

#### Using natural systems to take the waste out of water

Phone: 541.926.7737 3511 Pacific Blvd, SW

Fax: 541.967.7619 Albany, OR 97321

August 28, 2006

Mr. Roy Carver III P.O. Box 51505 Eugene, OR 97405

**SUBJECT:** Supplementary Discussion Regarding the Onsite Sewage Treatment on Tax Lot

1900 (52.17 acre +/-parcel) in T18S, R12W, Section 2, North of Florence,

Lane County, Oregon.

Dear Mr. Carver:

Cascade Earth Sciences (CES) was retained by you in 2003 to conduct an assessment of the soils on the above referenced parcel along Highway 101 north of Florence, Oregon. The primary purpose of this assessment was to verify and, where necessary, refine the boundaries of the soils mapped on the parcel as shown in the published soil survey. A secondary purpose was consideration of the potential to develop onsite sewage treatment systems on individual lots.

The site is within the North Florence Dunal Aquifer Area identified in the Onsite Wastewater Treatment System Rules (Oregon Administrative Rules, Chapter 340, Division 71, Section 400 – OAR 340-071-0400) as an area requiring Geographic Area Special Considerations. The specific limitation that is in addition to the standard provisions in the rules is "... the system in combination with all other previously approved systems owned or legally controlled by the applicant will not contribute to the local groundwater more than 58 pounds of nitrate-nitrogen per year per acre owned or controlled by the applicant."

As I understand the potential in the planning regulations, the smallest potential lot size for this site is five acres. The standard (minimum) sizing for onsite sewage treatment systems is 450 gallons per day for up to a four bedroom home. Even if we assume that someone may wish to build a very large house (600 gallons per day for a six bedroom home). Assuming a sand filter treatment system, with a typical nitrate-nitrogen concentration of 30 mg/l and full design flow every day of the year (about half is a typical average), the total nitrate-nitrogen contribution from the system would be less than 55 pounds per year. This is equivalent to less than 11 pounds per acre per year, or less than 20 percent of the limitation in the rules.

If you have any questions or comments, please do not hesitate to contact me directly at (541) 812-6639.

Sincerely,

CASCADE EARTH SCIENCES

Brian T. Rabe, CPSSc, WWS

Senior Soil Scientist

BTR/mab

CES File (1) PN: 2624031

2624031 Letter.doc Doc:



### Using natural systems to take the waste out of water

Phone: 541.926.7737 Fax: 541.967.7619 3511 Pacific Blvd, SW Albany, OR 97321



September 8, 2006

Mr. Roy Carver III P.O. Box 51505 Eugene, OR 97405

**SUBJECT:** Peer Review Process at Cascade Earth Sciences

Dear Mr. Carver:

Cascade Earth Sciences (CES) was retained by you in 2003 to conduct an assessment of the soils on the above referenced parcel along Highway 101 north of Florence, Oregon. CES has an established quality assurance/quality control policy that ensures every written report is reviewed internally by a separate staff member with appropriate qualifications and experience for its technical soundness and editorial presentation. Specifically, in the case of your report dated February 11, 2004, it was prepared by Brian Rabe, a Senior Soil Scientist and Certified Professional Soil Scientist. The internal technical review was conducted by Eli Hamm, a Certified Professional Soil Scientist on our staff.

CES is serious about our quality assurance and quality control process. If you have any questions or comments, please do not hesitate to contact me directly at (541) 812-6639.

Sincerely,

CASCADE EARTH SCIENCES

Steel B. Maloney

President and Principal Hydrologist

SBM/mab

c: CES File (1) PN: 2624031

Doc: 2624031 Review Letter.doc



#### Using natural systems to take the waste out of water

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September 8, 2006

Mr. Roy Carver III P.O. Box 51505 Eugene, OR 97405

SUBJECT: Supplementary Report Regarding the Soils in the Northeast Portion of Tax Lot

1900 (52.17 acre +/-parcel) in T18S, R12W, Section 2, North of Florence,

Lane County, Oregon.

Dear Mr. Carver:

Cascade Earth Sciences (CES) was retained by you in 2003 to conduct an assessment of the soils on the above referenced parcel along Highway 101 north of Florence, Oregon. The primary purpose of this assessment was to verify and, where necessary, refine the boundaries of the soils mapped on the parcel as shown in the published soil survey (Soil Survey of Lane County Area, Oregon – USDA/NRCS, issued September 1987 – hereafter referred to as the "Soil Survey"). In summary, the published Soil Survey information was reviewed and direct observations of soil conditions were made at representative locations across the parcel. CES has determined that there are significant areas on the site that are substantially different than what was published in the Soil Survey.

The original assessment was described in a report dated February 11, 2004. During a public hearing before the Lane County Planning Commission, questions were raised regarding the observed differences in soil conditions that resulted in the revised mapping reflected in our report. It is important to point out that a majority of the differences were based on readily observable characteristics such as slope. The only class IV soils mapped by the NRCS on the property were Map Unit 140, Yaquina fine sand, 0 to 3 percent slopes. Soils on slopes in excess of 3 percent are not Yaquina. The other soils originally mapped on the site were various slope phases of Waldport fine sand. The primary difference between the Waldport soils that were originally mapped on the site and the Netarts soils that were subsequently identified in several locations on the property is the degree of soil development as indicated iron cementation in the subsoil portion of the profile.

Questions were asked at the Planning Commission hearing about the soil under the improved portions in the northeast part of the parcel. After the hearing, you authorized CES to examine this area more closely and prepare a report of our additional findings. One specific question that was raised at the hearing regarded CES' decision to leave the NRCS boundary in tact where direct observation was impractical, specifically under the area used for the hydroponic production system for wasabi. The area in question was substantially modified during the preparation and installation of the wasabi growing facilities. The surface layer containing any significant amount of organic matter including duff, roots, etc. was removed to prevent differential settling in the future following decomposition. The surface was then re-graded to remove irregularities in the original topography and to form the appropriate slopes within and between growing beds for water management. The original grade across the site appears to have ranged from an elevation of 100 feet near the main entrance at the south end of the wasabi growing facilities to an estimated 92 feet along the north property line for a difference of about 8 feet over a distance of about 600 feet. The entire area was covered with one combination or another of geotextile fabric, watertight (impervious) liner, gravel, etc. Based on observations around the edges of the wasabi growing facilities, the natural soil surfaces is three or four feet or more below the finish grade of the beds. Clearly, substantial disturbance of the natural soil conditions was necessary to construct the wasabi growing facilities.

Mr. Roy Carver III Supplementary Soils Assessment September 8, 2006 Page 2

The primary differences between a typical Yaquina soil profile and a typical Waldport soil profile are expressed in the upper 20 to 29 inches. The degree of disturbance that occurred during the preparation and construction of the wasabi growing facilities was not only significant enough to have precluded a current evaluation of the original soils in that portion of the site, it also represents conditions that qualify as "urban land" as defined in the soil survey. This was not addressed during our site-specific analysis. Urban land, as defined in the Lane County soil survey, "consists of areas where the soils are largely covered by concrete, asphalt, buildings, or other impervious surfaces that obscure or alter the soils so that identification is not feasible." The area occupied by the wasabi growing facilities clearly qualifies as urban land. Both Yaquina and Waldport soils are mapped as part of map units that include urban land (Map Unit 133C, Waldport -Urban land complex, 0 to 12 percent slopes; and Map Unit 141, Yaquina-Urban land complex). The Lane County soil survey does not include a land capability class designation for either of these map units. However, as indicated in the more-recent Soil Survey of Lincoln County Area, Oregon (USDA/NRCS, issued July 1997), the urban land component of map unit complexes is assigned a capability class of VIII. Similarly, urban land in the Lincoln County soil survey "consists of areas covered mainly by streets, parking lots, buildings, or other impervious surfaces that obscure or alter soil characteristics so that recognition and interpretation are not feasible." Therefore, it is logical to conclude that the areas underneath the wasabi growing facilities are not class

Figure 1 from the original report has been revised to reflect these changes and Table 1 provides a summary of the revised acreage figures. A total of 10.21 acres of the site are classified as "urban land" (4.28 acres within what was originally mapped as Waldport soils and 5.93 acres within what was originally mapped as Yaquina soils). Only 19 acres, or 36.4 percent, of the parcel is currently occupied by class IV soils. Clearly, the property does not predominantly consist of class I through IV soils.

A review of the characteristics that affect the growth of plants, particularly shore pine, reveals many similarities among the three soil series identified on the site. These characteristics include organic matter (an indicator of inherent fertility) and available water capacity (an indicator of how much was is held for plants between precipitation events). The organic matter content of the surface layer typically ranges between 3 and 6 percent in the Netarts soil, 3 to 8 percent in the Waldport soil, and 0.5 to 2 percent in the Yaquina soil. Most importantly, all three soils have nearly identical and very low available water capacities, ranging from 3 to 5 inches in the Netarts soils, 3 to 4 inches in the Waldport soils, and 3.5 to 5 inches in the Yaquina soils. The primary differences between these soils has to do with the degree development (as indicated by iron cementation) and internal drainage (as indicated by slope and landscape position). The very low available water capacity values for all three of these soils is the primary factor that will affect the potential growth of shore pine or other shallow-rooted plants. Therefore, it is reasonable conclude that all three soils will produce similar growth rates and yields for shore pine and other shallow-rooted plants.

If you have any questions or comments, please do not hesitate to contact me directly at (541) 812-6639.

