jul 87

PROFILE 1
ELEV. ____

COMMENTS:	SYMBOL	DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	COLOR	MOTTLES	STRUCTURE	CONSISTENCE	COARSE FRGMTS.
		0	A_1	SiL	v dk gr br		wk gr	ns np vfr (m)	
		12	A_2	LS	dk br		wk sbk	ns np vfr (m)	
		24	C	LS	dk br		single grain	ns np lo (m)	
		36	2C	S	min		sg	ns np lo (m)	
		48	3C	CbS	min		sg	ns np lo (m)	30% Cb/Bd
		60							

PROFILE 2
ELEV. ____

COMMENTS:	SYMBOL	DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	COLOR	MOTTLES	STRUCTURE	CONSISTENCE	COARSE FRGMTS.
		0	A	SiL	v dk gr br		wk gr	ns np vfr (m)	
		12	C	LS	dk ylw br		sg	ns np lo (m)	
		24	2C	S	dk ylw br		sg*	ns np fi (m) *	
*slightly cemented		36	$3C_1$	LS	br/ dk br	cfd	sg	ns np lo (m)	
Free H_2O @ 48"		48	$3C_2$	LS	gr/ dk gr				
		60							

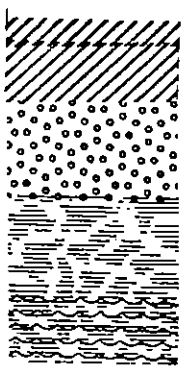
File # PA 1802-87
Exhibit # 7

CASCADE EARTH SCIENCES

Profile Description Log

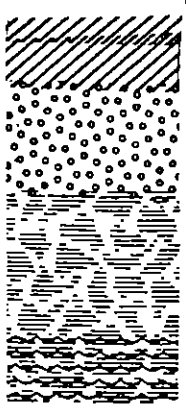
Project - Drury
Location - McKenzie Bridge, OR
Date- - 2 Jul 87

PROFILE 3
ELEV. _____
COMMENTS:

SYMBOL	DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	COLOR	MOTTLES	STRUCTURE	CONSISTENCE	COARSE FRGMTS.
	0	A1	SiL	v dk gr br		wk gr	ss sp vfr(m)	
	12	A2	SL	dk br		wk sbk	ns np vfr(m)	
	24	C	S	dk br		sg	ns np lo(m)	
	36	2C	CbCoS	min		sg	ns np lo(m)	30% Cb/Gr
	48							
	60							

Free H_2O @ 44"

PROFILE 4
ELEV. _____
COMMENTS:

SYMBOL	DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	COLOR	MOTTLES	STRUCTURE	CONSISTENCE	COARSE FRGMTS.
	0	A1	LFS	dk br		wk gr	ns np vfr(m)	
	12	A2	SiL	v dk gr br		mod sbk	ss sp fr(m)	
	24	C	LS	dk br		wk sbk	ns np vfr(m)	
	36	2C	GrCoS	min		sg	ns np lo(m)	30% Gr/Cb
	48							
	60							

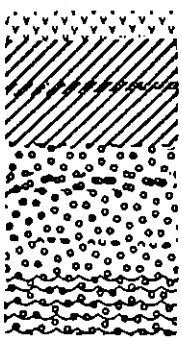
Free H_2O @ 51"

File # PA 180287
Exhibit # 7 K

CASCADE EARTH SCIENCES

Profile Description Log

Project - Drury
Location - McKenzie Bridge, OR
Date- - 2 Jul 87

PROFILE 5 ELEV. ____ COMMENTS:	SYMBOL	DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	COLOR	MOTTLES	STRUCTURE	CONSISTENCE	COARSE FRGMTS.
Free H_2O @ 38"		0 12 24 36 48 60	O A_1 A_2 C_1 C_2 C_3	- SiL FSL S S S	- v dk gr br " " dk gr br (min) min gr	- cfd mmd mmd 	- mod sbk wk sbk sg sg sg	- ss sp vfr (m) ss sp vfr (m) ns np lo (m) ns np lo (m) ns np lo (m)	- 10% Gb

PROFILE ____ ELEV. ____ COMMENTS:	SYMBOL	DEPTH (INCHES)	HORIZON	TEXTURE (USDA)	COLOR	MOTTLES	STRUCTURE	CONSISTENCE	COARSE FRGMTS.
		0 12 24 36 48 60							

File # PA 1802-87
Exhibit # 7 1

Steve Wert, C.P.S.S.
Consulting Soil Scientist
9480 Garden Valley Rd.
Roseburg, Oregon 97470
(503) 673-4148

March 15, 1986

Harry A. Taylor
25119 Lamb Road
Elmira, Oregon 97437

Dear Harry;

On February 11, 1986, I accompanied you to a parcel owned by James R. Drury (16-55-22 Tax Lot 600). We traversed most of the property and bored the soils. No detailed soil survey was made.

Since that time, you have calculated the percent of the parcel that is considered non forest. Your calculation show 54% of the parcel is not capable of producing 85 cu.ft/AC/year. You have requested the soil conditions in the 54%. Using the map you provided, Map 1, my notes and observations indicate the following conditions are within non-timber area:

1. Very gravelly soils with a high water table occur adjacent to Horse Creek.

2. An old log pond is located on a poorly drained terrace below the house.

4. Three - four stream channels cut through the area.

5. Adjacent to Taylor Creek are wet silty soils with a water table too high for the production of Douglas Fir.

6. There are poorly drained sandy soils not capable of producing Douglas Fir.

Sincerely;

Steve Wert

SW

File # PA 1802-87
Exhibit # 8

EXHIBIT 'D'