Sincerely,

CASCADE EARTH/SCIENCES

Brian T. Rabe, CPSSc, WWS Senior Soil Scientist

BTR/mab

c: CES File (1)

PN: 2624031 / Doc:2624031 Letter.doc

BRIAN T. RABE, BS
CERTIFIED PROFESSIONAL
SOIL SCIENTIST

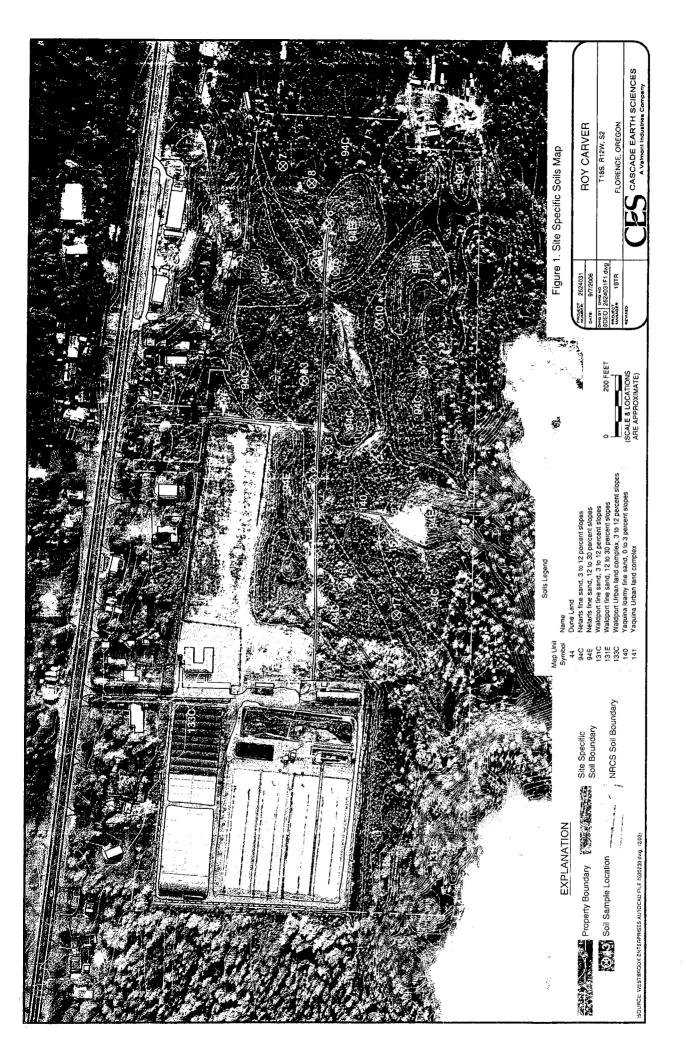
Registered Wastewater Specialist No. EH-W-448430 – Expires 9/30/0

Table 1. Map Unit Acreage and Interpretations

Map		Agricultural <sup>1</sup>	NRCS, 1987		CES, 2004		CES, 2006	
Symbol	Unit Name	Capability Class	Acreage	% of Total	Acreage	% of Total	Acreage	% of Total
44	Dune Land	8	1.145	2%	0.09	0%	0.09	0%
94C	Netarts fine sand, 3 to 12%	6	0.000	0%	14.86	28%	14.86	28%
94E	Netarts fine sand, 12 to 30%	6	0.000	0%	5.03	10%	5.03	10%
131C	Waldport fine sand, 3 to 12%	6	13.703	26%	5.04	10%	0.76	1%
131E	Waldport fine sand, 12 to 30%	7	1.860	4%	2.22	4%	2.22	4%
133C	Waldport-Urban land complex, 3 to 12% (urban land part only)	8	0.000	0%	0.00	0%	4.28	8%
140	Yaquina loamy fine sand, 0 to 3%	4	36.367	69%	24.93	48%	19.00	36%
141	Yaquina-Urban land complex (urban land part only)	8	0.000	0%	0.00	0%	5.93	11%
Total			53.075	100%	52.17	100%	52.17	100%
Percent of Parcel in Class 1 through 3				none		none		none
Percent of Parcel in Class 4				68.5%		47.8%		36.4%
Percent of Parcel in Class 5 through 8				31.5%		52.2%		63.6%

Notes:

<sup>1</sup>Agricultural Capability Classes are from Lane County Soil Ratings for Forestry and Agriculture (Lane County Land Management Division, August 1997), except for the urban land component of the Waldport and Yaquina complexes. Although the urban land component is clearly described in the Soil Survey of Lane County Area, Oregon (USDA/SCS, issued September 1987), it is not classified in that document. However, it is similarly defined and classified in the immediately adjacent Soil Survey of Lincoln County Area, Oregon (USDA/NRCS, issued July 1997).





## EGR & Associates, Inc.

2535B Prairie Road Eugene, Oregon 97402 (541) 688-8322 Fax (541) 688-8087

August 25, 2006

Julia Carver Carver Trust P.O. Box 51505 Eugene, OR 97405

RE:

18-12-02-20 TL 01900

Groundwater

Dear Mr. Carver:

In response to your inquiry regarding groundwater, groundwater supply, and groundwater protection for the above referenced 52 acre property in relation to establishing 5 acre parcels, I have the following observations:

- 1. The North Florence Dunal Aquifer Study was conducted from 1980 through 1982 primarily to determine the impact of on-site sewage disposal on the aquifer. I was the primary investigator on that study.
- 2. As part of that study the amount of water available for water use was determined as well.
- 3. The study determined that nearly 3 dwellings per acre could contribute sewage effluent to the aquifer without exceeding DEQ standards of water quality for Nitrate-Nitrogen (5.0 mg/L), the most conserved of the sewage effluent constituents. At one dwelling per 5 acres the impact on the aquifer of the proposed use would be expected to be negligible.
- 4. On-site sewage treatment and disposal will not have a deleterious impact on the aquifer as modeling and direct measurement on existing conventional systems on the dunal aquifer confirmed in the study.
- 5. Use of recirculating sand filter treatment and pressure distribution disposal fields or trenches will prolong the life of the sewage system and should be strongly considered over conventional septic tank/gravity flow disposal trenches. These systems have the added benefit of reducing nitrate-nitrogen levels relative to conventional systems.
- 6. Observations and modeling indicated that the aquifer will respond with a 3-4 foot variation from seasonal variations (summer to winter) and another 3-4 foot water level fluctuation relative to drought and normal precipitation. Thus a total 6-8 foot variation of water level can be expected overall. Pumping of groundwater was included in the analysis.
- 7. The aquifer, a quite uniform sand, has a permeability of around 400 to 750 gallons pre day per square foot. The storage coefficient approaches 0.3 (dimensionless number). Thus, the aquifer will yield relatively large volumes of water from a

- large reservoir of stored water. Water supply from the dunal aquifer is expected to be plentiful.
- 8. Groundwater is often relatively high in dissolved iron, so water treatment will likely be required to make the water fully useable for those depending upon groundwater. For example, the City of Florence treats its water for iron content before storing and distributing it to their customers.

In summary, there is more water available on this site than would possibly be used by any conceivable development, and the sewage disposal from on-site systems, at the density proposed, will not adversely impact the groundwater aquifer. If I can be of any further assistance in this matter please let me know.

Sincerely,

Ralph Christensen, Senior Geologist,

President, EGR & Associates, Inc.

Lane County Planning Commission c/o Thom Lanfear 125 East 8<sup>th</sup> Avenue Eugene, OR 97401

August 31, 2006

Re: PA 05-6249

Dear Mr. Lanfear and Members of the Commission:

At the August 29 Lane County Planning Commission meeting, the Planning Commission decided to honor my August 15 written request for an opportunity to respond to the new material submitted by Goal One Coalition. My request was based on ORS 197.763(6)(c), which requires that such a written request be accommodated.

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I have now reviewed the Goal One Coalition material. In the Goal One Coalition letter was evidence about the issue of whether Lane County has established a 50 cf/ac/yr threshold for commercial forest land.

This issue was directly addressed by Land Use Board of Appeals in *Palmer v. Lane County*, 44 Or LUBA 334 (2003):

"[T]he original working papers were viewed as supporting information rather than part of the LCRCP itself. The LCRCP states the 'Working Papers [are] to be used to help interpret and understand [LCRCP] approaches but [are] not \* \* \* designed to be adopted as legislative law.' LCRCP 4." *Palmer*, n. 5.

As you can see, this issue is settled. No 50 cf/ac/yr legal standard has been established by Lane County.

Thank you for entering this letter into the record.

Sincerely,
Darald Hell

Darald Heer

88380 Highway 101

Florence, OR 97439

**PO Box 542** 

Creswell OR 97426

August 30, 2006

Darald Heer P. O. Box 542 Creswell, OR 97426

RE: Response to Goal One Submittal PA 05-6249



LAND MANAGEMENT DIVISION http://www.LaneCounty.org/PW\_LMD/

Mr. Heer:

At the August 29 Lane County Planning Commission meeting, the Planning Commission decided to open the record in the Carver proposal (PA 05-6249) to accommodate your request for an opportunity to respond to the new material submitted by Goal One Coalition. I am enclosing a copy of that submittal for your review. Response to the material must be received in my office prior to 5 P.M. September 5, 2006. Please call if you have any questions.

Sincerely,

Thom Lanfear

Associate Planner Land Management Division

(541) 682-4054

(541) 682-3947 (FAX)

The The

Thom.Lanfear@co.lane.or.us

#### **MEMORANDUM**



LAND MANAGEMENT DIVISION

http://www.LaneCountv.org/PW LMD/

**DATE:** August 29, 2006

TO: Lane County Planning Commission

FROM: Thom Lanfear, Associate Planner

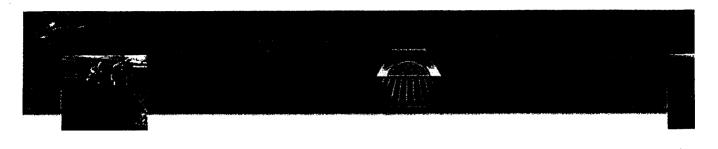
RE: PA 05-6249 Request for a Rural Comprehensive Plan (RCP) diagram amendment from "Forest" to "NonResource," and a zoning map amendment from Impacted Forest Lands (F-2) to Rural Residential (RR-5) for a 52.17 acre site located west of Hwy 101 and north of the City of Florence, pursuant to Lane Code (LC) 16.252 and LC 16.400.

On August 1, 2006, the Planning Commission heard testimony on application PA 05-The record was left open for two weeks for 6249 and closed the public hearing. additional written material to be submitted. That material is attached to this memo for your review and consists of:

- 1. Submittal by the Goal One Coalition; and
- 2. Submittal by Darald Heer.

Mr. Heer has requested that the opportunity to respond to the new material submitted by Goal One Coalition in accordance with ORS 197.763(6)(c) and the materials have been provided to Mr. Heer by mail. Staff recommends that the record be opened for one week (until September 5) to allow the response. The applicant's representative has informed staff that they do not anticipate the need for a rebuttal to the information.

The Planning Commission deliberations on this item are currently scheduled for the September 5, 2006 meeting. If the Planning Commission determines that the record will remain open until September 5 for Mr. Heer's submittal, then it would be appropriate to reschedule the deliberations to the September 19, 2006 Planning Commission meeting.



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• Fax: (301)314-9041

E-Mail: mrabenho@umd.edu

Name: Brian Rabe

Address: 3496 NW Scenic Dr.

City: AlbanyState: OR

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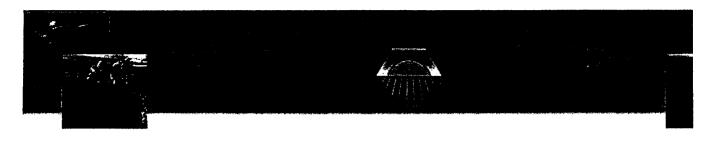
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#### **About the Society**

The Soil Science Society of America (SSSA) is a prominent international headquartered in Madison, Wisconsin. Because of their common interest Society of Agronomy (ASA), and the Crop Science Society of America (C working relationship as well as the same headquarters office staff. Each autonomous, has its own bylaws, and is governed by its own Board of Di members are dedicated to the conservation and wise use of natural resoleted, and fiber crops while maintaining and improving the environment. S tax deductible since the Societies are non-profit, educational organizatior SSSA has continued to evolve, modifying its educational offerings to sup needs of its members. Today, SSSA is seen as a progressive, scientific s needs of its members through publications, recognition and awards, plac certification programs, meetings, and student activities. There is also a so Washington, DC, to give members a voice in government.

As a member, you may subscribe to <u>Society journals</u> at a reduced rate. Y member discounts on <u>books and publications</u>, and on <u>Annual Meeting</u> resubscription to the Societies' monthly newsletter, <u>CSA News</u>, and e-mail included with your membership.

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#### **Mission Statement**

The mission of the Society is: 1) to enhance the sustainability of soils, the society by integrating diverse scientific disciplines and principles in soil so stewardship of soil and natural resources, and 2) to advance the discove profession of soil science through excellence in the acquisition and applic address challenges facing society, in the training and professional developments, and in the education of, and communication to a diverse citizen

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Mary E. Collins (352) 392-1951 mcollins @ soils.org



Rattan Lal (614) 292-9069 lal,1 @ osu.edu



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EII ( ebe



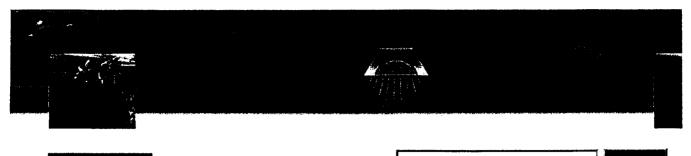
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- Mary E. Collins, SSSA President
- Rattan Lal, SSSA President-Elect
- John L. Havlin, SSSA Past President

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: Aleman Maria et al.



REC'D AUG 2 1 2006

ghway 101

Daralki 88386 H

PUBLIC WORKS DEPARTMENT
LAND MANAGEMENT DIVÍSION
125 EAST 8TH AVENUE
OREGON
EUGENE, OREGON 97401

August 17, 2006

Darald Heer 88380 Highway 101 Florence, OR 97439

RE: Response to Goal One Submittal PA 05-6249



LAND MANAGEMENT DIVISION http://www.LaneCounty.org/PW\_LMD/

Mr. Heer:

I have received your request for the record in the Carver matter PA 05-6249 to be opened to allow you the opportunity to respond to the new material submitted by Goal One Coalition. I am enclosing a copy of that submittal for your review. It will be up to the hearing authority, in this case the Planning Commission, to determine if responses to that material can be entered into the record. If you would like to respond at this time to the submittal, you could send your written response to me and I will bring the issue to the Planning Commission at the meeting scheduled for September 5, 2006. At that meeting the Planning Commission can decide whether the record will be opened to receive the new material.

Sincerely,

Thom Lanfear

Associate Planner

Land Management Division

Than Lh

(541) 682-4054

(541) 682-3947 (FAX)

Thom.Lanfear@co.lane.or.us

LANE CO LAND MIGHT
STEVE SMITH
STORE SMITH

Lane County Planning Commission c/o Thom Lanfear 125 East 8<sup>th</sup> Avenue Eugene, OR 97401

August 15, 2006

Re: PA 05-6249

Dear Mr. Lanfear,

I attended and testified at the Lane County Planning Commission hearing on the Carver application (PA 05-6249) on August 1.

The record was left open for two weeks for Goal One Coalition to provide additional written evidence and testimony. Pursuant to ORS 197.763(6)(c), I request the opportunity to respond to new material submitted by Goal One Coalition or any other persons. <sup>1</sup>

Thank you for your attention to my request.

Darald Heer

Sincerely,

Darald Heer 88380 Highway 101 Florence, OR 97439

PO Box 542

Creswell, OR 97426

"If the hearings authority leaves the record open for additional written evidence, arguments or testimony, the record shall be left open for at least seven days. Any participant may file a written request with the local government for an opportunity to respond to new evidence submitted during the period the record was left open. If such a request is filed, the hearings authority shall reopen the record pursuant to subsection (7) of this section."

<sup>&</sup>lt;sup>1</sup> ORS 197.763(6)(c):

We the undersigned are in serious opposition to this proposal of rezoning forest property to nonresource and from impacted forest to rural residential. The Lane Code 16.252 under criteria states: zoning and rezoning and changes in the requirements of this chapter shall be enacted to achieve the general purpose of this chapter and shall not be contrary to the public interest. We feel this proposal is contrary to public interest.

- 1. This parcel is situated over a water aquifer and the installation of new septic systems would contaminate this water source we depend upon.
- 2. This parcel is within the dunes management zone and helps to prevent sand and bank erosion from coastal wind, rain, and public access.
- 3. This parcel has considerable marked wetlands that needs to be protected to insure existing animal vegetation habitat survives.
- 4. This parcel has limited access that is behind existing residential property and would create a serious blow to the heavy burden traffic that exists on Hwy 101. Hwy 101 has two way traffic with no center turn lanes or wide shoulders to compensate for increased traffic.
- 5. Allowing this parcel to be rezoned would increase property taxes for surrounding residents, and the majority of homes within close proximity were built in the 1950's and 1960's.
- 6. This parcel is outside of the urban growth boundary and there are many Existing residential properties for sale.
- 7. This rezoning is not in compliance with Statewide Planning Goals. Rezoning needs to be within urban growth boundary in order to receive services.

Name	Signature	Address
Darald Heer Dones VN OSDE	Darald He	28380 HWY 101 Florence 28336 HWY. 101 FLORENCE
Sybil Roesch Leta McC	Sylil Roe	6 Heghway 101 Florence
Joseph C. M. S. Market C. M. S. Market C. M.	/ /	20 Huy 101 Florence
Rachael Dd Rachael Dd MUNT: N	Len 88398H	Wy101 Florence OR S& 398 Huy 101 Florence
Kathleer R Heer	- Dathleen	- D Den 88380 Huy 101 Florance

Re: PA 05-6249

Darald Heer 88380 HWY 101 Florence, OR 97439 August 10, 2006

I oppose this land use change being proposed on subject property 18-12-02-20 #1900. I oppose both proposed changes, from forest to nonresource and from impacted forest land (F-2) to rural residential (RR-5). This property is neither within the urban growth boundary nor has access to city services. This property is located behind smaller existing residential properties and has limited access to Hwy 101. Hwy 101 has major traffic problems throughout the year since only having two-way traffic and no turn lanes available. Adding new residential property would only increase this problem. This property is within the dunes management area and acts as a buffer from the constant wind and sand movement that is protecting existing residential properties. Changing the zoning would increase the sand dune erosion problem for existing properties and the dunes themselves. The parcel is situated over a water aquifer that needs to be protected from being contaminated by septic systems if changed to residential zoning and the added drain for drinking water for new residential property would limit the existing residential property owners usage. This property has wet lands with beach and dunes overlay that needs to be protected with forest zoning.