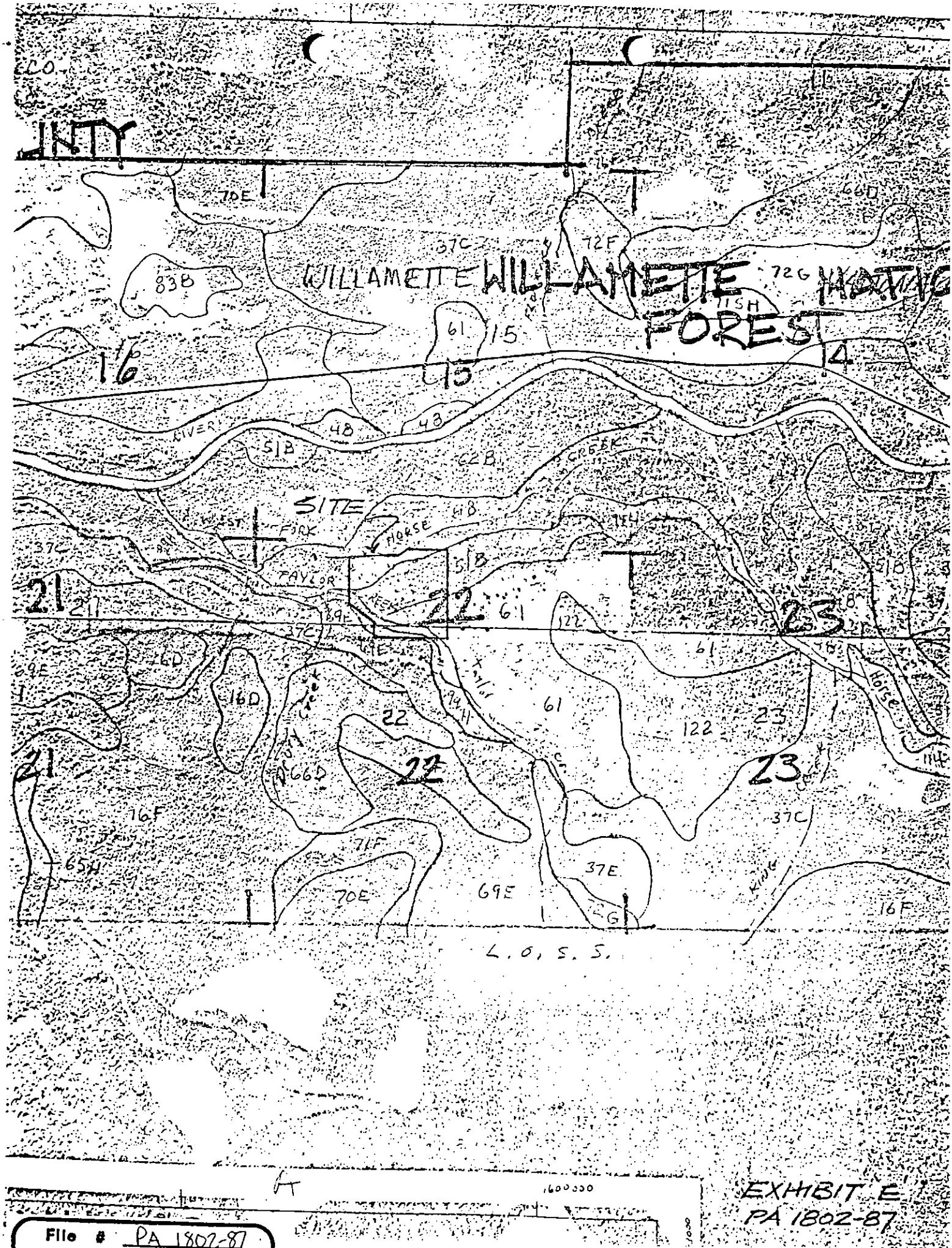


EXHIBIT E
PA 1802-87

File # PA 1802-87
Exhibit # 9

SOIL INTERPRETATIONS RECORD

76A (48) FLUVENTS, NEARLY LEVEL

FLUVENTS CONSISTS OF AREAS OF RECENT ALLUVIUM ON NEARLY LEVEL TO GENTLY UNDULATING, ACTIVE FLOOD PLAINS ADJACENT TO STREAMS AND RIVERS. THIS LAND TYPE CONSISTS OF WELL DRAINED STRATIFIED LOAMY ALLUVIAL MATERIALS UNDERLAIN BY SANDY LOAM, SAND, AND GRAVEL. THESE AREAS MAY BE INCISED BY OVERFLOW CHANNELS AND ARE SUBJECT TO FREQUENT STREAM OVERFLOW. RAPIDLY FLOWING FLOOD WATERS OFTEN CAUSE STREAM BANK E[illegible]ON AND REDEPOSITION OF THESE MATERIALS ELSEWHERE. ELEVATIONS RANGE FROM 50 TO 1700 FEET. MEAN ANNUAL PRECIPITATION RANGES FROM 40 TO [illegible] INCHES. THE MEAN ANNUAL TEMPERATURE IS 48 TO 52 DEGREES F. THE FROST-FREE PERIOD IS 140 TO 210 DAYS.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHTO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-60	TOO VARIABLE TO RATE									

DEPTH (IN.)	CLAY (PCT)	MOIST BULK DENSITY (G/CM3)	PERMEABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	EROSION FACTORS K	T	WIND EROD. GROUP	ORGANIC MATTER (PCT)	CORROSIVITY STEEL	CONCRETE
0-60	-	-	-	-	-	-	-	-	-	-	-	-	-

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP	POTENTIAL FROST ACTION
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)		
FREQUENT	BRIEF	NOV-MAR	2-4	APPARENT	NOV-APRIL	-	-	>60	-	-	-	A	-

SANITARY FACILITIES

SEPTIC TANK ABSORPTION FIELDS	SEVERE--FLOODS
SEWAGE LAGOON AREAS	SEVERE--FLOODS, SEEPAGE
SANITARY LANDFILL (TRENCH)	SEVERE--SEEPAGE
SANITARY LANDFILL (AREA)	SEVERE--FLOODS, SEEPAGE
DAILY COVER FOR LANDFILL	FAIR--SEEPAGE, TOO SANDY

BUILDING SITE DEVELOPMENT

SHALLOW EXCAVATIONS	SEVERE--FLOODS, CUTBANKS CAVE
DWELLINGS WITHOUT BASEMENTS	SEVERE--FLOODS
DWELLINGS WITH BASEMENTS	SEVERE--FLOODS
SMALL COMMERCIAL BUILDINGS	SEVERE--FLOODS
LOCAL ROADS AND STREETS	SEVERE--FLOODS
LAWNS, LANDSCAPING AND GOLF FAIRWAYS	SEVERE--FLOODS

CONSTRUCTION MATERIAL

ROADFILL	FAIR--AREA RECLAIM
SAND	POOR--EXCESS FINES (Fair below 30 in. in some places
GRAVEL	POOR--EXCESS SAND (Fair below 30 in. in some [illegible]ces)
TOPSOIL	FAIR--THIN LAYER, TOO GRAVELLY IN SOME AREAS

WATER MANAGEMENT

POND RESERVOIR AREA	POOR--SEEPAGE
EMBANKMENTS DIKES AND LEVEES	POOR--SEEPAGE
EXCAVATED PONDS AQUIFER FED	POOR--SEEPAGE, DEEP TO WATER
DRAINAGE	NOT NEEDED
IRRIGATION	FAST INTAKE, FLOODING
TERRACES AND DIVERSIONS	ERODES EASILY
GRASSED WATERWAYS	ERODES EASILY

REGIONAL INTERPRETATIONS

File # PA 1802-87
Exhibit # 10 a

EXHIBIT 'F'
PA 1802-87 1 OF 8

RECREATIONAL DEVELOPMENT

CAMP AREAS	SEVERE--FLOODS	PLAYGROUNDS	SEVERE--FLOODS
PICNIC AREAS	MODERATE--FLOODS	PATHS AND TRAILS	MODERATE--FLOODS

CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

	CAPA-BILITY	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.
	VIw																

WOODLAND SUITABILITY

	ORD SYM	MANAGEMENT PROBLEMS: EROSION HAZARD	EQUIP. LIMIT	SEEDLING MORT'Y.	WINDTH. HAZARD	PLANT COMPET.	POTENTIAL PRODUCTIVITY: COMMON TREES	SITE INDX	TREES TO PLANT
; COMMERCIAL QUANTITIES (CEPT IN LIMITED AREAS. LOODING AND EROSION AZARDS LIMIT UTILIZA-ION.							ALDER ASH COTTONWOOD DOUGLAS-FIR		

WINDBREAKS

SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
NONE							

WILDLIFE HABITAT SUITABILITY

POTENTIAL FOR HABITAT ELEMENTS: GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	POTENTIAL AS HABITAT FOR: OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
V. POOR	POOR	FAIR	GOOD	POOR	GOOD	V. POOR	V. POOR	POOR	FAIR	V. POOR	-

POTENTIAL NATIVE PLANT COMMUNITY (RANGELAND OR FOREST UNDERSTORY VEGETATION)

COMMON PLANT NAME	PLANT SYMBOL (NLSPA)	PERCENTAGE COMPOSITION (DRY WEIGHT)				
POTENTIAL PRODUCTION (LBS./AC. DRY WT): FAVORABLE YEARS						
NORMAL YEARS						
UNFAVORABLE YEARS						

FLUTACTS

File # PA 1802-87
Exhibit # 10 b

SOIL INTERPRETATIONS RECORD

165B (51B) HAFLINGER-JIMBO COMPLEX, 0 TO 5 PERCENT SLOPES
JIMBO PART

THE JIMBO SERIES CONSISTS OF DEEP WELL DRAINED SOILS FORMED IN ALLUVIUM WITH ASH. THEY OCCUR ON STREAM TERRACES IN THE WESTERN CASCADES. SURFACE LAYER IS DARK BROWN SILT LOAM 14 INCHES THICK. THE SUBSOIL IS DARK YELLOWISH BROWN LOA GL 29 INCHES THICK. THE SUBSTRATUM IS VERY COBBLY SAND. ELEVATIONS ARE 650 TO 1500 FEET. MEAN ANNUAL PRECIPITATION 60 80 INCHES. MEAN ANNUAL AIR TEMPERATURE IS 48 TO 50 F. THE FROST-FREE PERIOD IS 130 TO 210 DAYS. PERIOD IS 130 TO 210 DAYS.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHTO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-14	FSL	MH, SM	A-5	0	95-100	80-95	75-85	40-75	50-60	NP-10
14-43	L, FSL	ML	A-5	0	100	95-100	80-100	45-65	40-45	NP-5
43-60	CBV-S	GP, SP	A-1	40-50	45-60	35-55	20-40	0-5	-	NP