Proposed property rezoning from Forest to Nonresource should not be allowed. This property is and was able to grow trees. Especially since the forest, industry has made dramatic change in their practices of growing and harvesting trees. Nothing is wasted. even stumps are chipped and there is a good price for the bark. Evaluating forest production, one has to consider this. My property backups against this proposed rezoning property. I am sending a few pictures taken August 5, 2006 on my property that clearly shows that marketable trees can be grown and have indeed been here for many years. Included are a few pictures showing the BLM dune tree line, which is the other borderline for this proposed property rezoning. The simple truth is that this proposed rezoning property was logged years ago and the stumps pulled and burned, then the topsoil was pushed around to fill in some low areas and then more was pushed up to create a mound around the outside edge to the property. This mound exists along the back edge of my property as will as others. This was done in order to create the nursery business and the T Bar ranch, instead of replanting a forest the owners chose a different route to make money. With this in mind, it is easy to see how one can try to claim a rezoning from forest to nonresourse. You bring in an expert forester person that states there are small pines on the property that are slow growing and be of little value, then you bring in an expert soil analyst and he states the soil is very marginal that it may not be perfect for forest production. Of course, the experts are paid well for their expertise.

If this rezoning is allowed to go through this would only send a message to Forest owners to log and remove the stumps and spread or remove topsoil, then wait a few years for scrub brush to grow then put in for a rezoning change and bring the experts in to back up

their claim. This whole scenario is all about money, big profits especially in the difference between forestland and residential property. I have never heard of anyone taking residential property and asking for a rezoning for strictly forest and moving his or her house and personal property out. If a property owner decides to change the way money is made from his property and it fails, the county should not be obligated to bail them out with a rezoning change.

Sincerely

Darald Heer



10 2006

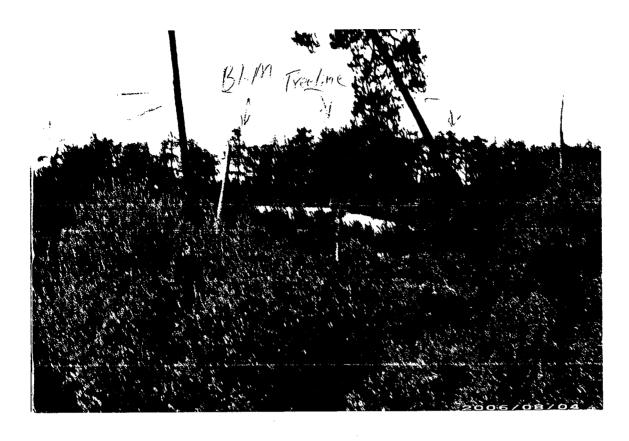
# HEER Property 88380 Huylol Florence, OR

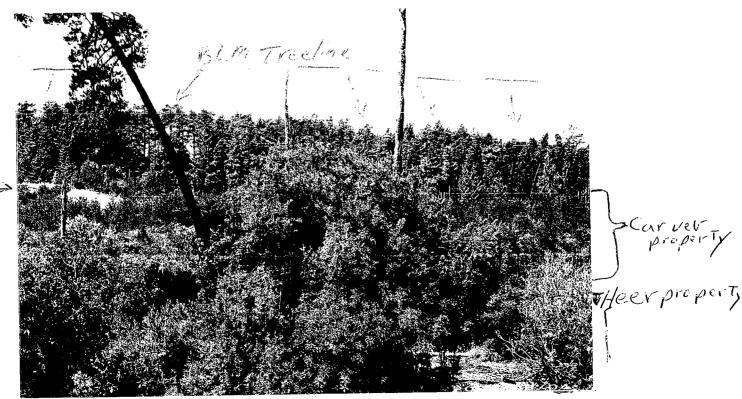
The pictures here are Trees
That are on Heer property
88380 Hwylol, Florence, OR
Droperty joins Carver. Pictures
show marketable timbercan
be grown on Carver property

HEER Property



Re: PA 05-6249





and one >



#### Goal One is Citizen Involvement

Lane County Planning Commission c/o Thom Lanfear 125 East 8<sup>th</sup> Avenue Eugene, OR 97401

August 11, 2006

#### RE: PA 05-6249, Carver nonresource

Dear Members of the Commission:

The Goal One Coalition (Goal One) is a nonprofit organization whose mission is to provide assistance and support to Oregonians in matters affecting their communities. Goal One is appearing in these proceedings at the request of and on behalf of its membership residing in Lane Count. This testimony is presented on behalf of Goal One and its membership; LandWatch Lane County, 642 Charnelton Suite 100, Eugene OR 97401 and LandWatch's membership in Lane County, specifically to include President Robert Emmons, 40093 Little Fall Creek Road, Fall Creek OR 97438; and Jim Hecker, 88864 Archer Lane, Florence OR 97439, as an individual. Mr. Hecker resides near the subject site and would be adversely affected by approval of the proposal.

#### I. Introduction

The proposal would redesignate the 52.17-acre subject property from "Forest" to "Nonresource" and rezone the property from "Impacted Forest Lands" (F-2) to "Rural Residential" (RR-5).

The subject property is identified as 18-12-02-20 TL 1900 and is located west of Highway 101 and north of the Florence, an undetermined distance not far from the urban growth boundary.

Shore pine is the predominant tree species on the property. There are also scattered Douglasfir and red cedar trees. Although no hemlock is "currently" growing on the subject property, hemlocks are found on adjoining properties with the same soils. Notification 95-50843 was filed with the Oregon Department of Forestry in 1995. The notification was for a partial cut with a start date of June 15, 1995 and an end date of December 31, 1995.

NRCS soil mapping shows that 69% of the subject property is Class IV agricultural soils. NRCS soil mapping is shown in Table 1.

TABLE 1: AGRICULTURAL CAPABILITY BASED ON NRCS SOIL MAPPING

Unit	Soil Name	%	Capability Class	
44	Dune land	2	VIII	•
131C	Waldport fine sand	26	VI	
131E	Waldport fine sand	4	VII	
140	Yaquina loamy fine sand	69	IV	

Eugene office: 642 Charnelton Suite 100 · Eugene OR 97401 · 541-484-4448 · Fax 541-431-7078 Lebanon office: 39625 Almen Dr. · Lebanon OR 97355 · 541-258-6074 · Fax 541-258-6810 www.goal1.org

An on-site assessment conducted by Cascade Earth Sciences found the soils on the subject property to be as described in Table 2 below. Tree species listed are as listed in the 1987 Soil Conservation Service Soil Survey of Lane County Area, Oregon (Soil Survey), generally in order of dominance or suitability. WH = western hemlock; SS = Sitka spruce; SP = shore pine; DF = Douglas-fir. Absence of an entry means no published data is available.

TABLE 2: CASCADE EARTH SCIENCES - SOILS & CAPABILITY

Map#	Soil Type	Acres		Productivity pability Class	Sp. Si		<u>Productivit</u> Site Class	
44	Dune land	0.09	0.00	VIIIe	0	-	-	-
94C, E	Netarts <sup>2</sup>	19.89	14.86(C)	VIe	WH	80	-	-
			_5.03(E)	VIe	SS	-	-	-
			38.12		SP	-	-	-
					DF	95	V	58
131C, E	Waldport	7.26	5.04(C)	VIe	SP	92	VI	29
			<u>2.22(E)</u>	VIIe	SS	-	-	-
			13.92		DF	-	-	-
					WH	-	-	-
140	Yaquina <sup>3</sup>	24.93	47.79	IVw	SS	-	-	-
					WH	-	-	-

<sup>&</sup>lt;sup>1</sup> Table E1: Forest Productivity, Lane County Area, Oregon on the NRCS website reverses the order of suitable species for the Netarts units: shore pine, Sitka spruce, western hemlock.

The Oregon Department of Forestry practice requires that the dominant species be identified and used to determine productivity:

"The dominant species type should be used to determine productivity. The dominant species may be determined in several ways, such as using Oregon State Department of Revenue forest type maps, private industrial owners' type maps, aerial photographs, or field observation. \* \* \* We cannot assume that the first species listed is the dominant species even though it is a major species in the [] area. One of the alternative sources mentioned above must be used to positively identify the dominant species."

A Technique for Mapping Forest Land by Site Productivity Using Soil Survey Information, Oregon State Department of Forestry, August, 1978, pp. 8-9.

The original version of Goal 4 effective in 1975 required that forest inventories include site class mapping according to the United States Forest Service manual "Field Instructions for Integrated Forest Survey and Timber Management Inventories – Oregon, Washington and California, 1974." The purpose of the 1978 ODF publication was to describe how available soil maps can be used to inventory forest lands to satisfy Goal 4. This publication was relied upon in the preparation of Lane County's original forest inventory.

"Because Douglas-fir and western hemlock are more sensitive to the growth-retarding effect of the onshore winds, shore pine and Sitka spruce are more suitable for planting except in the more sheltered areas."

<sup>&</sup>lt;sup>2</sup> Although Table 6: Woodland Management and Productivity does not include Douglas-fir as a species suitable for planting in the Netarts units, the *Soil Survey* text notes that the 100-year site index in areas sheltered from onshore winds is 80 and productivity is 58 cf/ac/yr. The Soil Survey text states:

<sup>&</sup>lt;sup>3</sup> The Yaquina soil unit is not listed in Table 6: Woodland Management and Productivity in the *Soil Survey*. However, the unit is listed in Table E1: Forest Productivity, Lane County Area, Oregon on the NRCS website. The *Soil Survey* text notes that this unit is found in low, interdune positions in coastal dune areas and that native vegetation includes shore pine and Sitka spruce. The Soil Survey text describes the native vegetation as "mainly shore pine [with] scattered Sitka spruce."

#### II. Criteria applicable to the request

Approval of this request requires that the applicant demonstrate that, notwithstanding the prior comprehensive plan and zoning designation, neither Goal 3 nor Goal 4 applies to the subject property. OAR 660 Division 33 Agricultural Land and Division 6 Forest Lands also apply.

#### III. Analysis

#### A. Goal 3: Agricultural Lands

Goal 3 defines "agricultural land" to include:

"Agricultural land in western Oregon is land of predominantly Class I, II, III, and IV soils . . . as identified in the Soil Capability Classification System of the United States Soil Conservation Service, and other lands which are suitable for farm use taking into consideration soil fertility, suitability for grazing, climatic conditions, existing land-use patterns, technological and energy inputs required, or accepted farming practices. Lands in other classes which are necessary to permit farm practices to be undertaken on adjacent or nearby lands, shall be included as agricultural land in any event."

The Goal 3 definition is reiterated and expanded upon in OAR 660-033-0020(1):

- "(a) 'Agricultural Land' as defined in Goal 3 includes:
  - "(A) Lands classified by the U.S. Natural Resources Conservation Service (NRCS) as predominantly Class I-IV soils in Western Oregon and I-VI soils in Eastern Oregon;
  - "(B) Land in other soil classes that is suitable for farm use as defined in ORS 215.203(2)(a), taking into consideration soil fertility; suitability for grazing; climatic conditions; existing and future availability of water for farm irrigation purposes; existing land use patterns; technological and energy inputs required; and accepted farming practices; and
  - "(C) Land that is necessary to permit farm practices to be undertaken on adjacent or nearby agricultural lands.
- "(b) Land in capability classes other than I-IV . . . that is adjacent to or intermingled with lands in capability classes I-IV . . . within a farm unit, shall be inventoried as agricultural lands even though this land may not be cropped or grazed."

Goal 3 allows for the consideration of site-specific soils data:

"More detailed soil data to define agricultural land may be utilized by local governments if such data permits achievement of this goal."

The subject property was operated as the T-Bar Ranch Ltd. since 1992, State of Oregon corporation division Registry No. 275891-83. The farm operation was also known as Pacific Farms USA Limited Partnership. The fact that the subject property has historically been an active, ongoing agricultural use of the property means that the subject property is a "farm unit" under OAR 660-033-0020(1)(b).

Lands that are intermingled with the class IV soils on the subject property must be inventoried as agricultural lands. See Evenson v. Jackson County, 36 Or LUBA 251 (1999); Kaye/DLCD v. Marion County, 23 Or LUBA 452 (1992); DLCD v. Curry County, 28 Or LUBA 205 (1994). The Netarts soils on the subject property as mapped by Cascade Earth Sciences are intricately intermingled with the class IV Yaquina soils and must also be inventoried as agricultural soils. These class IV and intermingled soils comprise up to 69% of the subject property.

NRCS soils information leads to a conclusion that the subject property is predominantly comprised of agricultural lands because the subject property is predominantly class I-IV soils. The Cascade Earth Sciences report also supports

#### B. Goal 4: Forest Lands

Goal 4 defines forest lands:

"Forest lands are those lands acknowledged as forest lands as of the date of adoption of this goal amendment. Where a plan is not acknowledged or a plan amendment involving forest lands is proposed, forest lands shall include lands which are suitable for commercial forest uses including adjacent or nearby lands which are necessary to permit forest operations or practices and other forested lands that maintain soil, air, water and fish and wildlife resources."

The inquiry under Goal 4 is not limited to whether the soils on the subject property are suitable for commercial forest uses. Adjacent or nearby lands which are necessary to permit forest uses on forest soils are also forest lands protected by Goal 4. This includes adjacent or nearby lands on the subject property itself. If soils suitable for commercial forest uses are found on the subject property, and if those soils are intermingled with non-forest soils so that the non-forest soils must be inventoried as forest lands to enable forest use of the forest soils, the non-forest soils and the entirety of the subject property must be inventoried as forest land.

The methodology for inventorying forest land is set forth in OAR 660-006-0010 which provides, in relevant part:

"Governing bodies shall include an inventory of 'forest lands' as defined by Goal 4[.]

\* \* [T]his inventory shall include a mapping of forest site class. If site information is not available then an equivalent method of determining forest site suitability must be used."

OAR 660-006-0010 requires that inventory methodology include a mapping of forest site class. Forest Site Class methodology assigns a numeric site class according to potential productivity of each soil unit as shown in Table 3.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Source: USDA Forest Service.

#### TABLE 3: FOREST SURVEY SITE CLASS

Site Class Potential Yield, Mean Annual Increme	
I 225 or more cubic feet per acre	
II 165 to 225 cubic feet per acre	
III 120 to 165 cubic feet per acre	
IV 85 to 120 cubic feet per acre	
V 50 to 85 cubic feet per acre	
VI 20 to 50 cubic feet per acre	

OAR 660-006-0010 requires that the forest inventory *include a mapping* of forest site class — it does not *limit* the forest inventory to a mapping of potential productivity and does not *allow* for inventorying forest land solely on the basis of a generalized or "averaged" cf/ac/yr productivity which ignores soil mapping. The forest land inventory must include as forest lands "adjacent or nearby lands which are necessary to permit forest operations or practices and other forested lands that maintain soil, air, water and fish and wildlife resources" *within the area being considered for the plan amendment*. In other words, when looking at a parcel to determine whether it is forest lands, you must consider only the soils suitable for commercial forest uses. You must also consider adjacent and nearby lands — including adjacent or intermingled soils - which are necessary to permit forest operations or practices on the good forest soils. In addition, the function of the land in maintaining soil, air, water, and fish and wildlife resources must be considered. All of these factors must be considered together in determining whether the subject area is forest land protected by Goal 4.

#### 1. Soil Mapping methodology required by Goal 4 and OAR 660-006-0010.

Statewide Planning Goal 4 became effective in 1975. It charged the counties with the responsibility for determining and mapping their forest land by cubic foot site classes. The U.S. Forest Service manual, *Field Instructions for Integrated Forest Survey and Timber Management Inventories – Oregon, Washington, and California, 1974* was designated as the common source document for site class determinations. The Oregon State Department of Forestry issued a publication explaining how SCS soil maps can be used to develop an inventory of forest lands to satisfy statewide land use planning Goal 4.<sup>5</sup>

Goal 4 itself no longer specifies an authority for forest inventory and mapping methodology. However, OAR 660-006-0010 does require that the inventory determination be done using a mapping of forest site class or equivalent methodology.

The 1978 ODF publication explains what forest site class methodology requires. References are to SCS data contained in OR-Soils-1 Forms (OR-1s, or "green sheets"), as soil surveys were for the most part not yet published.

"OR-1's, as they are usually called, are prepared for each soil series in Oregon. \* \* \* A woodland Suitability section is on the back of the OR-1 form. If the soils described are not rated as suitable for forest production, no information will be entered in the

<sup>&</sup>lt;sup>5</sup> A Technique for Mapping Forest Land by Site Productivity Using Soil Survey Information, Oregon State Department of Forestry Resource Study Team, August, 1978. The methodology laid out in this document was used to conduct Lane County's forest land inventory. See Working Paper: Forest Lands, p. 4.

Woodland Suitability section[.] \* \* \* If the soil type is rated for forest production, the section includes productivity, species, and management information. \* \* \*

"Site index is given in the third column for the <u>species</u> listed in the second column. <u>Site index</u> is an indication of potential productivity without man's management and is based on the average total height of the dominant and codominant trees in the natural stand at the age of 100 years.

"Average site index, based on sampling, is given for the listed species. The standard deviation (±) is shown when four or more plots were measured on the listed soil. This is the site information that is used to identify the productivity of an area; its conversion to cubic foot site classes is described later."

The 1978 ODF publication explains what must be done if a soil is not rated for woodland production:

"Productivity would have to be determined from Department of Revenue productivity maps, other productivity rating, or field measurements."

The 1978 ODF publication also states that the dominant species must be used to determine forest productivity and explains how to determine the dominant species if the soils is suitable for the production of more than one species:

"The Woodland Suitability section may indicate more than one species and range of site index. In such a case the dominant species type should be used to determine the productivity of the forested area. The dominant species may be determined in several ways, such as using Oregon State Department of Revenue forest type maps, private industrial owners' type maps, aerial photographs, or field observation."

Another ODF publication<sup>6</sup> explains the "equivalent method" that OAR 660-006-0010 requires be used when site information is not available:

"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 not 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. \* \* \*

"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

<sup>&</sup>lt;sup>6</sup> Goal 4 specified that the methodology be applied as described in *Field Instructions for Integrated Forest Survey* and *Timber Management Inventories — Oregon, Washington, and California, 1974.* The ODF publication Land Use Planning Notes Number 3, April 1998, summarized the required methodology.

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. (Emphasis added).
- "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."

To determine the productivity of a soil type and aspect, ODF-approved methodology as described in *Land Use Planning Notes* requires that the height of 15 to 20 dominant and co-dominant trees be measured. Determining the age of about 10 of those trees is sufficient if the area is homogeneous. Additional plots must be taken for each soil type and aspect on the property. If sufficient suitable site trees are not available from the property, dominant trees from a nearby area with the same general aspect, elevation, and soil type may be selected. If trees are not available or if the site index cannot be accurately determined, soil survey methodology is required to accurately assess the site productivity. This requires that a soil scientist be employed to do a higher intensity soil survey. The soil scientist can determine whether the properties of the soils are close enough to soils with known productivity to apply the known productivity to the soils on the site.<sup>7</sup>

## 2. The consulting forester's report does not conform to the required methodology.

The applicant retained consulting forester Marc Setchko who produced a Forest Productivity Analysis of Florence Parcel (Setchko Report) dated November 2, 2004. The Setchko Report states: "Shore pine is the predominant tree species on the property at the present time[.] \* \* \* There are also a few scattered Douglas-fir and red cedar trees. There are a few hemlock trees growing on adjoining properties; currently, no hemlock is growing on the subject property."