DEPTH (IN.)	CLAY (PCT)	MOIST BULK DENSITY (G/CM3)	PERMEABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	EROSION FACTORS K	T	WIND EROD. GROUP	ORGANIC MATTER (PCT)	CORROSIVITY STEEL	CONCRETE
0-14	10-18	0.85-0.95	2.0-6.0	0.20-0.25	5.6-6.0	-	LOW	.28	4	-	3-8	MODERATE	MODERATE
14-43	10-18	0.90-1.20	2.0-6.0	0.20-0.25	5.1-5.5	-	LOW	.32					
43-60	0-5	1.20-1.40	>20.0	0.03-0.05	5.1-5.5	-	LOW	.10					

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP	POTENTIAL FROST ACTION
NONE			26.0			-		>60		-	-	B	-

SANITARY FACILITIES

SEPTIC TANK ABSORPTION FIELDS	SLIGHT
SEWAGE LAGOON AREAS	SEVERE-SEEPAGE
SANITARY LANDFILL (TRENCH)	SEVERE-SEEPAGE
SANITARY LANDFILL (AREA)	SEVERE-SEEPAGE
DAILY COVER FOR LANDFILL	POOR-THIN LAYER

CONSTRUCTION MATERIAL

ROADFILL	GOOD
SAND	PROBABLE
GRAVEL	PROBABLE
TOPSOIL	POOR-AREA RECLAIM

WATER MANAGEMENT

POND RESERVOIR AREA	SEVERE-SEEPAGE
EMBANKMENTS DIKES AND LEVEES	SEVERE-PIPING
EXCAVATED PONDS AQUIFER FED	SEVERE-NO WATER
DRAINAGE	DEEP TO WATER
IRRIGATION	FAVORABLE
TERRACES AND DIVERSIONS	FAVORABLE
GRASSED WATERWAYS	FAVORABLE

BUILDING SITE DEVELOPMENT

SHALLOW EXCAVATIONS	SEVERE-CUTBANKS CAVE
DWELLINGS WITHOUT BASEMENTS	SLIGHT
DWELLINGS WITH BASEMENTS	SLIGHT
SMALL COMMERCIAL BUILDINGS	SLIGHT
LOCAL ROADS AND STREETS	SLIGHT
LAWNS, LANDSCAPING AND GOLF FAIRWAYS	SLIGHT

REGIONAL INTERPRETATIONS

File # PA 1802-87
Exhibit # 10 C

RECREATIONAL DEVELOPMENT

AMP AREAS	SLIGHT	PLAYGROUNDS	MODERATE-SMALL STONES
CNIC AREAS	SLIGHT	PATHS AND TRAILS	SLIGHT

CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

	CAPABILITY	FILBERTS (TONS)		PASTURE (AUM)		SWEET CORN (TONS)		SNAP BEANS (POLE TYPE) (BU)		WHEAT, WINTER (BU)		STRAWBERRIES (CRATES)		GRASS HAY (TONS)	
	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.
	3S	3S	0.8	1.0	6	15		6		330		70		240	2.5	

WOODLAND SUITABILITY

ORD SYM	MANAGEMENT PROBLEMS: EROSION HAZARD	EQUIP. LIMIT	SEEDLING MORT'Y.	WINDTH. HAZARD	PLANT COMPET.	POTENTIAL PRODUCTIVITY: COMMON TREES	SITE INDX	TREES TO PLANT
30	SLIGHT	MODERATE	SLIGHT	SLIGHT	MODERATE	DOUGLAS-FIR WESTERN HEMLOCK	162	DOUGLAS-FIR WESTERN HEMLOCK

WINDBREAKS

SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
NONE							

WILDLIFE HABITAT SUITABILITY

POTENTIAL FOR HABITAT ELEMENTS: GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	POTENTIAL AS HABITAT FOR: OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	V. POOR	V. POOR	GOOD	GOOD	V. POOR	-

POTENTIAL NATIVE PLANT COMMUNITY (RANGELAND OR FOREST UNDERSTORY VEGETATION)

COMMON PLANT NAME	PLANT SYMBOL (NRCS)	PERCENTAGE COMPOSITION (DRY WEIGHT)				
POTENTIAL PRODUCTION (LBS./AC. DRY WT): FAVORABLE YEARS						
NORMAL YEARS						
UNFAVORABLE YEARS						

FOOTNOTES

POTENTIAL POLLUTION TO UNDERGROUND WATER SUPPLY.

File # PA 1802-87
Exhibit # 10d

IL INTERPRETATIONS FOR

3858 (61) JIMBO SILT LOAM

THE JIMBO SERIES CONSISTS OF DEEP WELL DRAINED SOILS FORMED IN ALLUVIUM WITH ASH. THEY OCCUR ON STREAM TERRACES IN THE WESTERN CASCADES. SURFACE LAYER IS DARK BROWN SILT LOAM 14 INCHES THICK. THE SUBSOIL IS DARK YELLOWISH BROWN LOAM[illegible] 29 INCHES THICK. THE SUBSTRATUM IS VERY COBBLY SAND. ELEVATIONS ARE 650 TO 1500 FEET. MEAN ANNUAL PRECIPITATION IS [illegible] 80 INCHES. MEAN ANNUAL AIR TEMPERATURE IS 48 TO 50 F. THE FROST-FREE PERIOD IS 150 TO 210 DAYS. PERIOD IS 130 TO 210 DAYS.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHTO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-14	SIL	ML, SM	A-5	0	55-100	80-95	75-85	40-75	50-60	NP-10
14-43	L, FSL	ML	A-5	0	100	95-100	80-100	45-65	40-45	NP-5
43-60	CBV-S	GP, SP	A-1	40-50	45-60	35-55	20-40	0-5	-	NP

DEPTH (IN.)	CLAY (PCT)	MOIST BULK DENSITY (G/CM3)	PERMEABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	EROSION FACTORS K	EROSION FACTORS T	WIND EROD. GROUP	ORGANIC MATTER (PCT)	CORROSIVITY STEEL	CORROSIVITY CONCRETE
0-14	10-18	0.85-0.95	2.0-6.0	0.20-0.25	5.6-6.0	-	LOW	.28	4	-	3-8	MODERATE	MODERATE
14-43	10-18	0.90-1.20	2.0-6.0	0.20-0.25	5.1-5.5	-	LOW	.32					
43-60	0-5	1.20-1.40	>20.0	0.03-0.05	5.1-5.5	-	LOW	.10					

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP	POTENTIAL FROST ACTION
NONE			>6.0			-		>60		-		B	-

SANITARY FACILITIES

SEPTIC TANK ABSORPTION FIELDS	SLIGHT
SEWAGE LAGOON AREAS	SEVERE-SEEPAGE
SANITARY LANDFILL (TRENCH)	SEVERE-SEEPAGE
SANITARY LANDFILL (AREA)	SEVERE-SEEPAGE
DAILY COVER FOR LANDFILL	POOR-THIN LAYER

CONSTRUCTION MATERIAL

ROADFILL	GOOD
SAND	PROBABLE
GRAVEL	PROBABLE
TOPSOIL	POOR-AREA RECLAIM

BUILDING SITE DEVELOPMENT

SHALLOW EXCAVATIONS	SEVERE-CUTBANKS CAVE
DWELLINGS WITHOUT BASEMENTS	SLIGHT
DWELLINGS WITH BASEMENTS	SLIGHT
SMALL COMMERCIAL BUILDINGS	SLIGHT
LOCAL ROADS AND STREETS	SLIGHT
LAWNS, LANDSCAPING AND GOLF FAIRWAYS	SLIGHT