Agricultural consultant Paul Day confirms that plant cover on the subject property consists of native vegetation including shore pine and cedar trees. Mr. Day states that the plant cover in

<sup>&</sup>lt;sup>7</sup> This explanation of how soil science methodology is applied to determine forest productivity is found in the 1978 ODF publication at p. 10.

most areas is reasonably dense; that the plant cover is effective in holding the sand in place; and that, in a few locations of less plant density, the sand is showing some erosion.<sup>8</sup>

The Setchko Report states that the soils on the subject property will "barely grow trees." This statement is belied by the descriptions of the property offered in the Setchko Report itself and by Mr. Day; and by site and aerial photographs, which show that the site is heavily vegetated. The 140 Yaquina soil unit comprises at least 48% of the subject property (69% according to NRCS data). The Setchko Report's conclusion that "it is questionable whether any trees can grow in this soil type due to the extreme environmental constraints found on this site" is contradicted by the evidence in the record, and contracted by the statement in the Setchko Report at p. 3 that there are "good stocking levels of shore pine" on the Yaquina soils. The Setchko Report does not support the conclusion that trees cannot grow by correlating inventoried trees with soil mapping to demonstrate that trees are not present on the 140 Yaquina soil unit or on any of the other soils. Photos do indicate that the 44 Dune land unit does not support tree growth.

#### 3. Productivity for Douglas-fir based upon available published data.

The Setchko Report contains three productivity calculations for Douglas-fir. None of the calculations of site productivity comply with the OAR 660-006-0010 directives that the forest land inventory include a mapping of forest site classes and, if site information is not available, that an "equivalent method" be used to conduct the inventory. Where data is not available, no "equivalent method" was used to provide data. A mapping of forest site class was not used in conjunction with the other elements of the Goal 4 definition of "forest lands" to determine whether the subject property should be inventoried as forest land.

#### a. First calculation based on 1997 Lane County Ratings

The first calculation is based on the 1997 Lane County Soil Ratings for Forestry and Agriculture, and and shows that productivity for all soils on the property is zero and concludes that average productivity is therefore zero. The Lane County Ratings includes no soils with a 50-year site index of less than 100 or a potential productivity of less than 136 cf/ac/yr – in other words, all soils with potential productivity for Douglas-fir of 135 cf/ac/yr or less are omitted from this listing. Relying solely on the Lane County Ratings would effectively establish a productivity threshold for "forest land" protected by Goal 4 of 136 cf/ac/yr.

#### b. Second calculation based on Office of State Forester memoranda

The 1989 Office of State Forester memorandum and its 1990 update that are the basis for the Setchko Report's second calculation was part an effort to identify "secondary lands" – soils with "medium" and "low" ratings (50-85 cf/ac/yr and 20-50 cf/ac/yr) for forestry. The memorandum does not identify the species considered; it appears most likely that productivity is for Douglas-fir, as the available NRCS data is generally for Douglas-fir and the data in the memorandum is for the most part consistent with if not identical to published SCS and NRCS data. The second calculation shows an average productivity of 26.15 cf/ac/yr.

<sup>&</sup>lt;sup>8</sup> Agricultural Evaluation Florence Property, Paul E. Day, Agricultural Consultant, September 27, 2004, p. 10.

<sup>&</sup>lt;sup>9</sup> The Lane County Ratings does include one soil – Kilchis stony loam – with a site index of 90 and a cf/ac/yr capability of 116.

This calculation assumes zero productivity for the 140 Yaquina unit, which comprises nearly half of the subject property. It is well established that the lack of a rating says nothing about potential productivity. In the absence of a published productivity rating for a soil, the "equivalent method" mandated by OAR 660-006-0010 requires that: 1) the dominant species on the soil type be determined; 2) a sufficient number of dominant or co-dominant site trees be identified and selected for each soil type and aspect; 3) the height and age of the site trees be measured; and 4) the cf/ac/yr productivity and site class be determined.

In the second calculation, the applicant's consulting forester has not determined the productivity of the 140 Yaquina soil unit using an "equivalent method." The mapping of forest site class has not been used to determine which areas of the subject property consist of soils "suitable for commercial forest uses"; whether other areas of the subject property are lands "which are necessary to permit forest operations or practices" on the subject property's forest soils; or whether areas on the subject property that are not "suitable for commercial forest uses" or "necessary lands" are nevertheless "other forested lands that maintain soil, air, water and fish and wildlife resources."

#### c. Third calculation based on OR-1s ("Green Sheets").

The Setchko Report's third calculation concludes that the average potential productivity of the subject property is 63.80 cf/ac/yr. As in the second calculation, the third calculation assumes that the potential productivity of the 140 Yaquina soil unit is zero. For the reasons explained above, assuming zero productivity for the Yaquina soils is not an "equivalent method" and does not meet the requirements of OAR 660-006-0010.

The Setchko Report disparages the OR-1 data as being "most optimistic." As is explained in the 1978 ODF publication, this data is based on sampling using U. S. Forest Service methodology and its accuracy has been statistically determined. It is neither "optimistic" nor "pessimistic" – it is simply what has measured. If the consulting forester believes that the published data is inaccurate, he has the obligation to produce more accurate data using an "equivalent method" as described in authoritative government and private industry manuals.

#### 4. Productivity for Douglas-fir based on site-specific information

The applicant's consulting forester also produced potential productivity calculations based on on-site measurements. The Setchko Report describes the methodology used as follows:

"The Site Class Index for a particular site can be determined by boring trees to determine their age and measuring the total height of the bored trees."

The methodology described does not meet the standards for a "mapping of forest site class" and does not constitute an "equivalent methodology." The required methodology requires that the productivity of each soil type and aspect be determined. This requires that 15-20 dominant and co-dominant trees be identified and measured for each soil type and aspect; that the age of at least 10 dominant and co-dominant trees be determined for each soil type and aspect; and that the productivity in cf/ac/yr be determined for each soil type and aspect. Oar 660-006-0010 requires that the results be mapped and the mapping be used to determine whether the area in question be inventoried as forest land, applying the "necessary lands" and "other forested lands" elements of the "forest lands" definition as well as the "suitable for commercial forest uses" element.

The Setchko Report does not assert or establish that dominant or co-dominant trees were selected for measurement. The number of trees selected for height and age measurement is not disclosed; there is no evidence offered to establish that 15-20 dominant and co-dominant trees were selected and that at least 10 trees were measured for age for each soil type and aspect. No site class determination was produced for the 140 Yaquina soil unit; rather, productivity was assumed to be zero, even though "good stocking levels of shore pine" exist on the Yaquina soils. The required forest site class mapping was not applied in conjunction with all of the elements of the forest land definition to conduct the forest inventory.

#### 5. Productivity for conifers other than Douglas-fir.

The Soil Survey indicates that western hemlock and Sitka spruce are tree species suitable for management on the soils found on the subject property. The Setchko Report states that these species are not currently found on the subject property, although they are found on nearby properties. The Setchko Report does not consider these species further.

#### The Setchko Report states:

"Shore pine will and does grow on the site. It is virtually the only species currently growing on the site at the present time. It is one of the few trees which will grow in the Yaquina fine sandy loam soil. \* \* \* Shore pine is a variety of lodgepole pine which grows in coastal areas."

The Setchko Report also states that mills west of the Cascades are able to utilize the shore pine wood.

The Setchko Report does not include on-site measurements or productivity data for shore pine. Rather, a generalized assumption that a "well-stocked stand" in the Northwest could obtain 5,000 board feet per acre. This assumed board-foot volume was then converted to a cf/ac/yr volume.

The data for shore pine was not produced by an "equivalent method" as required by OAR 660-006-0010. The Setchko Report's conclusions do not meet the OAR 660-006-0010 requirement that the forest inventory include a mapping of forest site class, nor was the forest site class mapping applied in conjunction with all of the elements of the forest land definition to conduct the forest inventory.

## 6. Neither the Plan nor Lane Code establish a 50 cf/ac/yr potential productivity threshold for forest land for "land suitable for commercial forest uses."

It is asserted by the applicant and assumed in the Staff Report that Lane County has adopted a 50 cf/ac/yr standard for forest lands. Neither the applicant nor the Staff Report cites to any Plan or Lane Code provision which establishes such a standard, and no such plan policy or provision exists. Rather, Plan Goal 4 Policy 7(a) specifically recognizes that cubic foot site class 6 forest lands, with potential productivity of between 20 and 49 cf/ac/yr, are protected by Goal 4 and may be planned and zoned for forest uses.

The Lane County Rural Comprehensive Plan was adopted by Ordinance PA 883. 28 working papers, including *Working Paper: Forest Lands*, were adopted in support of Ordinance 883

but were specifically stated to not be part of the ordinance itself. The purpose of the Forest Lands Working Paper is set fourth as follows:

"The objective of this report is to describe the nature of Lane County's forest lands and to provide information necessary to determine effective goals and policies for the County to properly address the compliance requirements of the Statewide Planning Goal #4." 10

The Working Paper: Forest Lands did not itself determine or establish goals and policies; it merely described Lane County lands and provided information. The documents accompanying this letter show that Lane County never adopted a policy or standard establishing a 50 cf/ac/yr threshold for "forest lands."

In PA 889 Lane County amended the Rural Comprehensive Plan policies established in PA 883 and adopted four findings in supporting the 40 acre minimum lot size in the F-1 zone. PA 889 adopted a finding *recommending* that the parenthetic definition of "commercial forest use" used in Section B: Technical Data of the *Addendum to Working Paper: Forest Lands* be amended to replace the number "20 with the number "50":

"Inventories of Lane County's "commercial" forest land (land capable of producing crops of industrial wood in excess of 20 cubic feet per acre of annual growth) have been done."

Order 84-9-12-3, adopted September 12, 1984, adopted a supplemental finding in support of PA 883 referring to PA 889 having "adopted" a definition of "commercial forest land (50 CFSC)." An examination of PA 889 reveals that the ordinance did no such thing; the referenced findings merely "recommend" the change. Further, in the context of the Addendum to Working Paper: Forest Lands, the definition is descriptive and is not a policy.

To reiterate, the Addendum to Working Paper: Forest Lands is not part of the Plan, does not establish Plan policy, and was explicitly stated to not be not part of the ordinance which adopted the Plan. The amendment did not impose or change a standard in the comprehensive plan; it merely changed the description of the county's land inventory as displayed in Figures I and II of the Addendum to Working Paper: Forest Lands.<sup>11</sup>

Several reasons were given for recommending the change from 20 to 50 cf/ac/yr in the parenthetic definition: Lane County had applied a 50 cf/ac/yr standard in the initial inventory process, consistent with the Forest Practices Act which applies to commercial operations and identified affected lands as those capable of producing 50cf/ac/yr; there was a very limited amount of land (< 2,500 acres) in Lane County productivity less than 50 cf/ac/yr.; and SCS data did not provide information indicating potential productivity below cubic foot site class 5. Those factors have now changed: consistent with U.S. Forest Service, ODF takes the position that lands capable of producing 20 cf/ac/yr are commercial forest lands and uses a 20 cf/ac/yr standard for application of the forest practices act; and more extensive productivity data, including data for productivity of less than 50 cf/ac/yr., is now available. Importantly, cubic foot site class mapping in Lane County was based on Douglas-fir. The appropriateness of restricting the inquiry to Douglas-fir was specifically questioned, particularly in areas adjacent

<sup>10</sup> Working Paper: Forest Lands, p. iv.

<sup>11</sup> Addendum to Working Paper: Forest Lands, p. 5.

to Coastal Lane County.<sup>12</sup> As is shown in Appendix II-3 of the *Working Paper: Forest Lands*, shore pine as a species has a potential productivity much less than that of Douglas-fir. Site Class 6 (20-49 cf/ac/yr) is the second highest site class shown, as Site Class 5 (50-84 cf/ac/yr) is the highest productivity shown in the table.

To reiterate, the *Working Paper: Forest Lands* does not establish Plan policies and is not a land use regulation. It simply did not and does not establish any legal standard. At most, it describes the factors that were applied in carrying out the county's forest land inventory. The fact that LCDC acknowledged Lane County's comprehensive plan does not mean that findings or revisions to the findings in support of the working papers that described the methodology used to develop the plan inventory and plan policies are themselves plan policies having the force of law.

Goal 4 underwent major revision in 1990, and OAR Chapter 660 Division 6 in 1990 and 1992. Any mere finding or passage in the working papers describing how an inventory was done that was last amended in 1984 cannot have been acknowledged as complying with Goal 4 and OAR Chapter 660 Division 6 as they exist today.

Mr. Cornacchia states that Lane County's definition of commercial forest land "was the subject" of *Holland v. Lane County*, 16 Or LUBA 583, 586 (1988). The issue of whether Lane County had in fact established a 50 cf/ac/yr standard for commercial forest land was not raised in *Holland*; all parties apparently assumed that it was an applicable standard. LUBA's holding did not address or decide the issue of whether the working paper had the effect of establishing a 50 cf/ac/yr standard. It should be noted that LUBA's *Holland* applied the forest land definition to require a finding that the majority of the soils on the subject property, as mapped, do not qualify as "commercial forest land" rather than an analysis utilizing productivity "averaging." *See Holland* at 592.

## 7. The Goal 4 analysis does not adequately consider all elements of the Goal 4 definition of "forest lands."

In addition to "lands which are suitable for commercial forest uses," the Goal 4 definition of "forest lands" includes "adjacent or nearby lands which are necessary to permit forest operations or practices and other forested lands that maintain soil, air, water and fish and wildlife resources."

a. Adjacent or nearby lands which are necessary to permit forest operations or practices.

As previously explained, Goal 4 requires that "adjacent or nearby lands" within the subject parcel itself be considered; the inquiry isn't limited to whether the subject property is necessary to permit forest operations or practices on other lands. The inquiry must look to the entirety of the lands being inventoried; map the commercially productive forest soils; and include in the forest land inventory those lands which are necessary to permit forest operations and practices on the commercial forest soils. If forest operations and practices cannot be carried out on the forest soils in the absence of the non-commercially productive areas, the non-commercially productive areas must be inventoried as forest land as well.

<sup>12</sup> Working Paper: Forest Lands, p. 3.

On the subject property, the soils are intermixed. It has not been established through the use of site index mapping or an "equivalent method" that any of the soils on the subject property (other than the 44 Dune land unit) are not suitable for commercial forest uses. Even if it were to be established that one or more soils are not suitable for commercial forest uses, the mapping has not been done that would allow a determination of whether such soils are necessary to permit forest operations on the soils which are suitable for commercial forest uses. Such soils must be considered with and added to the soils which are suitable for commercial forest uses in determining whether the subject parcel constitutes "forest lands."

b. Other forested lands that maintain soil, air, water and fish and wildlife resources.

Goal 4 also requires, even if soils are not suitable for commercial forest uses, that "other forested lands" be inventoried as "forest lands" if they maintain soil, air, water and fish and wildlife resources. Goal 4 does not limit the inquiry to "significant" or "important" resources. If the subject parcel contains such lands, they must be considered along with the "lands suitable for commercial forest uses" and "adjacent and nearby lands necessary to permit forest operations or practices" to determine whether the subject property is "forest lands" as defined by Goal 4.

The subject property is within the Beaches and Dunes Combining Zone. The purposes of the Beaches and Dunes Combining Zone include: "ensure the protection and conservation of coastal beach and dune resources," "prevent cumulative damage to coastal dune resources due to the incremental effects of development," and "provide for such protection of beach and dune resources above and beyond that provided by the underlying zone." LC 16.243(1). The designation is applied to beaches, foredunes, active dune forms, recently stabilized dune forms, older stabilized dune forms, and interdune forms. LC 16.243(19). Removal of vegetation and other soil-disturbing activities are strictly regulated in this zone, and development on slopes exceeding 25% is prohibited. The Beaches and Dunes Combining Zone designation itself recognizes that the designation serves to maintain dunal soil resources.

The Setchko Report at p. 3 states that there are "good stocking levels of shore pine" on the subject property as well as Douglas-fir and red cedar trees. Agricultural consultant Paul Day confirms that plant cover on the subject property consists of native vegetation including shore pine and cedar trees, and that the plant cover in most areas is reasonably dense. The subject property is "other forested land."

The Soil Survey states that the 94 Netarts fine sand units are on "stabilized sand dunes. It states that "[t]he hazard of soil blowing is high when the vegetation is removed." Regarding the 131 Waldport fine sand units, the Soil Survey states that they are "on stabilized sand dunes" and that "[t]he hazard of soil blowing is high when the vegetation is removed." Regarding the Yaquina unit, the Soil Survey states that it is found "in low, interdune positions in coastal dune areas" and that "[t]he hazard of soil blowing is high when the vegetation is removed." 15

<sup>&</sup>lt;sup>13</sup> Soil Survey of Lane County Area, Oregon, USDA Soil Conservation Service, 1987, p. 113-14.

<sup>&</sup>lt;sup>14</sup> Soil Survey, p. 141-42.

<sup>&</sup>lt;sup>15</sup> Soil Survey, p. 151.

The applicant's agricultural consultant has confirmed that the plant cover on the subject property is effective in holding the sand in place; and that, in a few locations of less plant density, the sand is showing some erosion. The subject property consists of "other forested lands" which maintain soil resources by preventing erosion. Even if for no other reason, the subject property must be inventoried as "forest lands."

The subject property is conceded to contain inventoried wetlands. The subject property is "other forested land" that "maintains" those inventoried wetland resources. The fact that the wetland resources might continue to be protected under a different designation is not relevant to the question of whether the land currently "maintains" them.

The subject property is located within the Mercer Lake watershed, which is within the North Florence Dunal Aquifer Protection Area." OAR 340-071-0400(2). The soils on the subject property are extremely permeable, with rates in excess of twenty inches per hour. Table 9 of the Soil Survey indicates that limitations are "severe" and that the Netarts, Waldport, and Yaquina soil units provide a "poor filter" for septic tank absorption fields. Redesigating the subject property "nonresource" and rezoning the land RR-5 could allow for the construction of 14 additional dwellings, which could adversely impact the aquifer. The lands on the subject property maintain groundwater quality in the watershed.

Forest lands also maintain air quality by sequestering carbon dioxide. Global warming is perhaps the most critical challenge we will ever face – estimates are that we must reduce greenhouse gas emissions by 70% or more below 1990 levels if we are to stabilize atmospheric greenhouse gas levels. Forest lands currently sequester approximately 1/10 of the United States' annual greenhouse emissions – yet forest land lose has meant that our forests' capacity to absorb carbon dioxide has shrunk by approximately 20% since 1990. Keeping forest lands as forest lands maintains and preserves what is by far our biggest carbon sink and is crucial in mitigating climate change.

#### C. The proposal does not comply with Goal 11 or Goal 14.

#### 1. Goal 11

Potable water is proposed to be provided to the subject property by the Heceta Water District.