WATER MANAGEMENT

POND RESERVOIR AREA	SEVERE-SEEPAGE
EMBANKMENTS DIKES AND LEVEES	SEVERE-PIPING
EXCAVATED PONDS AQUIFER FED	SEVERE-NO WATER
DRAINAGE	DEEP TO WATER
IRRIGATION	FAVORABLE
TERRACES AND DIVERSIONS	FAVORABLE
GRASSED WATERWAYS	FAVORABLE

REGIONAL INTERPRETATIONS

File # PA 1802-87
Exhibit # 10e

RECREATIONAL DEVELOPMENT

CAMP AREAS	SLIGHT	PLAYGROUNDS	MODERATE-SMALL STONES
PICNIC AREAS	SLIGHT	PATHS AND TRAILS	SLIGHT

CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

	CAPA-BILITY	FILBERTS (TONS)		PASTURE (AUM)		SWEET CORN (TONS)		SNAP BEANS (CWT)		WHEAT, WINTER (BU)		STRAWBERRIES (CRATES)		ALFALFA HAY (TONS)	
	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.
	1	1	1.1	1.3	10	10		9		330	85			280	6	8

WOODLAND SUITABILITY

ORD SYM	MANAGEMENT PROBLEMS: EROSION HAZARD	EQUIP. LIMIT	SEEDLING MORTY.	WINDTH. HAZARD	PLANT COMPET.	POTENTIAL PRODUCTIVITY: COMMON TREES	SITE INDX	TREES TO PLANT
20	SLIGHT	MODERATE	SLIGHT	SLIGHT	MODERATE	DOUGLAS-FIR WESTERN HEMLOCK	162	DOUGLAS-FIR WESTERN HEMLOCK

WINDBREAKS

SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
NONE							

WILDLIFE HABITAT SUITABILITY

POTENTIAL FOR HABITAT ELEMENTS: GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	POTENTIAL AS HABITAT FOR: RANGELD WILDLF
GOOD	GOOD	GOOD	GOOD	GOOD	GOOD	V. POOR	V. POOR	GOOD	GOOD	V. POOR	-

POTENTIAL NATIVE PLANT COMMUNITY (RANGELAND OR FOREST UNDERSTORY VEGETATION)

COMMON PLANT NAME	PLANT SYMBOL (NRCS)	PERCENTAGE COMPOSITION (DRY WEIGHT)					
POTENTIAL PRODUCTION (LBS./AC. DRY WT):							
FAVORABLE YEARS							
NORMAL YEARS							
UNFAVORABLE YEARS							

FOOTNOTES

1 POTENTIAL POLLUTION TO UNDERGROUND WATER SUPPLY.

File # PA 1802-87
Exhibit # 10 f

SOIL INTERPRETATIONS RECORD

77K (59H) CORBETT AND UNDERETT, VERY STEEP

THESE DEEP, WELL DRAINED SOILS ARE ALONG STREAMS THAT HAVE CUT INTO VALLEY TERRACES AND ON TERRACE FRONTS ABOVE THE FLOOD PLAINS OF MAJOR RIVERS AND STREAMS. THE SOILS FORMED IN STRATIFIED SILTY, LOAMY, OR GRAVELLY ALLUVIUM AND IN SOME WEATHERED BEDROCK OF MIXED ORIGIN. SLOPE IS MAINLY 20 TO 60 PERCENT. AREAS ARE ELONGATED IN SHAPE AND ARE 5 TO 30 ACRES IN SIZE. THE NATIVE VEGETATION IS MAINLY DOUG FIR HEMLOCK, OREGON WHITE OAK, SNOWBERRY, POISON-OAK AND GRASSES. ELEVATION IS 50 TO 1500 FEET. THE MAP IS 40 TO 90 INCHES, THE AVERAGE T I 50 TO 54 DEGREES F., AND THE AVERAGE FROST-FREE PERIOD IS 150 TO 210 DAYS.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHTO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
	TOO VARIABLE TO RATE.			0-30	75-100	70-100	60-95	40-90	20-60	NP-20

DEPTH (IN.)	CLAY (PCT)	MOIST BULK DENSITY (G/CM3)	PERMEABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	EROSION FACTORS K	T	WIND EROD. GROUP	ORGANIC MATTER (PCT)	CORROSIVITY STEEL	CONCRETE
	TOO VARIABLE TO RATE.												

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP	POTENTIAL FROST ACTION
								>20					

SANITARY FACILITIES

SEPTIC TANK ABSORPTION FIELDS	SEVERE--SLOPE
SEWAGE LAGOON AREAS	SEVERE--SLOPE
SANITARY LANDFILL (TRENCH)	SEVERE--SLOPE
SANITARY LANDFILL (AREA)	SEVERE--SLOPE
DAILY COVER FOR LANDFILL	POOR--SLOPE

CONSTRUCTION MATERIAL

ROADFILL	POOR--SLOPE, AREA RECLAIM
SAND	IMPROBABLE--EXCESS FINES
GRAVEL	IMPROBABLE--EXCESS FINES
TOPSOIL	POOR--THIN LAYER, SLOPE

WATER MANAGEMENT

POND RESERVOIR AREA	SEVERE--SLOPE
EMBANKMENTS DIKES AND LEVEES	
EXCAVATED PONDS AQUIFER FED	SEVERE--SLOPE, DEEP TO WATER
DRAINAGE	DEEP TO WATER
IRRIGATION	SEVERE--SLOPE
TERRACES AND DIVERSIONS	SEVERE--SLOPE
GRASSED WATERWAYS	SEVERE--SLOPE

BUILDING SITE DEVELOPMENT

SHALLOW EXCAVATIONS	SEVERE--SLOPE
DWELLINGS WITHOUT BASEMENTS	SEVERE--SLOPE
DWELLINGS WITH BASEMENTS	SEVERE--SLOPE
SMALL COMMERCIAL BUILDINGS	SEVERE--SLOPE
LOCAL ROADS AND STREETS	SEVERE--SLOPE
LAWNS, LANDSCAPING AND GOLF FAIRWAYS	SEVERE--SLOPE

REGIONAL INTERPRETATIONS

File # PA1802-87
Exhibit # 10a

RECREATIONAL DEVELOPMENT

CAMP AREAS	SEVERE--SLOPE	PLAYGROUNDS	SEVERE--SLOPE
PICNIC AREAS	SEVERE--SLOPE	PATHS AND TRAILS	SEVERE--SLOPE

CAPABILITY AND YIELDS PER ACRE OF CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

	CAPABILITY	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.	NIRR	IRR.
	6E-7E																

WOODLAND SUITABILITY

ORD SYM	MANAGEMENT PROBLEMS: EROSION HAZARD	EQUIP. LIMIT	SEEDLING MORTY.	WINDTH. HAZARD	PLANT COMPET.	POTENTIAL PRODUCTIVITY: COMMON TREES	SITE INDX	TREES TO PLANT
-	SEVERE	SEVERE	MODERATE	MODERATE	SEVERE	DOUGLAS-FIR BIGLEAF MAPLE OREGON WHITE OAK RED ALDER	-	

WINDBREAKS

SPECIES	HT	SPECIES	HT	SPECIES	HT	SPECIES	HT
NONE							

WILDLIFE HABITAT SUITABILITY

POTENTIAL FOR HABITAT ELEMENTS: GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	POTENTIAL AS HABITAT FOR: OPENLD WILDLF	WOODLD WILDLF	WETLAND WILDLF	RANGELD WILDLF
V. POOR	POOR	POOR	FAIR	FAIR	FAIR	V. POOR	V. POOR	POOR	FAIR	V. POOR	-

POTENTIAL NATIVE PLANT COMMUNITY (RANGELAND OR FOREST UNDERSTORY VEGETATION)

COMMON PLANT NAME	PLANT SYMBOL (NLSEN)	PERCENTAGE COMPOSITION (BY WEIGHT)				

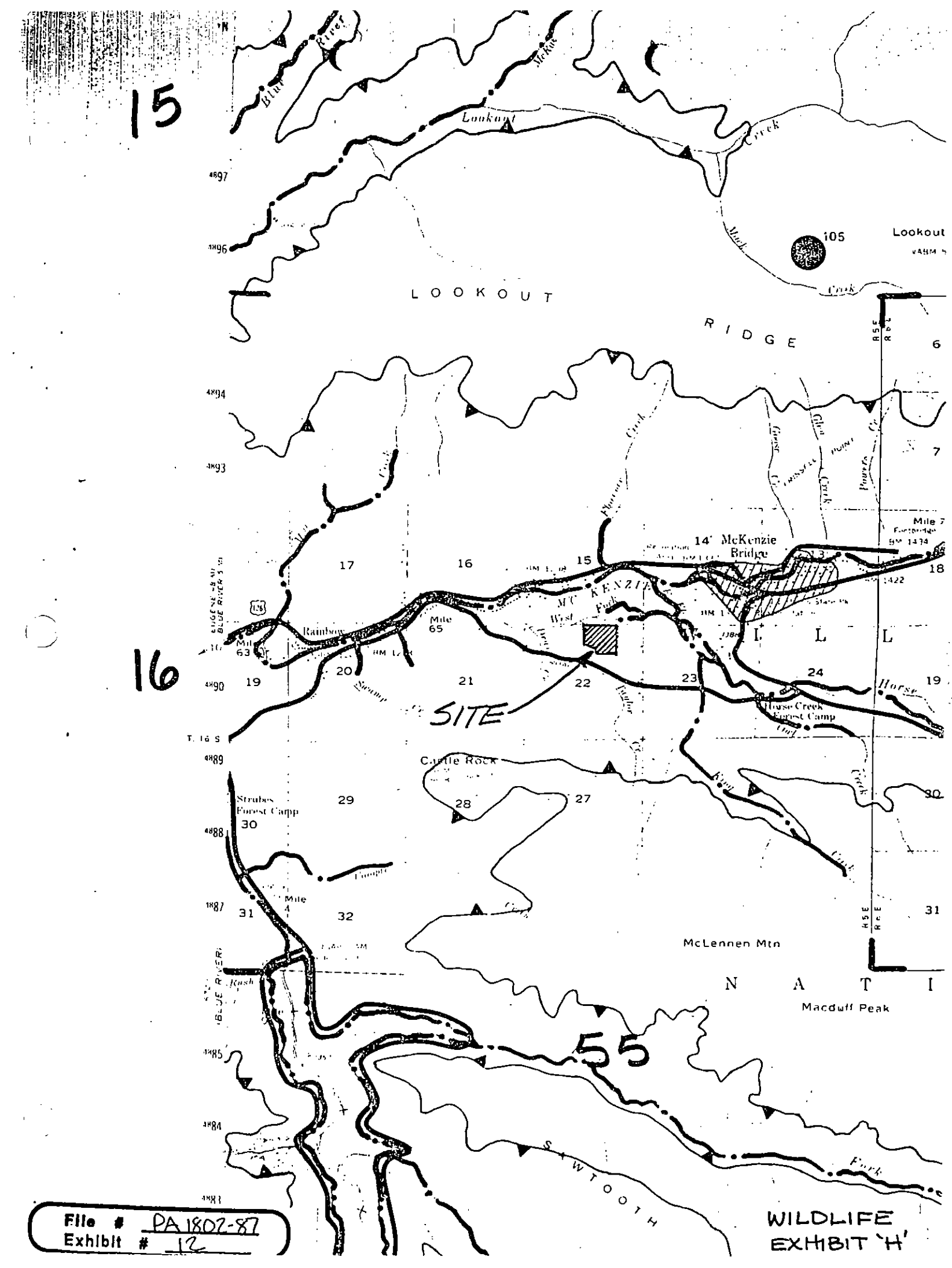
POTENTIAL PRODUCTION (LBS./AC. DRY WT):					
FAVORABLE YEARS					
NORMAL YEARS					
UNFAVORABLE YEARS					

FOOTNOTES

File # PA1807-87
Exhibit # 10 b

File # PA 1807-87
Exhibit # 11

EXHIBIT G
PA 1807-87



File # PA1802-87
Exhibit # 12

WILDLIFE
EXHIBIT 'H'

Section 22 T16S R.5E.W.M.

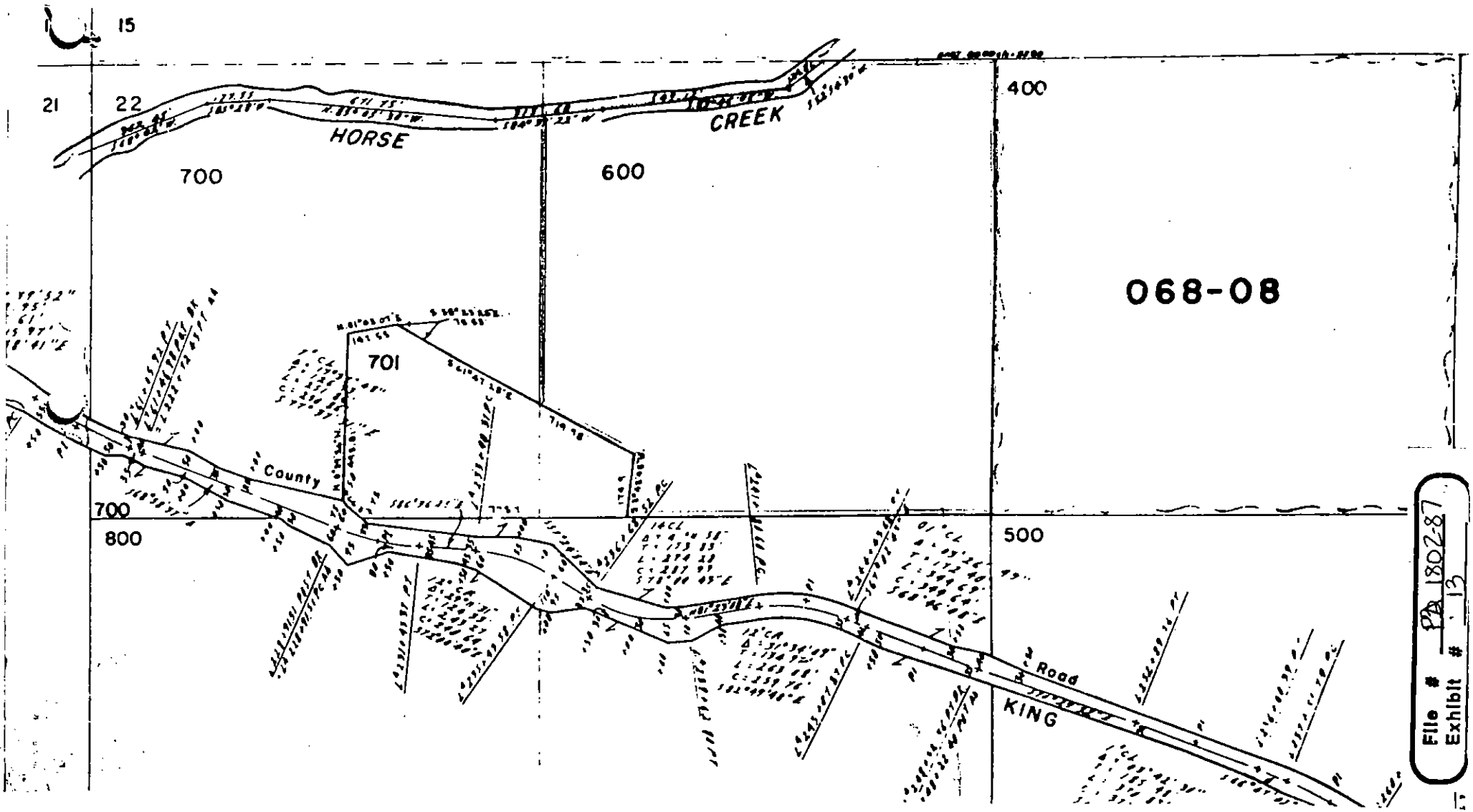
LANE COUNTY

1"=400'

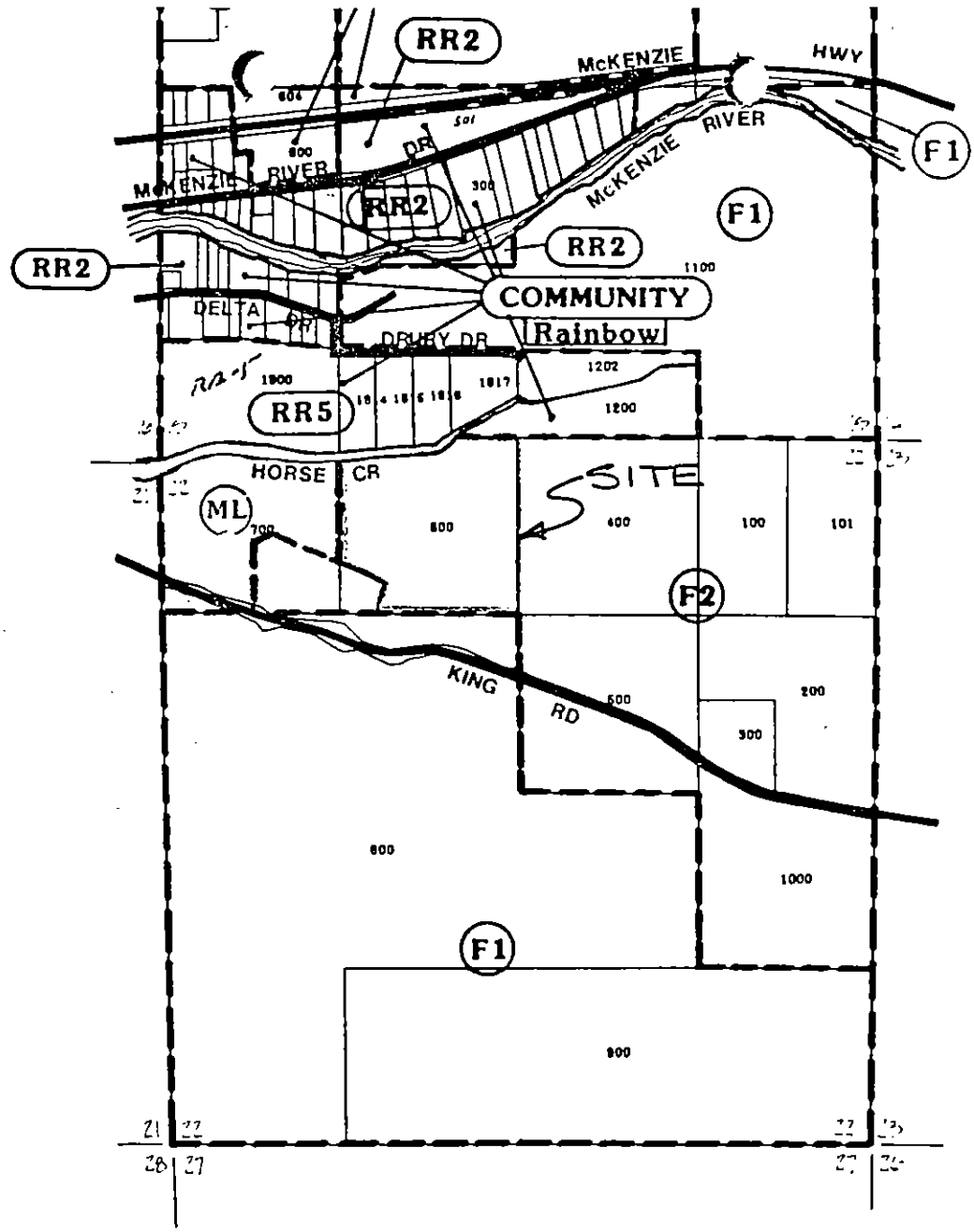
EXHIBIT 'I'

068-08

See Map 16 55 15



File # PA 180287
Exhibit # 13



File # PA 1802-87
Exhibit # 14

EXHIBIT 'J'

lane county

OFFICIAL ZONING MAP

PLOT# 629

Twnshp Range Section
16 55 15 / 16 55 22

ORIGINAL ORD. # PA 884 DATE 2/29/1984 FILE #

ORD. # DATE FILE #

FORESTRY REPORT

INTRODUCTION:

The Drury property identified as tax lot 600, Assessor's Map 16-55-22, was field checked January 15, 1984, and March 26, 1986, to determine the existing and potential forest capability present. This report represents the findings and conclusions of the forest surveys conducted.

GENERAL DESCRIPTION:

This property is approximately 36 acres in size and located about two miles west of McKenzie Bridge at an elevation of slightly less than 1500 feet. Horse Creek enters the property near the northeast corner and runs generally south of the north boundary. Taylor Creek enters the property near the southeast corner and runs westerly through the property at the base of a steep hillside where it merges with other localized streams running through the central portion of the property.

All of the northern two-thirds of this property is typical of old meandered river bottoms, consisting of swamps and cobbled gravel bars. A small river cut terrace lies in the southeast quarter. developed with a homesite and outbuildings.

The larger part of the property is grassy swampland with beaver ponds along stream channels. A narrow strip of compacted river gravel lies between the swampland and Horse Creek. A small herd of Elk have been seen using the area with damage evident on coniferous trees. A small area along the south boundary contains the most productive forestland.

Access is provided by a short private road easement from King Road, County road No 459, that winds through the USFS ownership south of the south boundary.

File # PA 1802-87
Exhibit # 15 a

EXHIBIT 'E'

LAND USE OF SURROUNDING AREA:

North of the subject ownership and Horse Creek lies the so-called Delta area. Like the Drury property, the Delta is the result of eons of channel changing by the McKenzie River and Horse Creek. Virtually all of the private property in the Delta area has been subdivided and developed into recreational and/or permanent homesites. The USFS land in Section 16, immediately northwest of the subject property, is entirely used for recreational homesites. The USFS has designated their lands along King Road and Horse Creek in this area as Scenic Influence I, to maintain aesthetic and scenic characteristics.

A 40 acre parcel to the east lies on higher, better drained land, and is used as a hobby farm for grazing cattle. Land to the west is a continuation of grassy, swampland found on the subject ownership. Only the hillside land to the south (USFS) is being used for exclusive forestry purposes.

ACREAGE OF COVER TYPES:

REFERENCE#	TYPE	MAP SYMBOL	ACREAGE
1	Grass, Brush, Swamp & Ponds	G, br	19.5
2	Hardwoods, Brush, Scattered DF	Hdw, br, D4-	9.9
3	Hardwoods, Brush	Hdw, br	1.3
4	Open young D. Fir poles & trees	D2, 3=	3.5
5	Developments & Horse Creek	⊠ ///	2.3
			36.5

DISCUSSION OF COVER TYPES, CHARACTERISTICS AND POTENTIAL:

FOREST REFERENCE TYPE #1

Grass, Brush, Swamps and Ponds — 19.5 acres

Both hardwoods and conifers will grow on the higher acreas of this type, but growth is irregular and often produces deformed stems. If the tree happens to be on a favorable micro site and attains a reasonable size it is most likely to be subjected to wind throw due to cobbly gravel soil structures, and shallow rooting depths caused by a water table that varies by river level.

Only a narrow band on the north side, composed of compacted gravels at a slightly higher elevation from adjacent land, appears to have some capability. However a substantial lack of stems per acre and a small area of narrow configuation effectively render this portion unsuitable for forest management.

This area primarily consists of 76A Fluvents and 165B Haflinger-Jimbo Complex. 76A is noted as "suitable for planting cottonwood and red alder with Western hemlock, Western red cedar and Douglas fir as possibilities in some areas. (Site Index is too variable to record.) 165B Haflinger indicates "trees are subject to windthrow because of limited rooting depth", and "droughtiness caused by coarse fragments and low water holding capacity in the soil decreases seedling survival".

On-site surveys confirm the SCS limitations noted above are present and severely limit any viable forest production on this type. This area is definately not suited to growing timber commercially.

FOREST REFERENCE TYPE #2

Hardwoods, Brush and Scattered Douglas Fir 9.9 acres

This area would be quite capable of producting a commercial crop of timber if it were not so prone to windthrow due to unstable soil. There is also a problem of removing hardwoods and brush to get sunlight to planted conifers. The hardwoods are not of sufficient quality and quantity to justify a logging operation. The wet unstable slope would not permit tractor clearing, and felling and burning without a herbicide follow up always results in copious resprouting the following spring and a resultant more dense shade. The odds are against commercial forest use.

The soils map indicates 76A Fluvents and 165B Haflinger-Jimbo complex for this area. The limitations noted for reference type #1 are also applicable here. Flooding of the lower terrace next to Horse Creek and riparian setbacks for logging purposes additionally restrain and/or remove this area from forest production.

FOREST REFERENCE TYPE #3

Hardwoods and Brush 1.3 acres

This type exists in a small area in the northeast corner of the property south of Horse Creek. No conifers were visible. The area, like portions of type 2 is not manageable due to riparian restrictions of the Oregon Forest Practices Act. This area is shown as soil type "76A Fluvents, nearly level land (aluvival land), suited to limited timber production from cottonwood and alder stands...site index to variable to record."

FOREST REFERENCE TYPE #4

Open Young Douglas Fir Poles and Trees D23= 3.5 acres

This gentle sloping area along the south boundary is an aquifer and has several swampy areas draining into Taylor Creek. There is an old cut road through the area by which windfalls and larger trees were removed five or more years ago. The soil map shows soil type 77K - Terrace escarpments - Ochrepts and umbrepts with no forest site classification. Portions of this area have a site III capability.

FOREST REFERENCE TYPE #5

Developments and Horse Creek 2.3 acres

The areas developed with a homesite, outbuildings, water, sanitation and power facilties, and Horse Creek (average 40 foot width) are not forestland and are included only to balance the total acreage.

CONCLUSIONS OF COVER TYPES AND FORESTRY POTENTIAL:

The only cover type with a forest potential above 85 cu. ft/ ac/ year is the Type #4 area which measured a middle site class III.

The remainder of the property is unsuitable for the growing and management of commercial forest species due to: 1) the predominence of cobby gravels, 2) numerous creeks, drainage ways and wet areas

that bisect the site, 3) a high water table, 4) damage from elk grazing 5) high potential for windthrow and 6) brush and hardwood competition. The combination of these limitations renders only approximately 3.5 acres that qualifies as land capable of producing 85 cu. ft/ac/year.

References: USDA Bulletin #201 McArdle
SCS Soil Interpretations for Lane County

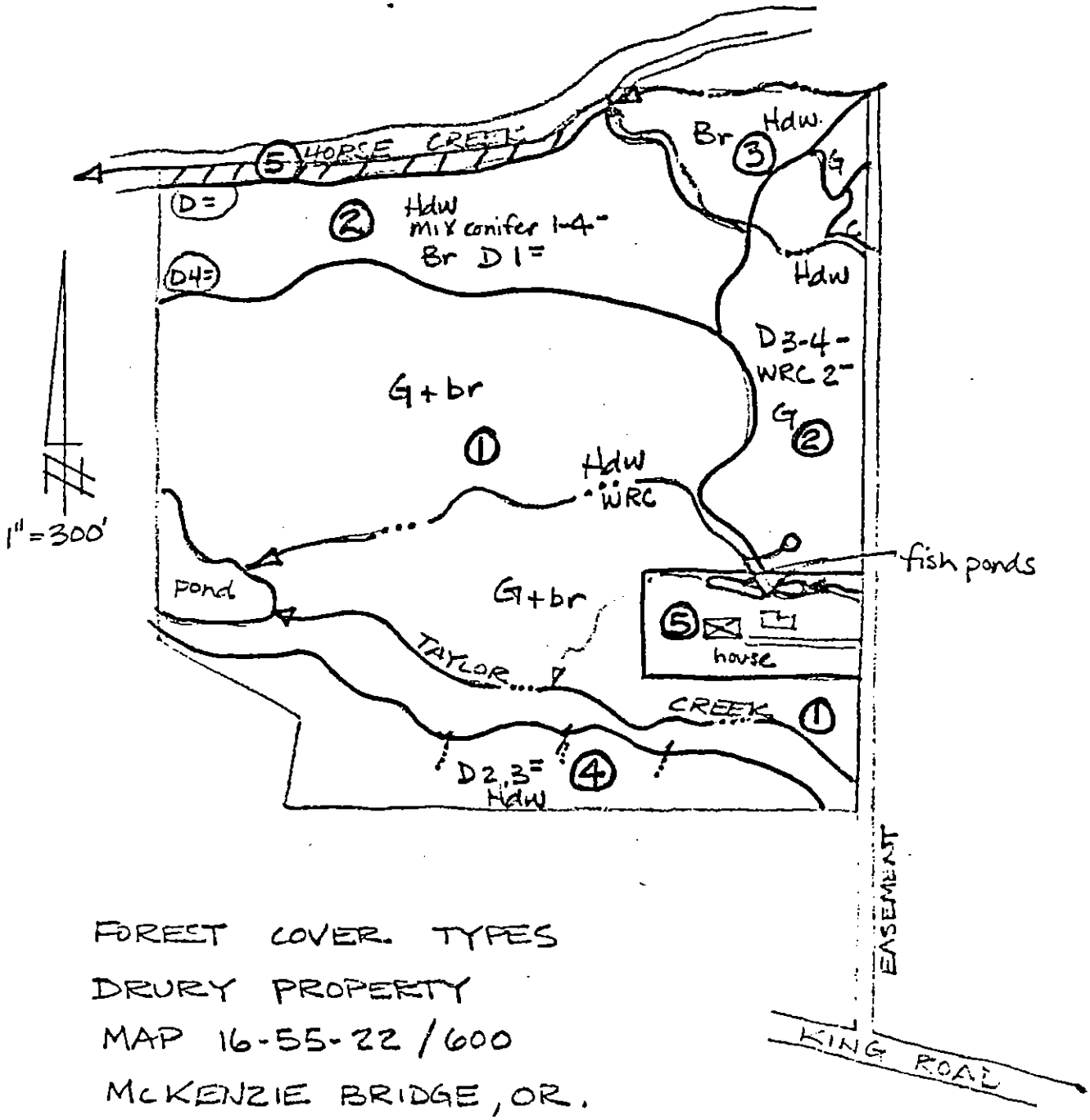
I have site inspected the NE¼ of NW¼ of Sec. 22 T16S R5E WM to determine suitability for commercial forest production. It is my conclusion that TL #600 could not sustain a profitable forestry operation and is not capable of producing an average, over the growth cycle, of $10,000 in annual gross income, and is not capable of producing 85 cubic feet of merchantable timber per acre per year.

DATED this 22nd day of May, 1987.

Dave Burwell

Dave Burwell, Forester
44387 McKenzie Highway
Leaburg, OR 97401

File # PA 1802-87
Exhibit # 15e



FOREST COVER TYPES

DRURY PROPERTY

MAP 16-55-22 / 600

MCKENZIE BRIDGE, OR.

File # PA 1802-87
Exhibit # 15 f

Lane Council of Governments
NORTH PLAZA LEVEL PSB / 125 EAST EIGHTH AVENUE / EUGENE, OREGON 97401 / TELEPHONE (503) 687-4283

MEMORANDUM

August 6, 1987

TO: Sherill Helfrich, Lane County Land Management

FROM: Kathi Wiederhold

SUBJECT: Plan Amendment/Zone Change, file no. 1802-87 (Drury)
Assessor's Map 16-55-22, tax lot 600

This memo is in response to your request that I evaluate the detailed soil survey report dated July 20, 1987 submitted for the above referenced Plan Amendment/Zone Change (marginal lands) application for James Drury. This memo is organized into two parts: review of the detailed soil survey report; and application of the marginal lands tests.

SOIL SURVEY REPORT

Cascade Earth Sciences (CES) conducted a detailed soil survey on-site July 2, 1987. CES refined the more general Soil Conservation Service (SCS) mapping based on an on-site investigation of landforms, topography, vegetation, and soils. The test pits were located in the area mapped by the SCS as 51B Haflinger-Jimbo complex, 0-5% slopes. The CES soil survey report cites data to support the conclusion that the area mapped by the SCS as map unit 51B on the subject property is dominantly map unit 48, Fluvents, nearly level. Map unit 48 is not rated for commercial forestry by the SCS (green sheet) because flooding and erosion hazards limit utilization.

Other refinements to the SCS mapping made by the detailed survey include adjustments to the delineation of map unit 61 (Jimbo silt loam), and to the delineation of map unit 48 (Fluvents, nearly level) in the southeast corner of the subject property.

The following table lists the map symbol, nonirrigated agricultural capability class, Douglas-fir site index, Douglas-fir cubic foot site class (CFSC), and and the acreage of each mapping unit of the detailed CES soil survey on the subject property.

File # PA1802-87
Exhibit # 11e

EXHIBIT 'L'

	Map Symbol	AG Capability Class	DOUG FIR Site Index	DOUG FIR CUBIC FOOT SITE CLASS CFSC	Acreage	%
FLUVENTS	48	VI	not commercial	--	22.50	62.5%
JIMBO SILT LOAM	61	I	162	3	9.36	26.0%
OCHREPTS & UMBREPTS	99H	VI-VII	*	*	4.14	11.5%
	TOTALS				36.0	100%

* Map unit 99H has timber producing capability, but the unit is too variable to determine site index without an on-site investigation. This is the reason that the Soil Interpretation Record for map unit 99H does not list a site index.

Data Sources:

Lane County Soil Interpretation Records for agricultural capability class and site index.

Table 6 "Woodland Management and Productivity" in the Lane County Soil Survey manuscript for site index.

Acreage was computed by CES using a planimeter.

MARGINAL LANDS TESTS

To qualify for Marginal Lands designation, the subject property must meet an income test and either a parcelization test or the soils test. The soils test is the basis for this application. The subject property must meet an agricultural soils test and a forest soils test to qualify for marginal lands designation.

Agricultural Soils Test

"The proposed Marginal Lands is composed predominantly (more than 50%, by area) of soils in capability classes V through VIII in the Agricultural Capability Classification System used by the U. S. Department of Agriculture Soil Conservation Service . . . "

Map Symbol	Capability Class	Acreage	%
48	VI	22.5	62.5%
99H	VI	4.14	11.5%
TOTALS		26.64	74% 74%

The subject property meets the agricultural soils test: over 50% of the soils are in capability classes V-VIII.

File # PA 1807-87
Exhibit # 16 b

Forest Soils Test

"The proposed Marginal Lands . . . is not capable of producing 85 cubic feet of merchantable timber per acre per year."

Map Symbol	Acreage	cubic feet/ acre/year**	cubic feet/ year
61	9.36	172	1609.2
99H	4.14	216*	894.2

TOTAL 2504.12 cu. ft./year
divide by the total acreage 36.67 acres
AVERAGE = 68.3 cu. ft./acre/yr

Notes:

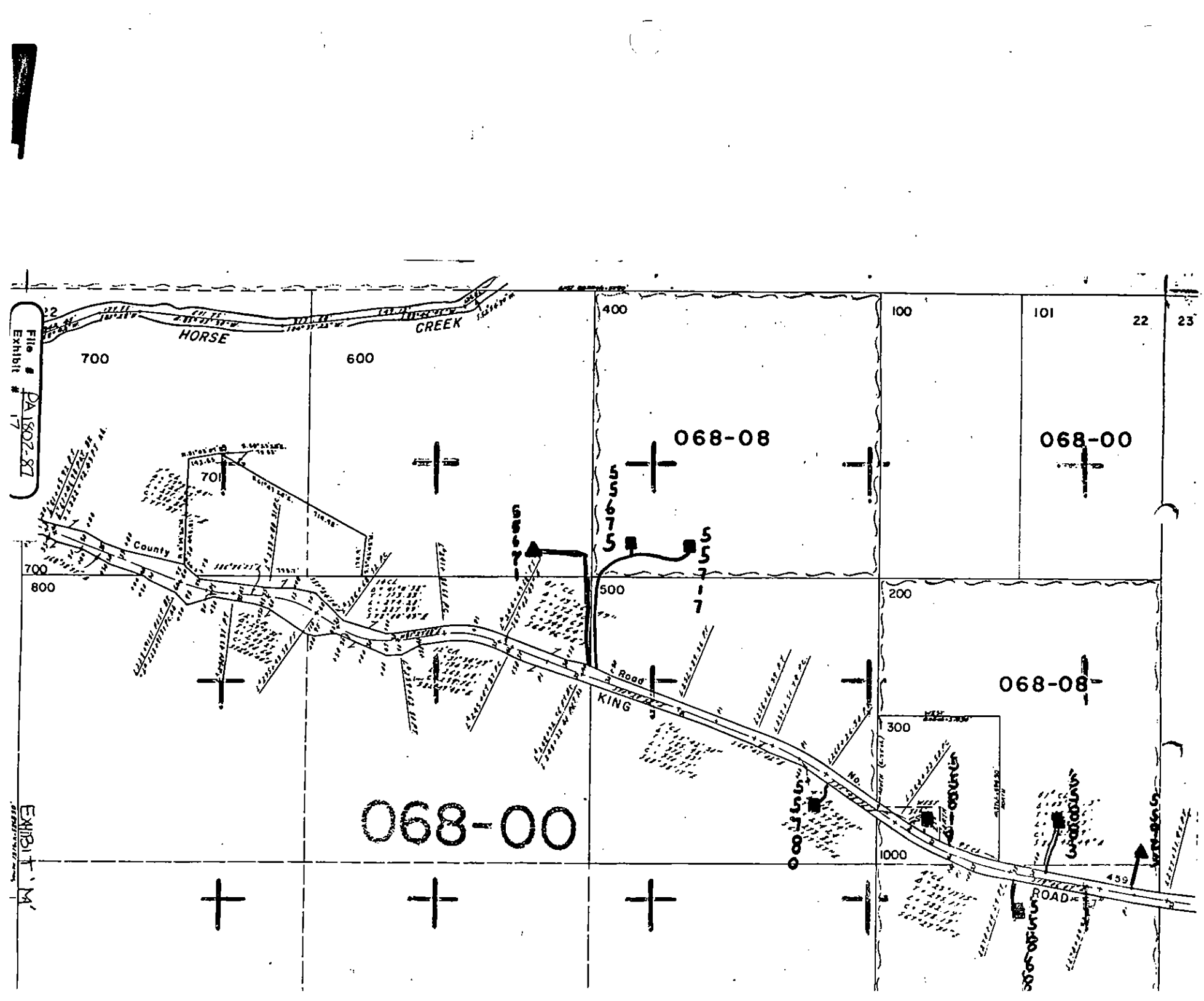
* Map unit 99H has timber producing capability, but the unit is too variable to determine site index without an on-site investigation. This is the reason that the Soil Interpretation Record for map unit 99H does not list a site index. For the purpose of applying the forest soils test, I assumed a site index of 210 for map unit 99H.

** The site index was converted to cubic feet/acre/year using a chart derived from McArdle, R. E., W. H. Wiltmeyer, and Donald Bruce, 1961 (slightly revised). The Yield of Douglas-fir in the Pacific Northwest. USA Technical Bulletin No. 201.

The subject property meets the forest soils test because the property is not capable of producing more than 85 cubic feet of merchantable timber per acre per year. The 68.3 cubic feet/acre/year is probably an overestimate because the 4.14 acres of map unit 99H was assumed, for purposes of applying the forest soils test, to have an extremely high site index. In reality, the actual site index for map unit 99H on the subject property is probably less than 210 and the forest production capability of the subject property is probably less than 68.3 cu. ft./acre/year.

clkwlc12

File # PA 1802-87
Exhibit # 16c


File # PA 1807-87
Exhibit # 17
HORSE
CREEK
700
600
400
100
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22
23
068-08
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701
County
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800
500
200
Road
KING
068-08
300
No.
068-00
1000
459
ROAD
Exhibit 'M'