Goal 11 is "[t]o plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development." Goal 11 provides, in relevant part:

"For Land that is outside urban growth boundaries and unincorporated community boundaries, county land use regulations shall not rely upon the establishment or extension of a water system to authorize a higher residential density than would be authorized without a water system."

Goal 11 defines "water system":

"Water system – means a systems (sic) for the provision of piped water for human consumption subject to regulation under ORS 448.119 to 448.285."

<sup>&</sup>lt;sup>16</sup> Agricultural Evaluation Florence Property, Paul E. Day, Agricultural Consultant, September 27, 2004, p. 10.

ORS 448.119 provides that any system providing water to four or more service connections is subject to regulation under ORS 448.119 to 448.285.

OAR 660-011-0065(2) provides, in relevant part:

"Consistent with Goal 11, local land use regulations applicable to lands outside urban growth boundaries and unincorporated community boundaries shall note:

**"\*\*** 

"(c) Allow an increase in the allowable density of residential development due to the presence, establishment, or extension of a water system."

OAR 660-001-0065(1)(b) defines "extension of a water system":

"Extension of a water system' means the extension of a pipe, conduit, pipeline, main, or other physical component from or to an existing water system in order to provide service to a use that was not served by the system on the applicable date of this rule, regardless of whether the use is inside the service boundaries of the public or private service provider."

LUBA has explained that Goal 11 generally prohibits water systems outside urban growth boundaries and unincorporated communities. *Wood v. Crook County*, 49 Or LUBA 682 (2005).

This application would amend the county's land use regulations (i.e., its plan and zoning maps) to allow for an increase in allowable density of residential development on the subject property. Approval relies upon provision of water to the subject property by a water system. Extension of the water system would allow for an increase in the density of residential development in violation of Goal 11 and OAR 660-011-0065(2)(c).

In addition, RCP Goal 2, Policy 19 requires that domestic water supply availability be considered when approving rural development densities of one residence per five or ten acres. RCP Goal 5, Water Resource Policies 3 and 5 require adequate water supplies to support proposed development, and application of a plan designation and zoning consistent with groundwater aquifer capacities.

Approval of the plan and zoning map amendments based on the presence of a water system would violate the county's own land use regulations as well as Goal 11 and OAR 660-011-0065(2)(c) the amendments are not consistent with groundwater aquifer capacities.

#### 2. Goal 14

Goal 14 is "[t]o provide for an orderly and efficient transition from rural land to urban land use."

Goal 14 generally prohibits urbanization of "rural land." 1000 Friends of Oregon v. LCDC (Curry County), 301 Or 447, 475 (1986). No exception to Goal 14 was proposed or approved by the county. Approval of the application requires demonstration that the proposed development is consistent with Goal 14. DLCD v. Klamath County, 42 Or LUBA 368, 372 (2002).

The applicant's proposed finding states that Goal 14 does not apply to nonresource lands. This is not correct. While the applicability of OAR 660-004-0040 is specifically limited to exception areas, that does not mean that Goal 14 does not apply. *DLCD v. Klamath County*, 42 Or LUBA 368, 372 (2002).

The subject property appears to be less than a mile from the Florence urban growth boundary. It is adjacent to RR-1 areas to the south and across Highway 101, and near to RR-2, RR-5, and Rural Commercial zones along Highway 101. Development of the subject property at 5-acre densities could allow for or result in urbanization of both the subject property and the surrounding area. Development at the requested 5-acre densities is only made possible by providing urban levels of water service.

Approval of the requested 5-acre minimum zoning would convert the subject property and adjacent lands to urban uses in violation of Goal 14.

## D. The proposal does not comply with applicable provisions of the Plan or Lane Code.

#### 1. LC 16.400(6)(h)(iii) provisions

LC 16.400(6)(h)(iii) provides that the Board may amend the Comprehensive Plan upon finding compliance with subsection (aa), that the amendment meets all applicable requirements of local and state law, including the Statewide Planning Goals and Oregon Administrative Rules; and upon finding that the amendment satisfies at least one of the five standards established in subsection (bb).

#### a. LC 16.400(6)(h)(iii)(aa)

As explained previously, the county's decision does not comply with statewide planning goals 3, 4, 11 or 14, or with administrative rules implementing those goals. Those arguments are incorporated by reference here.

#### b. LC 16.400(6)(h)(iii)(bb)

- LC 16.400(6)(h)(iii)(bb)(i-i)(bb) allows for an amendment under five circumstances: if it is
  - "(i-i) "necessary to correct an identified error in the application of the Plan; OR
  - "(ii-ii) necessary to fulfill an identified public or community need for the intended result f the component or amendment; OR
  - "(iii-iii) necessary to comply with the mandate of local, state or federal policy or law; OR
  - "(iv-iv) necessary to provide for the implementation of adopted Plan policy or elements; OR
  - "(v-v) otherwise deemed by the Board, for reasons briefly set forth in its decision, to be desirable, appropriate or proper."

The applicant has identified sections (iv-iv) and (v-v) as being applicable. As has been previously explained, the subject property was and is properly designated as Forest Land. The requested designations would not comply with statewide planning goals 3, 4, 11, or 14; or with applicable provisions of the Plan and Lane Code. Those arguments are incorporated by reference here.

#### c. LC 16.400(6)(h)(iii)(cc)

LC 16.400(6)(h)(iii)(cc) requires:

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

As explained below, the proposed Plan amendment does conflict with adopted Plan policies.

#### 2. Rural Comprehensive Plan provisions

#### a. RCP Goal 2, Policy 19.

RCP Goal 2, Policy 19 requires that domestic water supply availability be considered when approving rural development densities of one residence per five or ten acres.

As has been previously explained, the provision of water to the subject property to allow for increased residential densities is prohibited by Goal 11 and OAR 660-011-0065. Those arguments are incorporated by reference here. There is no evidence in the record that would support findings that alternative sources of water are available to service the subject property.

#### b. RCP Goal 5, Water Resource Policies 3 and 5.

RCP Goal 5, Water Resource Policies 3 and 5 require adequate water supplies to support proposed development, and application of a plan designation and zoning consistent with groundwater aquifer capacities. Proposed findings of compliance with these requirements rely on provision of water to the subject property by the Heceta Water District.

As has been explained in the Third Assignment of Error, the provision of water to the subject property to allow for increased residential densities is prohibited by Goal 11 and OAR 660-011-0065. Those arguments are incorporated by reference here. There is no evidence in the record that would support a finding that alternative sources of water are available to service the subject property.

#### III. Conclusion

The subject property is a farm unit which consists of 48% or more soils in agricultural capability class IV soils, and land in capability classes V-VIII that is adjacent to or intermingled with the class IV soils which must also be inventoried as agricultural lands even though the land is not cropped or grazed.

The forest land inventory has not been done using the required cubic foot site class mapping using available soils data or an "equivalent method." "Adjacent and nearby lands" have not

been considered in the inventory. The subject property is "other forested land" that maintains soil resources.

The proposal as submitted is not consistent with statewide planning Goal 11 or Goal 14. The amendments are not consistent with Lane County Plan and Code provisions related to the provision of water service.

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

Respectfully submitted,

Jin Just

Executive Director

IN THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY, CREGON

ORDER 84-9-12-3

IN THE MATTER OF ADOPTING A SUPPLEMENTAL FINDING IN SUPPORT OF PA 883

WHEREAS, in PA 883, the Rural Comprehensive Plan Ordinance that adopted the plan policies, 28 working papers, while not part of the Ordinance itself, were adopted in support thereof, and

WHEREAS, since PA 883's adoption, it has come to our attention that certain soils information in Appendix I to the Forest Lands Working Paper is not entirely accurate, now, therefore, be it

ORDERED, that the following supplemental finding: is hereby adopted in order to identify the correct soils information to use when determining commercial forest soils.

"Appendix I of the Forest Lands Working Paper was intended as an example of commercial forest soils and their corresponding CFSC ratings. However, these soils and ratings are not complete and are not entirely accurate. Therefore, Appendix I should not be utilized when determining commercial forest soils. Instead, the most current soils Data and Soils Interpretations as utilized by the U.S. Dept. of Agriculture soil Conservation Service should be relied upon in conjunction with the definition of "commercial forest land" (50 CFSC) as adopted by the Board of Commissioners in Ordinance No. PA 889, Exhibit "C".

Dated this Baday of Seph.

1984

Chair: lane County Office of Legal Counsel

#### Sackground:

Soil massing units were prepared by the County Soil Scientist in close cooperation with the Soil Conservation Service (SCS) by combining field checked aerial photographs and USGS 1:30,000 foot base mass. The resulting mass provide specific detailed soils information. The various soil characteristics and capability ratings are listed in the OR Soil S-1 Forms, "OR-1's".

An average Site Index was determined by the SCS based on the "OR-1's" from which was calculated a cubic foot site class (see "A Technique for Mapping Forest Land by Site Productivity Using Soil Survey Information", Gragin State Department of Forestry, 1978) as per Goal (4's it the first for innered) requirement.

The Site Index is an expression of the productive potential or capability of forest land. These site indeces are usually grouped into site quality classes, i.e. cubic foot site classes (CFSC). (se attached)

Appendix IV of the Forest Lands Working Paper lists the soil types inventoried within Lane County that constitute the forest lands having CFSC 2 through p.8 of the Forest Lancs Working Paper, March, 1982, and p. 5 of the Addengum to the Working Paper: Forest Lands, 1982:

"'Commercial' forest land (land-capable of producing crops of industrial wood in excess of 20 cubic feet per acre of annual growth)"

The state of the s

The use of this "commercial" forest land definition came from the State's application of a National Standard for inventory purposes. The inacorporiates of the National Standard in Lane County is indicated in the following table of Size Class VI forest land in Lane County: