



**(10) Bear Creek Rd. approaching intersection
sign for S. Bradford intersection.**



**(11) First glimpse of approaching intersection
from Bear Creek. Stop ahead sign refers
to Cloverdale Rd.**



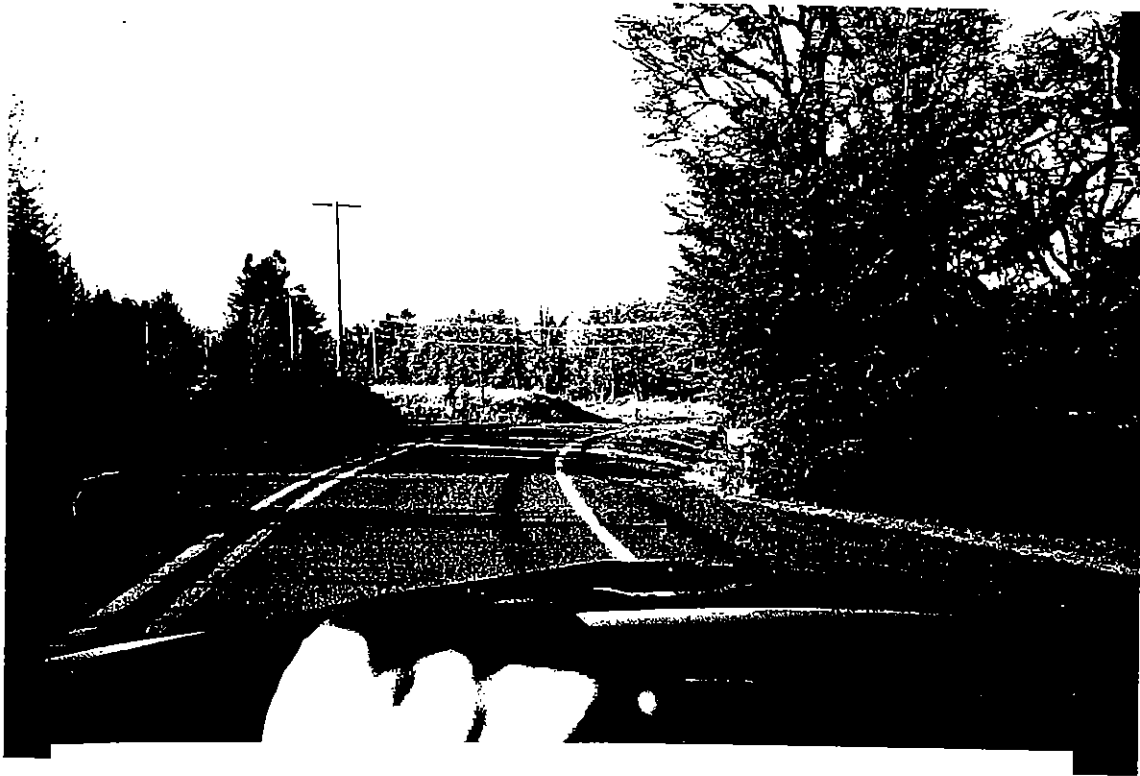
Bear Creek Rd. at S. Bradford: Note limited visibility. Plus, can you see the 2 driveways in the picture?



**Bearcreek between Bradford and Cloverdale:
Note curve and grade.**



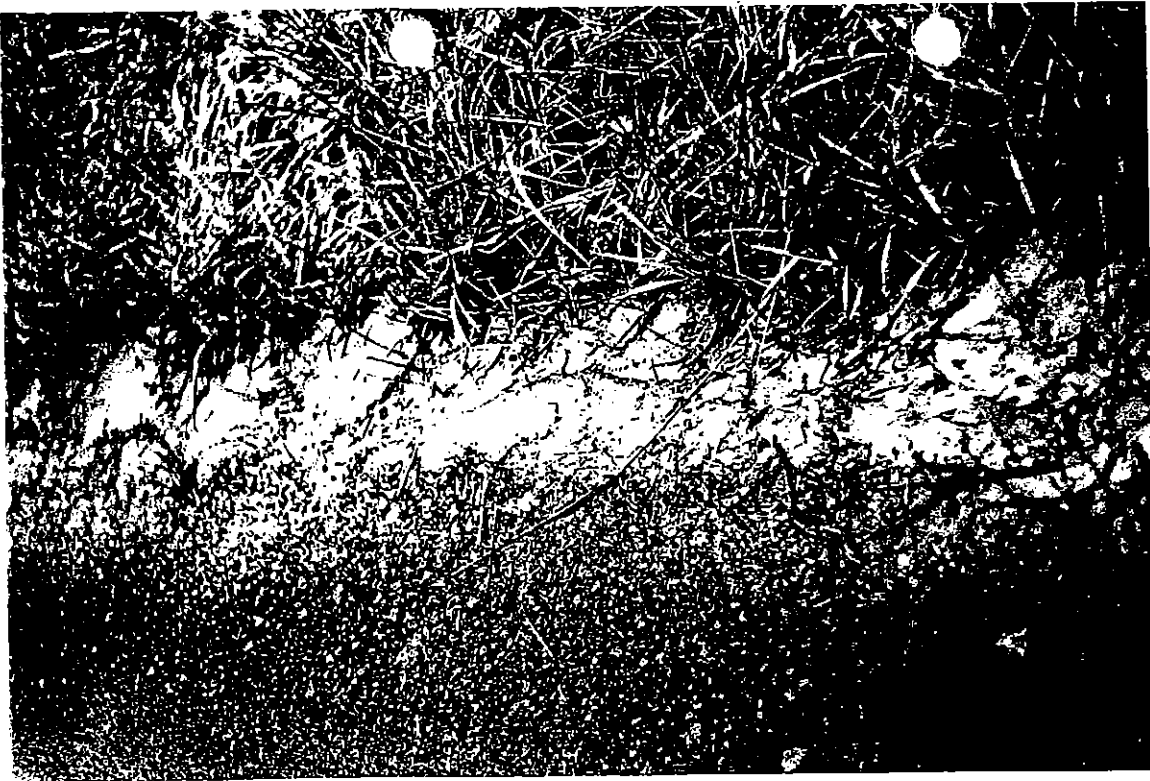
Bear Creek and Cloverdale intersection: Note how close to Bear Creek driveway on left is, and how edges of road show that the width is currently insufficient to handle current level of traffic.



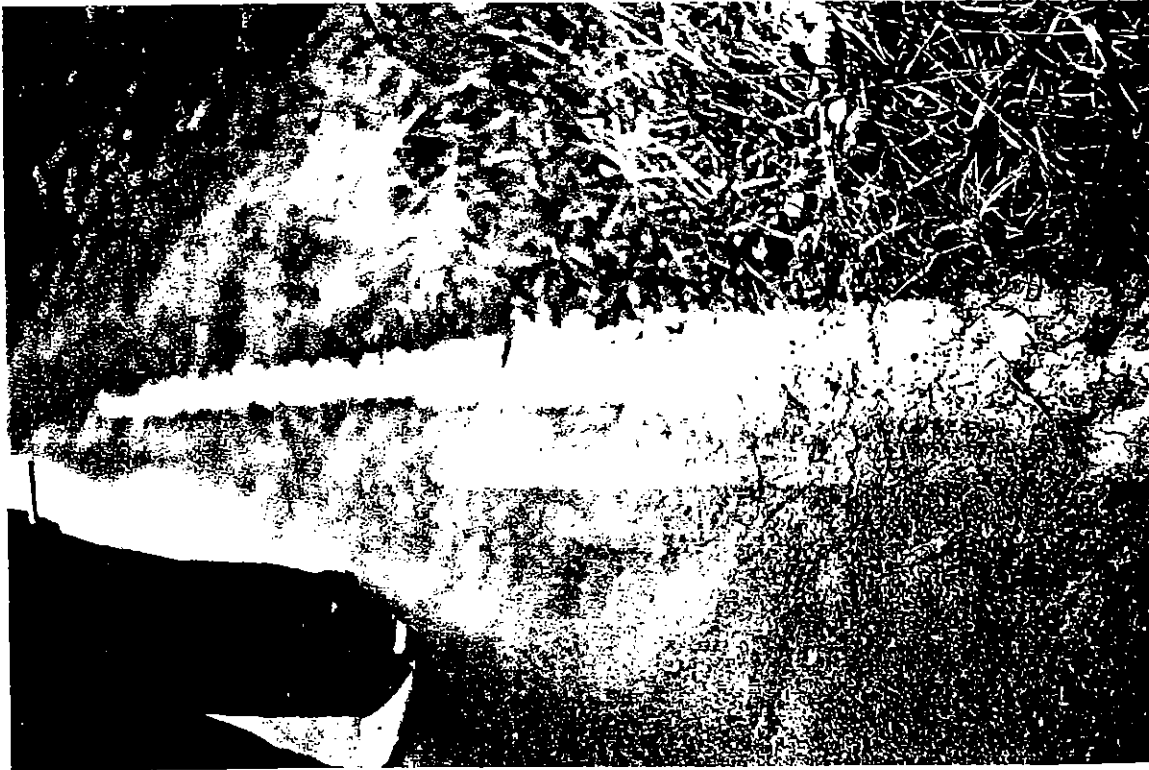
Bear Creek westbound-approaching Cloverdale: Note driveway on right and left (at power pole), far mailbox is at intersection with Cloverdale



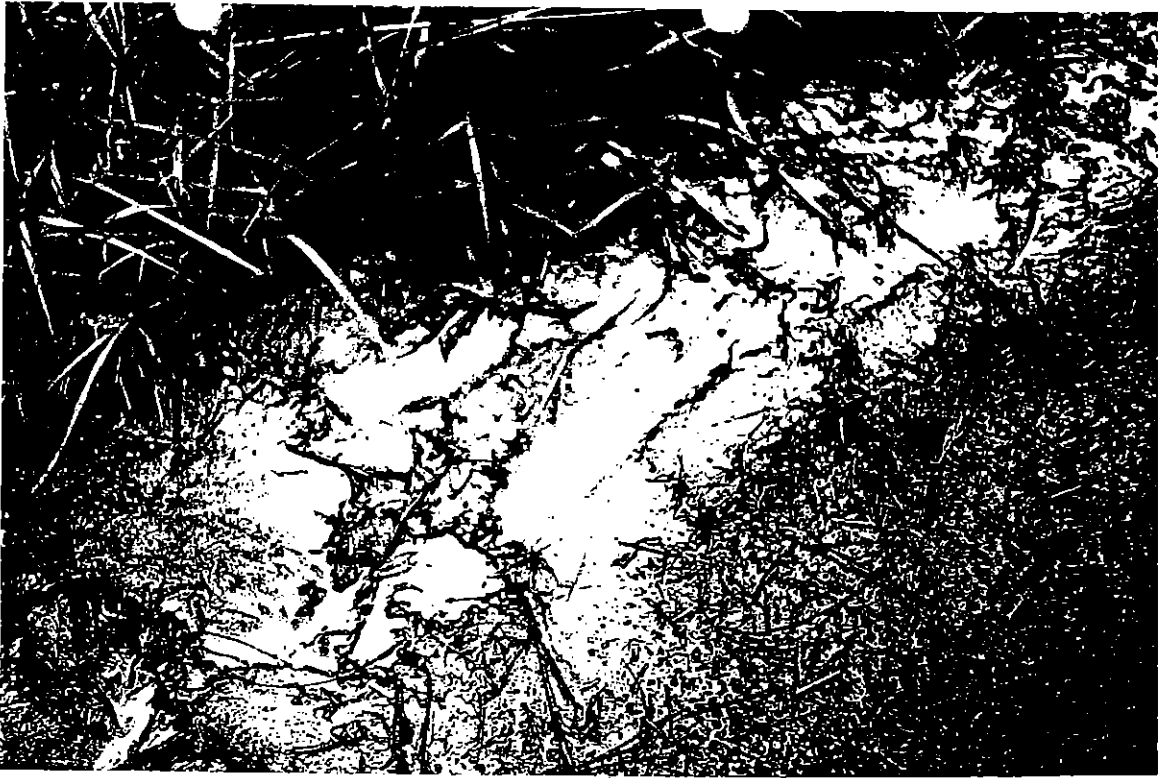
**(12) Heavy oil residue on quarry access road
draining onto Meyers property.**



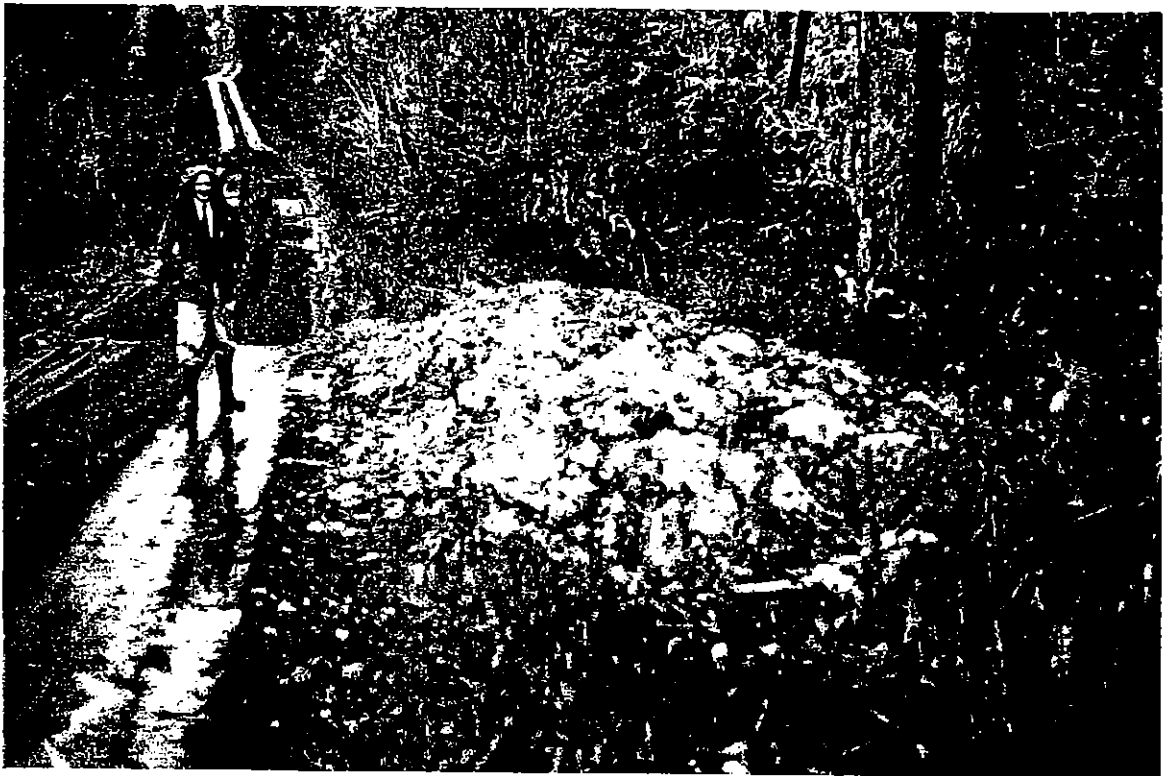
(13) Heavy oil sediment sitting on quarry access road.



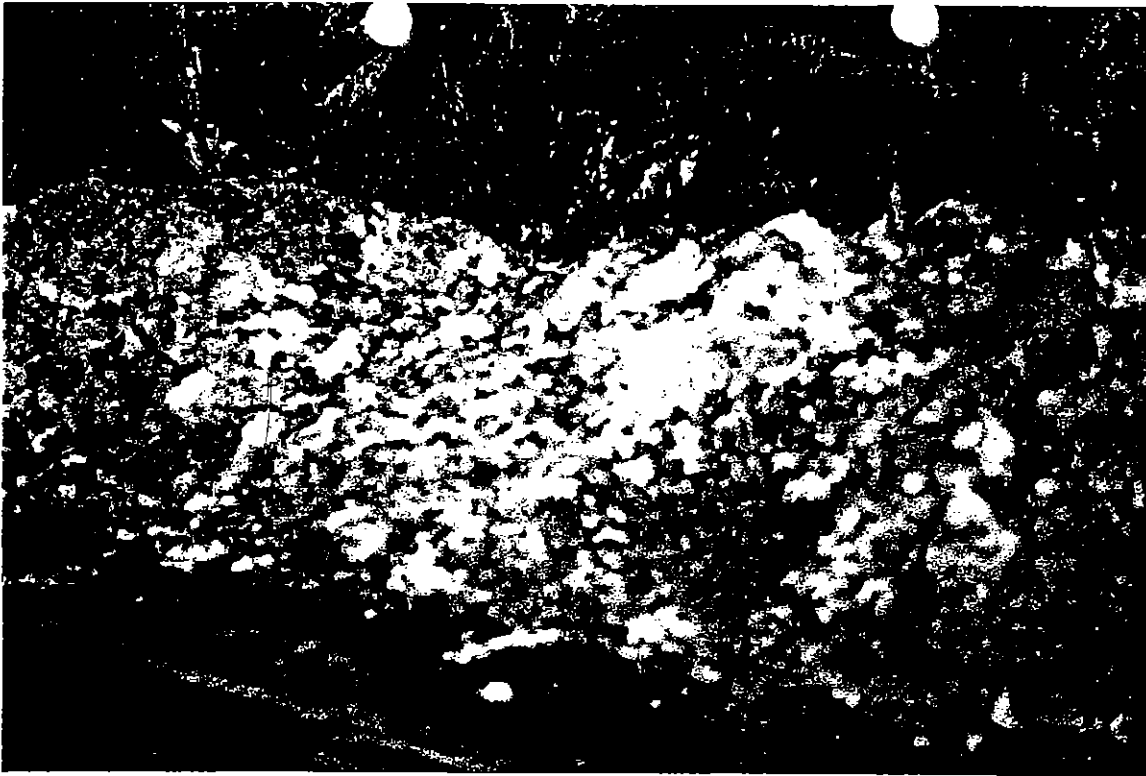
(14) Oil residue on quarry access road along Meyers boundry.



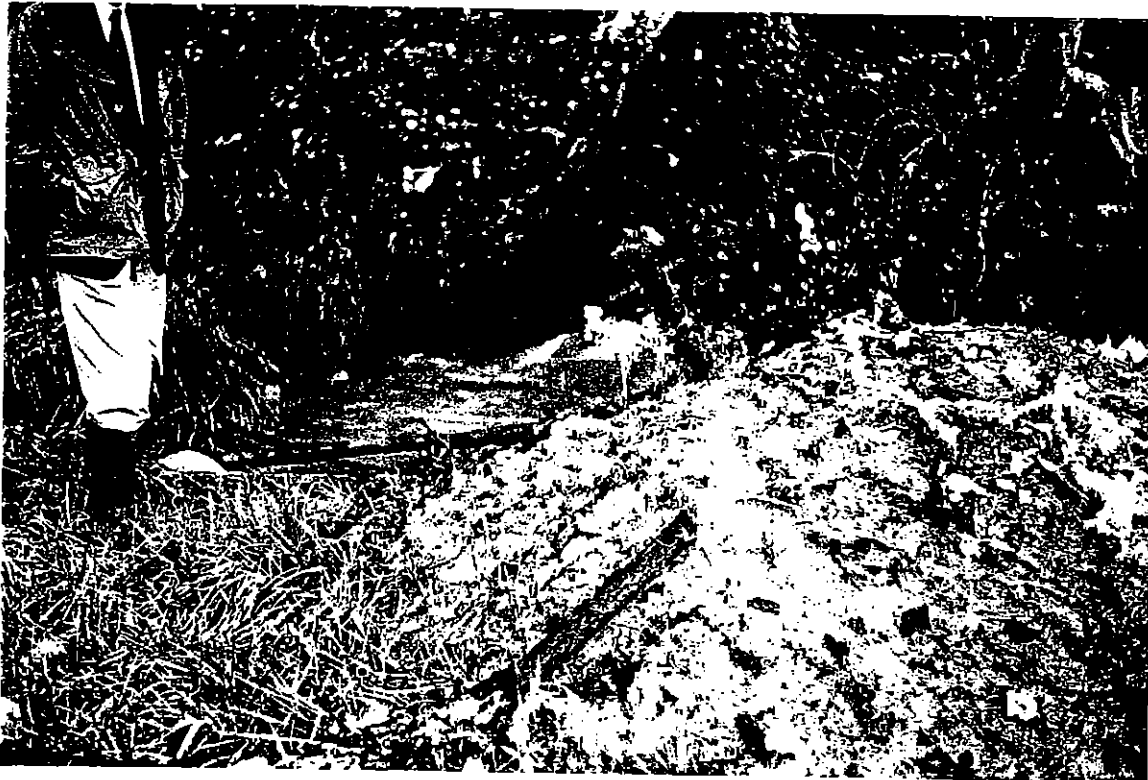
(15) Close up of heavy oil sitting along side of quarry access road along Meyers boundry.



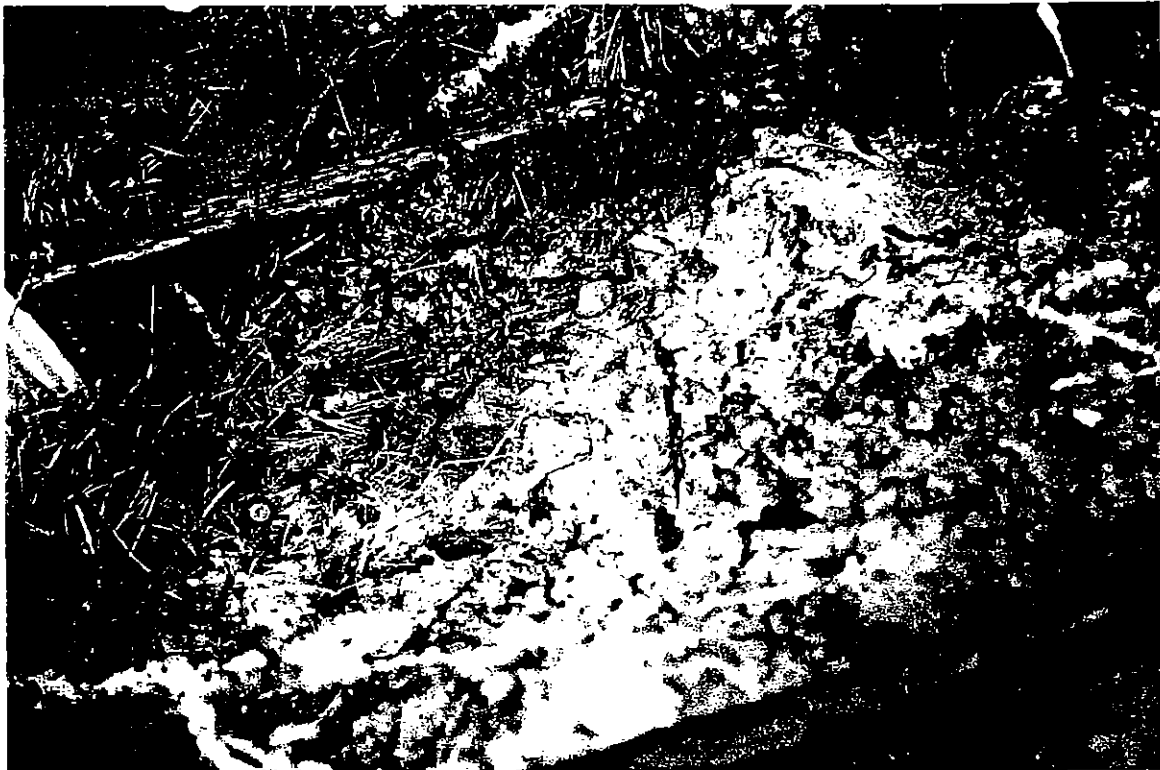
(16) Refuse piles dumped along quarry access road near Wild Creek, east boundry.



(17) Close up of refuse pile.



(18) Refuse pile dumped next to Wild Creek.



(19) Closes up of refuse pile, creek in upper left corner of picture.



(20) Refuse pile, taken from opposite side of creek looking at quarry access road.

RECEIVED BY
LAND MANAGEMENT

MAR 3 1999

AM 7,8,9,10,11,12,1,2,3,4,5,6 PM

March ³/₂, 1999

Chuck and Marla Swenson
82813 Bear Creek Road
Creswell, OR 97426

To whom it may concern,

We were horrified and embarrassed to find out at the end of the planning meeting March 2, 1999, that the fill dirt located along the Bradford Quarry access road referred to buy Planning Commissioner Rughani, came from our property. Last June we excavated for our new home and had permission from Ross Bradford to place some loads of fill material. This fill material consists of top soil, clay and rock, nothing more. Ross Bradford personally instructed us as to where to place it. He indicated this fill would be leveled out.

Being concerned after the hearing, we went up to see for ourselves. We found the fill dirt still unlevelled and agree it looks unsightly.

If you feel any changes need to be made on our behalf, we will be willing to comply at our expense.

Chuck and Marla Swenson

FILE # PA 98-5144
EXHIBIT # 76

LANFEAR Thom

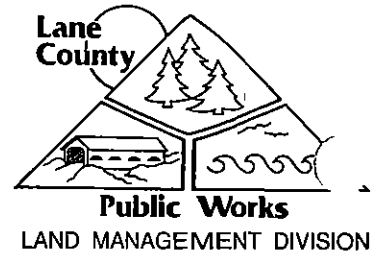
From: William Castillo [William.J.Castillo@STATE.OR.US]
Sent: Tuesday, March 09, 1999 11:57 AM
To: Thom.LANFEAR@co.lane.or.us
Cc: David.M.Anderson@STATE.OR.US
Subject: PA 98-5144 Rock quarry Impacts to elk

Thom,

You asked about the potential impacts of the proposed rock quarry off Bradford Road on the population of elk in that area.

During the 1980's elk numbers and elk damage problems increased dramatically in the Sears Road/Bradford Road area. Through a meeting with landowners, the Oregon Department of Fish & Wildlife (ODFW) agreed to reduce and maintain the elk herd in this area at low densities to minimize damage conflicts. ODFW has trapped and removed (transplanted) elk from this area and we have an annual damage control hunt in this area. The proposed rock quarry does not conflict with ODFW's management objective of maintaining elk at low population densities in this area.

FILE # PA 98-5144
EXHIBIT # 77



Date: March 10, 1999
To: Lane County Planning Commissioners
From: Thom Lanfear, Associate Planner *TL*
Subject: Quarry Plan Amendment PA 98-5144

Enclosed find the remaining materials submitted into the record for the Quarry Plan Amendment on Cedarcroft Road. As decided at the March 2 hearing, additional testimony will be heard at the March 16 meeting from persons unable to attend the initial hearing, and verbal rebuttal by the applicant. I expect that the applicant will also submit additional written materials at the hearing. In anticipation that time will be allowed for review and response to the new submittal for the opponents, then rebuttal by the applicant, I have tentatively scheduled the discussion/deliberations for this application for the April 6 meeting of the Planning Commission.

As discussed at the March 2 hearing, a Site Visit to the proposed quarry location has been arranged for March 17th at 10 A.M. I have arranged for a County vehicle that will accommodate the entire group. Please meet downstairs in the front of the Public Service Building cafeteria at that time. If you need any special arrangements, please call me at 682-4054.

FILE # PA 98-5144
EXHIBIT # 78

BEFORE THE LANE COUNTY PLANNING COMMISSION

IN THE MATTER OF THE POST ACKNOWLEDGMENT)
PLAN AMENDMENT TO ALLOW MINING PURSUANT)
TO OAR 660-023-0180)

PA 98-5144

APPLICANT'S RESPONSE TO TESTIMONY AND
ARGUMENT IN OPPOSITION TO POST
ACKNOWLEDGMENT PLAN AMENDMENT (PAPA

ORIGINAL

INTRODUCTION

The original Application and Amended Application herein addressed all criteria for a Lane County Comprehensive Plan Amendment according to Lane County ordinances. It is the applicant's legal position, however, that due to adoption by LCDC of the new Goal 5 in 1996, the Lane County criteria for amendment to the comprehensive plan including the requirement to address the Statewide Goals are not applicable to a plan amendment to identify a significant aggregate resource site.

The new Goal 5 Rule with respect to aggregate resources specifies the procedure and criteria for identifying and preserving the Goal 5 aggregate resource. OAR 660-023-0180(7) provides:

"Local government shall amend the comprehensive plan and land use regulations to include procedures and requirements consistent with this rule for the consideration of PAPAs concerning aggregate resources. Until such regulations are adopted, the procedures and requirements of this rule shall be directly applied to local government consideration of PAPA concerning mining authorization, unless the local plan contains specific criteria regarding the consideration of a PAPA proposing to add a site to the list of significant aggregate sites, provided:

(a) Such regulations were acknowledged subsequent to 1989; and

(b) Such regulations shall be amended to conform to the requirements of this rule at the next scheduled periodic review, except as provided under OAR 60-023-0250(7)."

Lane County's "local plan" does not contain specific criteria regarding a plan amendment proposing to add to the list of significant aggregate sites

FILE # PA 98-5144
EXHIBIT #1 80

within the county. All that exists in Lane County is the Mineral and Aggregate Resources Working Paper, which contains a list of significant sites at the time of its adoption. Neither the working paper nor any other portion of the Lane County Comprehensive Plan contains specific criteria for a plan amendment to add significant aggregate resource sites to an adopted list of those sites. This means that the criteria applicable to the application are only those in the revised Goal 5 Rule.

The arguments of the attorney for the opponent, as contained in their memorandum submitted March 2, 1999, are addressed herein as numbered in that memorandum.

RESPONSE TO OPPONENTS' ARGUMENTS

I. The Necessity of a Goal 2 Exception to Goal 4, The Forest Lands Goal.

First, the new Goal 5 Rule does not require that the Statewide Goals be addressed in the Post Acknowledgment Plan Amendment process set out in the rule. The rule does call out that conflicts with other Goal 5 Resource sites within the impact area must be addressed [OAR 660-023-180(4)(b)(D)]. The rule does not require that findings be made with respect to Statewide Goal 3, Agricultural Lands, but does specifically require that "conflicts with agricultural practices" be addressed [OAR 660-023-180(4)(b)(E)]. The fact that Goal 5 and Goal 3 resources are required to be addressed and Forest Lands are not is additional indication that under the PAPA process adopted by LCDC, Statewide Goals do not need to be addressed unless they are specified in the rule. It is noted that OAR 660-023-240(2) does specifically provide that Goals 15, 16, 17 and 19 shall supersede the Goal 5 Rule with respect to natural resources. There is no provision for Goal 4 to supersede the Goal 5 Rule or otherwise have special status relevant to the Rule.

The administrative rules adopted by LCDC pursuant to Goal 4, Forest Lands, provide that there are five general types of uses that may be allowed in the forest environment subject to the standards in Goal 4 and the administrative rules. Those include:

"(c) Locationally dependent uses, such as communication towers, mineral and aggregate resources, etc.;" [OAR 660-006-025(1)]

OAR 660-006-025(4) provides:

"The following uses may be allowed on forest lands subject to review standards in Section (5) of this rule:

(f) Finding and processing of oil, gas, or other subsurface resources . . . and mining and processing of aggregate and mineral resources as defined in ORS Chapter 517;”

The referenced Subparagraph (5) states as follows:

“(5) A use authorized by section (4) of this rule may be allowed provided the following requirements or their equivalent are met. These requirements are designed to make the use compatible with forest operations and agriculture and to conserve values found on forest lands:

- (a) The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;
- (b) The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel; and
- (c) A written statement recorded with the deed or written contract with the county or its equivalent is obtained from the land owner which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules for uses authorized in subsections (4)(e), (l), (r), (s) and (v) of this rule.”

The above-quoted language in the Goal 4 Rule would establish that an exception is not necessary as aggregate extraction is allowed within the rule. The fact that subparagraph (5) relates to compatibility of aggregate extraction with forest operations is also consistent with the lack of requirement that Goal 4 be addressed as part of the PAPA. The PAPA process itself requires that the aggregate use not adversely affect or conflict with surrounding uses, including forest uses in this instance, and that the aggregate use will not be impacted by the surrounding uses, including forest uses. The Goal 5 effectively addresses the issues that would otherwise be the concern under OAR 660-006-0025(5).

It is important to note that OAR 660-023-180(4), which sets out the process for reaching decisions about aggregate mining, lists specifically the sorts of conflicts to take into consideration and states before listing those potential conflicts, including those with Goal 5 resources and those with agricultural practices, “the local government shall limit consideration to the following” The conflicts listed there are an exclusive list set out in the rule.

II. Identification and Analysis of Impact on Other Goal 5 Resources

The opponents reference OAR 660-23-180(4)(b)(D) and assert that the Goal 5 resources of Wildlife and Big Game Habitat and Open Space have not been addressed as required by the cited rule. The opponents' claims and analysis ignore the precise terms used in the cited rule and their defined meanings in the administrative rules. OAR 660-023-180(4)(b) reads, in pertinent part:

“For determination of conflicts from proposed mining of a significant aggregate site, the local government shall limit its consideration to the following:

- (D) Conflicts with other Goal 5 resource sites within the impact area that are shown on an acknowledged list of significant resources and for which requirements of Goal 5 have been completed at the time that the PAPA initiated.” (Emphasis added.)

Plainly, the rule only contemplates resource sites on an acknowledged list of significant resources compiled through the Goal 5 process. OAR 660-023-0010 defines the terms used:

“(9) ‘Resource list’ includes the description, maps, and other information about significant Goal 5 resource sites within a jurisdiction, adopted by a local government as a part of the comprehensive plan or as a land use regulation. A ‘plan inventory’ adopted under OAR 660-016-0000(5)(c) shall be considered to be a resource list.

(10) ‘Resource site’ or ‘site’ is a particular area where resources are located. A site may consist of a parcel or lot or portion thereof or may include an area consisting of two or more contiguous lots or parcels.”

a. Wildlife and Big Game Habitat

The opponents point out that the area is located within a Major Big Game Range. That fact does not render the area a Goal 5 resource site. While the Goal 5 Flora and Fauna Policies reference Big Game Range, particularly with regard to residential construction, neither this nor other Big Game Ranges were ever identified and placed on an acknowledged list of significant resource sites as part of the Lane County Rural Comprehensive Plan. That is the end of the inquiry.

There are many criticisms, including the lack of a reliable factual base upon which to base conclusions, which could be made of the

opponents' biologist's study but it is unnecessary, as it is irrelevant to the criteria of the Goal 5 Rule.

It is noted that the Oregon Department of Fish and Wildlife (ODFW) has agreed to reduce and maintain the elk herd in the area as a result of meeting with landowners. ODFW sees no conflict between its objectives and the rock quarry. A copy of the memorandum of William J. Castillo of ODFW to Mr. Lanfear is attached.

b. Open Space

Reference is made to Lane County Rural Comprehensive Plan Policies regarding Open Space. There is no inventory or resource list identifying Open Space resources, including this site. Since the subject Open Space area does not exist on the list, no conflict needs to be addressed.

III. Traffic Analysis

A Traffic Analysis was obtained by the applicant early in the process, as the County indicated that such analysis was necessary for an application such as this. The opponents criticize the analysis as inadequate under the Goal 5 Rule. The opponents indicate that the analysis is not broad enough in that it does not extend to the nearest "arterial" and the analysis is criticized because it does not address the intersection of South Bradford Road and Bear Creek Road. Attached is Mr. Branch's supplementary report on both points. The analysis is geographically extended because the administrative rule requires that it extend to the nearest arterial. For the reasons stated below, the analysis is of no consequence, given the state of the law.

The rule provides at OAR 660-023-0180(4)(b) that the local government shall limit its consideration to the following with regard to roads:

"(B) Potential conflicts to local roads used for access and egress to the mining site within one mile of the entrance of the mining site unless a greater distance is necessary in order to include the intersection with the nearest arterial identified in the local transportation plan. Conflicts shall be determined based on clear and objective standards regarding sight distances, road capacity, cross section elements, horizontal and vertical alignment, and similar items in the transportation plan and implementing ordinances. Such standards for trucks associated with the mining operation shall be equivalent to standards for other trucks of

equivalent size, weight, and capacity that haul other materials;" (Emphasis added.)

There are simply no clear and objective standards in any adopted transportation plan of Lane County or in any ordinance in existence in Lane County. While the American Association of State Highway Transportation Officials (AASHTO) in its publication, Policy on Geometric Design of Highways and Streets, 1990, may have certain recommendations or standards, those are not part of any local transportation plan or ordinances and, therefore, cannot stand to establish "conflicts" relative to local road use. The same is true as to any judgment the County makes as to impact or wear on county road surfaces. In addition to the fact that there are no such standards in any local ordinances or plans, such impact would not be similar to the other items specified as potential standards in County ordinances and plans. The composition or potential durability of roads is not one of the items listed in the rule.

With respect to the intersection at South Bradford Road and Bear Creek Road, there are no locally adopted standards for sight distances, therefore, there is no conflict under the administrative rule. It is additionally noted that the rule, as above quoted, particularly specifies that the standards for gravel trucks shall be the same as standards for other trucks. The intersection at issue has long existed and the sight distances are the same for other vehicles. Even if the County had adopted particular standards for sight distances, standards could not be adopted that would regulate only the gravel trucks. The mining operation cannot be lawfully prevented due to this intersection.

IV. Easements on the Quarry Access Route

Under the new Goal 5 Rule, this is not an item for consideration in order to establish an aggregate site. Moreover, this consideration is not a standard in any comprehensive plan change or zone change. The attempt is made to indicate some of the tax lots that exist in the ownership of the Bradford Trust could be recognized as legal lots in the future. Legal lot recognition is a County process that has not taken place. Any lot that is created in the future is going to be subject to access requirements when the lot is recognized.

V. Lane Code 16.400(8) Regarding Impact on Land Use and Ownership Patterns

In the introduction portion of this submittal, OAR 660-023-180(7) is set out specifying that the criteria of the administrative rule which are applicable to applications for the addition of a site to the list of significant aggregate sites. The language of subsection (7), along with that contained in subparagraph (4), is as clear as possible that only the criteria of the administrative rules is to be applied. The obvious intent of the rule is to avoid vague and general terms and

standards that can unnecessarily prevent the recognition of significant aggregated sites. The rule defines what are “conflicting uses” and “impact areas” and allows consideration of effects of mining on surrounding uses. That is the only such standard that applies and LC 16.400(8) does not.

VI. County Inventory of Alternative Sites

The “safe harbor” provision of Goal 5 is designed to avoid the necessity of a local jurisdiction conducting an inventory of aggregate sites each time one is sought to be established. This criterion of LC 16.400(8)(C) is not applicable due to its pre-emption by the adoption by LCDL of OAR 660-023-180 establishing the criteria and procedure for the identification and authorization of new mining sites.

VII. Demonstration of Compatibility

While this and other criteria were initially addressed in the application, they are inapplicable to the application under the new Goal 5 Rule. The criteria contained in that rule are exclusive unless and until Lane County adopts local legislation consistent with the rule. The rule does require the identification of an impact area, identification of potential conflicts between the mining use and other uses, and requires mitigation of conflicts. This is the manner in which the rule addresses the issue of compatibility.

VIII. (2) Failure to Address Impacts on Nearby EFU Land and Farming Practices

OAR 660-023-180 contains a particular provision with regard to the relationship of potential aggregate sites to agriculture. The rule specifically directs that local government consider specifically “conflicts with agricultural practices.” This provision contemplates conflicts with practices rather than conflicts with uses. No farming practices or mode of operations have been identified that would conflict with the aggregate extraction use nor have conflicts been identified in the form of farming practices that would impact the extraction use.

OAR 660-23-180(4)(c) provides that to determine whether proposed measures would minimize conflicts with agricultural practices, the requirements or ORS 215.296 shall be followed:

“(a) The aggregate use will not force a significant change in accepted or farm or forest practices on surrounding lands devoted to farm or forest use; or

(b) The aggregate use will not significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm and forest use.”

The most likely use of the nearby EFU land is for pasture, given the character of the terrain and vegetation. With controls in place relative to discharge of water, particulate matter into the air, and the controlled nature of the blasting, no significant change will be caused to farm practices. This is also true with respect to forest practices. As discussed above, the sound from the operation, given the distances involved and the nature of the sound, will not adversely affect farm or forest use.

Even if it is assumed that “agricultural practices” includes farm uses such as raising sheep, chicken or horses as suggested by the opponents, no conflicts with those uses have been identified. It is suggested that those animals are sensitive to noise, vibration and similar disturbances. A “conflicting use” must be a use or activity that would interfere with or be adversely affected by the mining or processing activities. The mining activity will involve fairly constant sound at moderate levels as described in the acoustical engineer’s report. The blasting will also be of the nature that sound from that activity will be at moderate levels and will only occur an average of twelve times a year. There is no information submitted that would establish a significant potential impact upon livestock use.

In considering the issue of conflict of the extraction use with agriculture uses, it is worthwhile to note that ORS 215.213(2)(d)(B) allows mining, crushing or stockpiling of aggregate and other minerals on EFU land subject to ORS 215.298, which allows mining under our local land use permit on acknowledged sites. The fact that mining is allowed under statute on EFU lands is an indication of the consistency of the aggregate extraction use with agricultural practices.

There is no evidence to suggest that the aggregate use will significantly increase the cost of accepted farm or forest practices on the surrounding lands devoted to farm or forest use. Presently, the adjacent EFU land remains in primarily forest use, which will be unaffected by the mining operation.

IX. Failure to Address Quarry Market Area and Public Need

These are simply not requirements of OAR 660-023-180. Although information was submitted concerning these and related issues relative to criteria that are applicable to other local comprehensive plan amendments, by administrative rule, they are not applicable here.

X. Questions Regarding the DOGAMI Application

The opponents raise some questions concerning answers on the DOGAMI permit application. There is no indication of the relevance of some of these questions to the issues in the process.

There is mention of the fact that no dewatering of the site will be necessary. This is somehow seen to conflict with rainwater that collects in the pit at the site. The application does provide that a permit would be required from the Water Resources Department for dewatering activity on the site and indicates that stormwater must be contained on the site. This is a condition of the DOGAMI permit. A permit from the Department of Environmental Quality (DEQ) would be required for off-site discharges and any discharge of water over wetlands, streams or lakes. Such a permit would be subject to DEQ requirements that will assure existing water resources will not be adversely affected.

XI. Guarantees or Conditions

An issue was raised that the applicant may not blast using the method considered by the acoustical engineer. That which is described by the acoustical engineer is the modern method of blasting and the one utilized in aggregate extraction. There is no difficulty with imposing a condition requiring sequential blasting.

It is suggested that there be some provision for a penalty if the number of blasting exceeded twelve times per year. This site review is subject to the same enforcement as any site review within the County.

XII. Risk of Property Damage from Blasting

The applicant has testified to the applicant's ability to blast without damaging property in much closer proximity than the subject property. The hydrologist's report demonstrates that the blasting will not cause damage to structures that are generally a mile away. There was no credible evidence submitted that would substantiate any probability that the blasting will cause damage to the opponents' property.

RESPONSE TO TESTIMONY IN OPPOSITION

As set forth in the applicant's materials, the Goal 5 Rule contemplates an impact area of 1500 feet or a greater area, if factual information indicates significant potential impacts beyond the 1500 foot distance. The impact area is measured from the mining activity itself and the impacts must be from the mining or processing activities and not from transportation of the product. For

a use to be conflicting, it must interfere with or be adversely affected by the mining or processing activity. If a conflict is identified, the mining will be allowed if the conflict is minimized. This means, to reduce identified conflicts to a level that is no longer significant and for those types of conflicts that are addressed by local, state or federal standards (such as DEQ standards for noise and dust levels), a conflict is deemed minimized when there is compliance with those standards.

The testimony in opposition included concerns with noise from mining activity, including blasting and crushing. The report of the acoustical engineer, Exhibit D of the Amended Application, establishes that, assuming the worst case acoustically, sound levels from the crusher and loading of trucks would be at DEQ specified levels for exposure to a residence at a distance of 2100 feet and diminish from there. There are no residences whatsoever within a distance of 2100 feet and the residences of those raising the issue are closer to a mile distance from the mining site. The acoustical engineer also established that the sound from blasting would be well below DEQ limits for blasting.

The testimony included concern with effects of blasting in the quarry operation on water quality. The report of the hydrologist, at Exhibit J of the Amended Application, points out that the level of the quarry is well above that of the properties expressing the concern, therefore, would not affect groundwater for wells that will be far below the quarry floor level. As to water quality concerns, the hydrologist points out that the only possibility is a fuel spill from the mining operation if it were to infiltrate the ground through the quarry floor. As pointed out by the hydrologist, a spill prevention and cleanup plan must be prepared for the site as required by law which includes the requirement that cleanup materials be kept at the site and be readily available at all times. As discussed in the report, DEQ allows onsite remediation of hydrocarbon spills much larger than would occur in this situation and any risk of temporary groundwater pollution is minimal.

Concern was expressed with discharge of water from the site. The DOGAMI permit allows no discharge of storm water or process water from the site. Obviously, the mining operation cannot function without a DOGAMI permit, therefore, the applicant must adhere to these conditions. Photographs were presented of another quarry site indicating runoff from that site. These photographs have no relevance to the present application.

Some of the testimony presented suggested that blasting would release arsenic and other chemicals into groundwater. There is no scientific or factual basis for this concern. The applicant has sought the services of a hydrologist who has specifically addressed potential effects of the proposed use on groundwater. If there is any scientific basis for that which the opponents fear, they should present that in the form of an opinion of an expert to contradict that which is established by Mr. Christensen's report.

Much testimony was heard concerning dust caused by trucks but the Rule contemplates impacts from the mining itself. Lane Regional Air Pollution Authority (LRAPA) regulates the discharge of particulate matter into the air. The crushing equipment operates subject to a permit by LRAPA that assures compliance with DEQ standards. The applicant has indicated dust on Cedarcroft Road will be addressed even though it is not required by the applicable criteria. This has been criticized as inconsistent with the applicant's position that impact of the trucks does not have to be addressed but the applicant remains willing to remedy any problem of this nature.

Photos were submitted indicating "refuse piles" were deposited along the quarry access road on the Bradford property. Investigation indicates that Mr. Bradford allowed someone other than the applicant to deposit this material at this site and will require them to remove the material. While its deposit in this area may be unfortunate, it does not relate to the designation of this site as a significant aggregate resource and the amendment to the Comprehensive Plan to reflect that fact.

Much of the remainder of the testimony related to the truck traffic and use of local roads. That issue is addressed above.

CONCLUSION

Pursuant to the new Goal 5 Rule, the applicant is required to address the criteria of that rule for a Post Acknowledgement Plan Amendment. The applicant also seeks a zone change and the criteria for a zone change have been addressed in the Amended Application. The applicant has also addressed all criteria of the Lane Code even though those are different than the administrative rule requires and those criteria are superseded by the new Goal 5 Rule.

As has been stated, the new Goal 5 Rule was designed to recognize aggregate resource as an important resource and, by referencing definitive and objective standards, was intended to facilitate the identification and utilization of those resources. The rule does contemplate that there is to be local legislation, such as the local transportation plan setting standards for roads, that was to be adopted subsequent to the adoption of the administrative rule. Local standards have yet to be adopted.

As the rule contemplates, decisions with regard to the aggregate resource must be made based upon the provisions of the law and the standards adopted thereunder. The decision cannot be relegated to a matter of emotion. It is apparent by the opposition to this quarry located in the midst of F-1 and EFU land and approximately a mile from its opponents, there will be no site that is free of opposition and likely no site that will have less opposition than this site.

If aggregate is to continue to be available, new sites must be approved to meet the need for this resource.

Respectfully submitted,



James W. Spickerman,
Of attorneys for applicant BJ Equipment
Company, LLC

Attachments:

1. Memorandum from William Castillo to Thom Lanfear, March 9, 1999
2. Supplement to Traffic Impact Analysis, Branch Engineering, March 15, 1999

LANFEAR Thom

From: William Castillo [William.J.Castillo@STATE.OR.US]
Sent: Tuesday, March 09, 1999 11:57 AM
To: Thom.LANFEAR@co.lane.or.us
Cc: David.M.Anderson@STATE.OR.US
Subject: PA 98-5144 Rock quarry Impacts to elk

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You asked about the potential impacts of the proposed rock quarry off Bradford Road on the population of elk in that area.

During the 1980's elk numbers and elk damage problems increased dramatically in the Sears Road/Bradford Road area. Through a meeting with landowners, the Oregon Department of Fish & Wildlife (ODFW) agreed to reduce and maintain the elk herd in this area at low densities to minimize damage conflicts. ODFW has trapped and removed (transplanted) elk from this area and we have an annual damage control hunt in this area. The proposed rock quarry does not conflict with ODFW's management objective of maintaining elk at low population densities in this area.



Branch Engineering, Inc.

310 5th Street
Springfield, Oregon 97477
(541) 746-0637
Fax (541) 746-0389

March 15, 1999

James W. Spickerman
Gleaves Swearingen Larsen Potter Scott & Smith LLP
975 Oak Street, Suite 800
Eugene, OR 97401

Re: Supplement to Traffic Impact Analysis for Proposed Bradford Pit Quarry

Dear Mr. Spickerman,

In response to your letter dated March 5, 1999, this supplement addresses the following two issues:

- (1) Extension of TIA to include Highway 58 / Cloverdale Road intersection
- (2) Sight distance on Bear Creek Road at Bradford Road

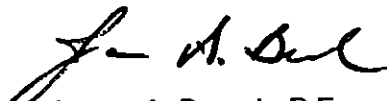
Branch Engineering extended the study of the subject project along Cloverdale Road to Highway 58 (the nearest arterial) per your request. I specifically investigated the level of services (LOS) at the intersection of Cloverdale Road with Highway 58.

The existing LOS for the northbound approach was found to be LOS 'B'. Evaluating the worst case scenario with all project PM peak hour trips assigned to this intersection, the northbound approach is calculated to operate at LOS 'C'. All other movements were found to operate at LOS 'C' or better.

Also, I have been made aware of an unsafe existing condition on a nearby residential street. Christopher M. Clemow, P.E. identified inadequate sight distance to the right when entering left from South Bradford Road on to Cloverdale Road. South Bradford Road is not planned for access or egress with the proposed quarry. I agree with Mr. Clemow that there is less than desirable sight distance. However, this problem needs to be addressed with or without the proposed development. Mitigation may include tree removal, regrading of the cut slope, speed reduction measures and additional signing.

The conclusion of this analysis is the same as that stated in the Traffic Impact Analysis in that the additional trips will not have significant adverse impact on the operating characteristics of the existing roadways and intersections.

Respectfully Submitted,


James A. Branch, P.E.

FILE #	PA 98-5144
EXHIBIT #	81

HEARING ON BRADFORD GRAVEL MINE
MARCH 16, 1999

My name is William Helmer. I live at 82886 Bradford Road, Creswell, OR.

I attended last month's hearing on the same subject and share the concerns expressed by my neighbors who testified then. I too have to endure the entry from Bradford onto Bear Creek on a daily basis and mentally cringe at the thought of adding 172 daily trips by gravel trucks to an already unsafe traffic entry.

However, my main points are on ~~a~~ different topics.

Allocation versus Integration of Land Uses

Worked for land management agency for 32 plus years. ~~Although not in land management or planning~~ I was introduced to the concept of **allocation versus integration of uses.**

Allocation - Place conflicting uses on different land areas.

i.e. residences over there - timber sales over here, etc.

Integration of uses on same land area a much tougher issue. i.e. increased and conflicting demands on same piece of ground - how do you integrate a clear cut, a campground and a grazing allotment ?

In this case an attempt is being made here to integrate a new use (gravel mining) that is incompatible with existing uses as well as incompatible with local ecology, and environment. *Some examples:*

Wildlife - Elk Herd

Watershed - Excess runoff

Existing Residences and Property Uses

Infrastructure - Road system, Traffic Safety

Mitigation (to make less severe, painful, intense)

Heard proponents address mitigation measures at last hearing.

FILE #	PA 98-5144
EXHIBIT #	82

How do you mitigate:

Loss of 340 acres of elk habitat?

Impact on the infrastructure-roads et al?

Extreme safety hazards at road intersections? - PUBLIC SAFETY

Impact on the watershed?

Noise and dust pollution through residential area for the next 40 years?

Impact on geologic strata through blasting?

Loss of value to existing properties and residences by allowing this operation ?

In my humble opinion there is no acceptable level of mitigation to the significant impacts which will be caused by the proposed mining operation.

Conclusions

Proposed change is an incompatible use with no over riding public benefit.

Mitigation is not possible or feasible.

Approval of this operation would amount to an adverse taking to all property owners in the Bear Creek - Bradford Road area by the County and proponent.

The proposed gravel mining operation should be allocated to another part of the County where it would represent a compatible use.

Respectfully submitted,



William Helmer.



Environmental Solutions

Nancy Holzhauser: Consultant
2540 Pierce Street
Eugene, Oregon 97405

(541) 343-6585

March 2, 1999

Doug Dupriest, Attorney
777 High St., Suite 200
Eugene, OR 97401


RE: Special Hunt and Overpopulation
Proposed Bradford Quarry Site, Creswell, Oregon

Dear Doug:

Regarding the argument about special hunt and overpopulation, a special hunt does not necessarily mean that there is overpopulation of an elk herd. To determine if a herd has surpassed its carrying capacity (overpopulation), several population and habitat calculations are made, such as the amount of land available in forage condition, size of winter range, and the amount of forage needed per animal. Signs of overpopulation include thin, diseased, weak animals, poor calf success, and extreme overgrazing of vegetation (ie. in clearcut units). No overgrazing in the units that I was able to see was evident to me, nor have the neighbors noticed signs of overgrazing in the area. In addition, the local residents report that the animals look healthy, and from what I saw of the Bear Creek drainage, there is plenty of forage available year-round with the large number of clear cuts.

A special hunt is issued when the animals have moved into an area where they conflict with human activity. A common instance is with a golf course. Elk are grazers, so a golf course or an agricultural grass field is exactly what they like...it's a lot easier to graze in a field than it is to feed in a clearcut.

In addition, it is possible that the quarry operation, and especially the heavy truck traffic along Cedarcroft Road, would funnel the animals down the creek that is located to the southwest of the quarry site, out onto the fields to the north. This would create an even greater chance of conflict because the forage habitat near the quarry and haul route would become less desirable due to increased harassment.


Nancy Holzhauser
Wildlife Biologist

FILE # PA 98-5144
EXHIBIT # 83

March 15, 1999

Lane County Planning Commission
125 East 8th
Eugene, OR 97401

Re: Bradford Quarry Rezoning Proposal

Attn: Planning Commission

I purchased my home located on Bear Creek Road due to the peaceful serenity of the surrounding area. I felt the purchase price was higher than that for a similar property in the rural Creswell area but the peace and quiet associated with living on a dead end road was worth it. We are comfortable riding our horses along side the road due to limited traffic and there are frequent walkers and bicycle riders who pass by. Our quality of life has been excellent since we moved here.

I am genuinely concerned with the proposal to add an industrial quarry operation in our area. As I have stated, I felt that I paid more for my property due to the excellent ambiance of our area. The noise and traffic created by the blasting and the frequent truck movement would certainly devalue properties in the local proximity. Pedestrian safety would be jeopardized due to the curvature of the road and the narrow shoulder.

Please decline the request for the Bradford Quarry.

Sincerely,



Sue Ordonez
82313 Bear Creek Road
Creswell, OR 07426

FILE # PA 98-5144
EXHIBIT # 84

3-16-99

Members of the Lane County Planning Commission:

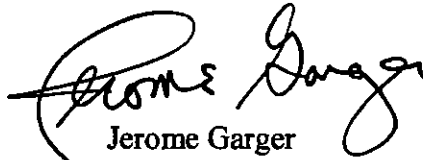
Thank you for allowing me the opportunity to express my opinion regarding the forty-acre rezoning request by Ross Bradford from forest use to use as a commercial gravel quarry. My name is Jerome Garger. I reside at 1644 Rosy Turn in Eugene. I have been a resident of the Eugene area for almost thirty years and in 1998 retired from teaching at Lane Community College after teaching a total of thirty nine years at universities, high schools, and community colleges in Missouri, Utah, and Oregon.

I have since 1993 been fortunate enough to have been invited by Diane Lane, my friend and then-colleague at LCC, to go for many walks throughout the seasons with her and others in the Bear Creek Road area. These walks have until fairly recently been a respite from the increasing noise, bustle, traffic, and pollution in Eugene and a chance to enjoy some of the fresh air, greenery, sightings of wildlife, and visual beauty that make Oregon a wonderful place to live and raise a family.

Last summer, however, our walks were frequently interrupted by having to find a place to step off the roadway to make room for truck traffic and its accompanying dust, noise, strong smell of exhaust fumes, oil on the road, danger from limited visibility, etc. I found myself walking in the middle of what I was trying to get away from. I can extrapolate from these experiences and imagine what it would be like with a loaded gravel truck going by every five minutes ten hours a day.

I have for about a year been looking for a place to buy and focusing for a variety of reasons on the Bear Creek Road area. I hesitate now to do so and conjecture that property values will drop abruptly if this rezoning and its subsequent damage to the eighty homeowners are approved.

If you choose to approve this rezoning you will be putting the rights of one property owner over the rights of many, opening the door to large-scale, commercial, industrial development in the middle of a beautiful neighborhood, and looking at a profound issue with shortsightedness rather than long-term vision. ^{Please do} ~~not~~ not destroy what makes Oregon uniquely Oregon. I urge you to vote against this rezoning request. Thank you for consideration of my viewpoint.



Jerome Garger
1644 Rosy Turn
Eugene 97404-2941
461-4916

FILE # PA 98-5144
EXHIBIT # 85

TRUCK ROUTE
From I-5 to Quarry Site

- Leaving I-5 the trucks will turn east on Cloverdale Road. This road goes through a heavy residential area that is part of Creswell's urban growth boundary. There is also a large shopping complex being developed in this area between the freeway and the Coast Fork of the Willamette River.
- About two miles east of I-5, the trucks will turn right onto Bear Creek Road. Within a tenth of a mile they will pass the intersection with Bradford Road South. This is an intersection with extremely limited visibility for members of the 30 plus households attempting to enter Bear Creek Road at various times of the day. In addition, Creswell and Emerald Junior Academy school buses travel these roads at least 8 times a day while picking up and delivering students to the numerous residences along Bear Creek and Bradford Roads.
- The trucks will turn right after about a mile onto CedarCroft Road. This narrow road has several residences within very close proximity to the road. These residences directly suffer the consequences of the noise, dust and fumes from the numerous trucks that would be using this as a primary haul road.
- CedarCroft Road continues as a steep, narrow, one-lane road, crossing Wild Creek and a sensitive wet lands area, traveling through Big Game Habitat up to the proposed quarry site. This hillside is home to a large elk herd as well as deer, bear, cougar, coyote, and many other species of small animals and birds.

RECEIVED BY
LAND MANAGEMENT

MAR 13 1999

AM
7,8,9,10,11,12,1,2,3,4,5,6 PM

March 17, 1999

Ms. Janey Barnes-Wiederhold
Lane County Planning Staff
125 East 8th Avenue
Eugene, OR 97401

Re: PA 98-5144
Rezone for Quarry and Mine Operations

I wish to be placed on the mailing list to receive copies of public notifications, hearing notices, and findings or decisions made by Lane County regarding the application listed above. Send to the following address:

Tim Marshall
100 Rustic Place
Eugene, OR 97401

Thank you for your assistance.

Sincerely,



Tim Marshall

FILE # PA 98-5144
EXHIBIT # 86

RECEIVED BY
LAND MANAGEMENT

Lane County
Land Management Division
Public Works Department
125 E 8th
Eugene, Oregon 97401

MAR 22 1999

AM 7,3,9,10,11,12,1,2,3,4,5,6 PM

March 19, 1999

Gentlemen:

The purpose of this letter is to convey to you the concerns that we share regarding the potential traffic problems which will arise as a result of the introduction of heavy traffic on Bear Creek Road in Creswell if the proposed zoning change permitting a gravel pit on the Ross Bradford property is allowed.

It has been reported that an expected eighty six truck loads per day has been estimated and we are all residents of the streets or roads which will be impacted. One parcel abuts S. Bradford Road and Bear Creek Road, one abuts S. Bradford Road and Bradford Road and one abuts Bradford Road and Bear Creek Road. All of us must use the intersections of S Bradford Road and Bear Creek Road as well as that of Bear Creek Road and Cloverdale Road. We are very concerned for the safety of the children living in this area, those riding the school busses serving the Creswell School District as well as those from the Emerald Valley Academy in Pleasant Hills and of course all of the residents living in the affected area.

We know that you, as our elected representatives, are concerned about the well being of all of your constituents and will give this matter your greatest consideration.

Respectfully,

Mr and Mrs Willard Evanson
82910 S Bradford Road

Creswell, Or 97426

Willard Evanson
Berthabelle Evanson

Mr and Mrs Walter Hoffmann
82906 Bradford Road

Creswell, Or 97426

Walter Hoffmann
Elsa Hoffmann

Mrs D E Sogge
82870 Bradford Road
Creswell, Or 997426

Dorothy E. Sogge

FILE # PA 98-5144
EXHIBIT # 87

Anderson
Cox, Coons
& DuPriest
P.C.

Attorneys and
Counselors at Law

March 23, 1999

Planning Commission
c/o Thom Lanfear
Land Management Division
Lane County Courthouse/PSB
Eugene, OR 97401

Via Hand Delivery

200 FORUM BUILDING

777 High Street
Eugene, Oregon
97401-2782

PHONE

541 686-9160

FAX

541 343-8693

RE: Bradford/BJ Equipment Plan and Zone Change Request
Your File No. PA 98-5144
Our Clients: Bear Creek Neighbors
Our File No. 8330

Dear Planning Commission Members:

This letter provides comment and information on a few of the many issues in this case, to assist you with your deliberations.

The Applicant's Traffic Engineer Concurs With The Neighbor's Engineer That There Is A Sight Distance Problem At The Bear Creek/South Bradford Road Intersection.

The letter attached to the applicant's attorney's letter submitted at the second planning commission hearing concurs that there is a sight distance problem at the corner of South Bradford Road and Bear Creek Road.

This intersection is within the area for which the applicant must address traffic impacts under the Goal 5 rule.

The applicant appears to be asserting that since its dump trucks would not be turning at that intersection that it would not affect the intersection. That is not credible. That is like saying that traffic driving along West 6th or 7th Avenues in Eugene does not affect vehicles that are trying to turn on or off Willamette Street at 6th or 7th Avenues. Through traffic affects the ability and safety of vehicles making turning movements at an intersection, especially on short curves, such as are present at South Bradford.

Significantly increased through traffic on Bear Creek Road at South Bradford Road raises a safety concern that the applicant has failed to adequately address.

Bruce H. Anderson

James K. Coons

John G. Cox

Douglas M. DuPriest

Stephen A. Hutchinson

Jessica L. Wood

Of Counsel

William H. Sherlock

FILE # PA 98-5144
EXHIBIT # 88

Kris Jeremiah Stated That BJ Equipment Blasted At The Bradford Quarry During 1998.

While first he equivocated, stating that "BJ had not blasted while hauling", Kris Jeremiah later confirmed that BJ had shot rock once at the Bradford quarry last year. This statement was made during the planning commission's site visit to the quarry.

Various area residents reported hearing and feeling that blast, including Bob Meyers, whose property shares a long common border with the Bradford property.

But, according to the report of the applicant's acoustic engineer, the neighbors should not have been able to hear the blast that they in fact heard. Actual experience at this location last year should carry more weight than an expert's extrapolation about what might happen based upon studying a different site.

Kris Jeremiah Stated That BJ Equipment Blasted Rock At The Chris Meyers Property, Located A Short Distance To The South.

In response to a question posed during the recent site visit, Kris Jeremiah stated that his company had blasted the top of a hill visible a short distance to the south for Chris Meyers, but apparently the owner of that property has not been utilizing that rock, as much of it is still visible from the Bradford quarry.

Residences Have Existed In This Area For Many Years And Many Residences Are Located In Approved Rural Residential Zones.

The Meyers testified that there has been a house on their property, which is located immediately north of the Bradford property, for 100 years.

Zoning maps reveal that many properties are zoned Rural Residential, particularly along South Bradford Road and Cedarcroft Road. The houses on those properties are appropriate to the planning and zoning designations on those properties.

A Quarry Started In Conjunction With Forest Uses On The Bradford Property Is One Thing And A Commercial Quarry Is Another.

The amount of quarrying permitted outright in the F-1 zone is basically limited to accessory use in conjunction with forest uses. To do more requires a conditional use permit. Our understanding is that no conditional use permit has been obtained.

The extent of mining and hauling activity that would be allowed by this plan and zone change would be many times greater than that allowed by the existing zoning designation. To claim otherwise is to understate the practical significance of the requested change.

Area Residents Have Already Had A First-Hand Introduction, On A Modest Scale, To Some Of The Effects A Commercial Quarry Would Have On Their Neighborhood.

The owner and operator have hauled rock off the Bradford property in recent years, to remote locations and for purposes other than forest uses. Thus, area residents do not have to guess about some of the impacts of such use, as they have already experienced them, to at least a modest extent. The extent of those impacts can reasonably be expected to increase were the requested rezoning allowing commercial operations approved.

Compliance Is A Significant Issue, If Conditions Are To Be Relied Upon In An Attempt To Mitigate Impacts.

Information has been submitted into the record suggesting that both the owner and operator have, on various occasions, not acted in accordance with applicable county law or best management practices.

A letter is being submitted regarding blasting conducted by BJ Equipment (presumably by trained and certified personnel) at Interstate 5 and the East Dillard access road, where too large a charge was used, which resulted in rocks flying much further than intended, including onto Interstate 5 itself.

A letter is being submitted showing that the County recently requested Ross Bradford to come into compliance with county laws with respect to a mobile home located on part of his ownership adjacent to this quarry. The request to comply was made in early December and the mobile home is still there and no permit has been applied for. Our understanding is that

the County compliance officer has had difficulty scheduling a visit the Bradford property (and my request for permission to visit the quarry before the planning commission hearing was declined).

Testimony has been submitted that during recent years, especially last summer, numerous dump truck loads of rock have left the Bradford property headed for off-site projects and locations. At least one of those projects was residential, which was inconsistent with the limitations in effect for use of rock from the Bradford property under its current F-1 zoning.

The point, of course, is that rules are one thing and compliance is another. If a violation occurs, achieving compliance can be a matter months or years. Some owners and operators view paying fines for non-compliance as a cost of doing business. In some circumstances, simply paying fines for non-compliance, when one is caught, can be cheaper than bringing one's operation into compliance.

Any conditions that might be suggested to mitigate impacts from the proposed operation must be readily enforceable, in a prompt and effective way, or they may simply provide the illusion of having resolved a conflict, but only succeeded in allowing the conflicting use and having shifted the burden to the County and to the neighbors to attempt to achieve compliance by using enforcement procedures.

Fire Safety Is An Issue.

The haul road is narrow, steep and traverses forest land. The peak construction, and therefore rock hauling, season corresponds to the time that fire danger is highest in forested areas. To the best of our knowledge, the applicant has not addressed this safety issue. This impacts not only the forest lands along the road, but the safety of residents who live a short distance north of those forest lands, as forest fires can spread rapidly in dry weather, once ignited.

The Original Application Filed By The Applicant Recognized The Area Is Designated Big Game Range By The Lane County Comprehensive Plan. Yet, Contrary To The Direction Of The Goal 5 Rule, The Applicant Has Failed To Address The Impacts Of Its Operation And Roads On Elk.

Please find enclosed two published studies relating to elk, habitat and the effects of construction, road use, etc. on elk. They confirm many of the points made by wildlife biologist Holzhauser, in her assessment of the Bradford property and the proposed quarry activities.

For example, the Pedersen, Adams and Skovlin Study states that:

Elk avoid primary and secondary roads for a distance of one-quarter of a mile (400 meters). Citing their own research and also citing studies by Ward et al, by Hershey and Legge and by Rost and Bailey.

Elk use of an area declined in proportion to the increase in road density, travel intensity and season of road use. Hershey and Legge.

Pedersen et al conclude that roads indirectly remove 199 acres of elk habitat per mile of road, when roadside disturbance is considered.

Pedersen et al state: "A serious consequence of persistent disturbance is voluntary withdrawal from preferred habitat to less favorable habitat. The results can be overcrowding, decline in living conditions, less food, and more disease"

The supplemental letter from Holzhauser (dated March 2, 1999), previously submitted, notes that a possible effect of allowing a commercial quarry to operate at this location would be for elk to retreat to the farm land to the west, compounding the conflict that ODFW has been trying to address by controlled hunts.

The other study, by Holthausen, Wisdom, et al, states that to evaluate the effectiveness of a computer model of elk habitat quality, expert opinion of wildlife biologists was used.

Conclusion.

Apparently, the applicant would like you to believe there is little for you to decide. Time and again, the applicant has stated you cannot consider pertinent facts or said some other agency will take care of an issue.

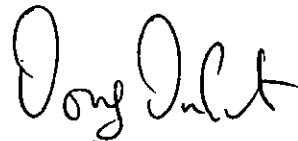
If the comprehensive plan amendment and zone change process is to be meaningful, the planning commission must retain the responsibility to ask and answer the hard questions that the applicant has been urging you not to address. The new Goal 5 rule is not as narrow as the applicant portrays it.

The applicant has declines to take responsibility for the effects of its proposed operation on road safety, on elk, on area residents, and on nearby farmland. If that is its position now, that, unfortunately, is likely to remain its position, if this application were to be approved.

The applicant has failed to demonstrate compliance with the relevant approval criteria and the application should be denied.

Respectfully submitted,

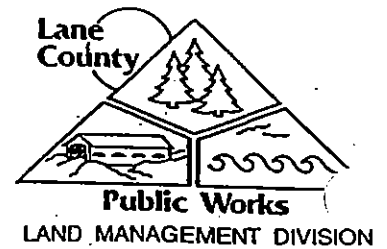
HUTCHINSON, ANDERSON,
COX, COONS & DuPRIEST, P.C.



Douglas M. DuPriest

DMD:hs
Encl

cc: Clients w/ encl
Jim Spickerman w/ encl



December 3, 1998

Ross H. Bradford TE et al.
82452 Bradford Road
Creswell, OR 97426

Concerning: TRS 19 02 19 Tax Lot 700
File: 8-9/89

REQUEST FOR VOLUNTARY CORRECTION

A violation of Lane Code 11.100-10 is occurring on the property located at 82452 Bradford Road, Creswell, Oregon, because a 1977, 14' x 66' Concord mobile home, X-139654, has been placed on the property with neither land use nor building and is being used as a residence.

Lane Code 11.100-10 requires a building permit for any mobile home sited in Lane County. Oregon Revised Statutes 455.450(1) and (2), 446.252, and 455.153 require that a building permit be obtained for any mobile home sited, placed, or stored on parcels and provides that Lane County may enforce this statutory requirement as if it were a local ordinance. Failure to obtain required permits is, therefore, a Lane County infraction subject to enforcement procedures under Lane Code 5.017.

The appraisal record obtained from Assessment and Taxation reveals that there is a 40 x 60 general purpose building on the property. The permit history reveals that a building permit was not issued from Lane County for this structure. Information also suggests that a 14' x 30' deck has been added to the structure referred to as the "old cabin" and may also require a building permit.

You are being asked to voluntarily comply with the Lane Code by submitting the required building permit application and paying the required fee to Lane County to allow the 1977, 14' x 66' Concord mobile home to remain on the property or remove the mobile home from the property. Lane County believes that 30 days should be more than sufficient to correct the violation. While this request is for voluntary compliance with the Lane Code, you should know that Lane County will not allow a continued violation of the law. If you do not correct the violation within 30 days you may receive an ORDER TO COMPLY. If you disobey an ORDER TO COMPLY you may become liable to pay a fine of up to \$1,000 per day as long as the violation continues.

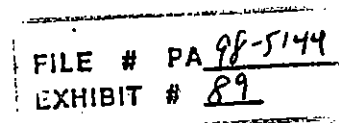
It is my understanding that the property has been listed for sale. I have spoken to the realtor and suggested that you may want to review the property file and appraisal records to determine which structures have been lawfully placed on this E40 parcel.

If you have any questions, please contact me at 682-3724.

Sincerely,

A handwritten signature in cursive script that reads "Jane Burgess".

Jane Burgess
Compliance Officer



OREGON DEPARTMENT OF
FISH AND WILDLIFE

**ELK MANAGEMENT IN
BLUE MOUNTAIN HABITATS**

by

Richard J. Pedersen, Project Leader
Oregon Department of Fish and Wildlife, La Grande, Oregon

A. W. Adams, Wildlife Biologist
Oregon Department of Fish and Wildlife, La Grande, Oregon

and

Jon Skovlin, Research Biologist
USDA Forest Service, Pacific Northwest Forest and Range
Experiment Station, La Grande, Oregon

A Report of the Research and Development Section
Oregon Department of Fish and Wildlife
P. O. Box 3503
Portland, Oregon 97208
1979

Financed in part by Federal Aid to Wildlife Restoration Funds under
Pittman Robertson Project W-70-R.

FILE # PA98-5144
EXHIBIT # 90

Recommendation:

Logging operations requiring tractor skidding, yarders, trucks, or other heavy equipment within the streamside zone should be prevented. Logging plans which specify felling and log removal on a selective basis and methods which do not disturb shallow soils, streambanks, or the associated vegetation should be prescribed. For additional comments concerning streams and streamside logging see Lantz (1971).

ROADS AND ELK

Roads affect elk in two ways; directly by removing elk habitat from production and indirectly by inducing a disturbance factor, vehicle traffic, which effectively reduces the availability of elk habitat adjacent to roads (Compton 1975, Perry and Overly 1977, Rost and Bailey 1974).

The direct removal of forested habitat by road surface area is a significant factor in northeast Oregon. According to the Forest Service Transportation Engineering Handbook 21.11-2, a single lane road is 6.7 m (22 ft) wide, including cut and fill. A double lane road is a minimum of 10.4 m (34 ft) in width. A single lane road 6.7 m (22 ft) wide removes 1.1 ha (2.7 ac) of land per 1.6 km (1 mile) from production and a road 10.4 m (34 ft) wide removes 1.7 ha (4.1 ac) per 1.6 km (1 mile). Sidhu and Case (1977) stated that roads permanently remove 5-10 percent of the productive cutover area from production at the time of first harvest and subsequent harvests could increase this loss.

Indirectly, roads remove an additional 80.6 ha (199 ac) of elk habitat per 1.6 km (1 mile) when the roadside disturbance zone is considered. The following formula can be used to calculate hectares (acres) of elk habitat removed from production:

$$K (RB + 2 \cdot RZ)$$

$$10,000 \text{ m}^2$$

$$K (RB + 2 \cdot RZ)$$

$$43560 \text{ ft}^2$$

Where (RB) is the width of the roadbed, (RZ) is the roadside zone avoided by elk, and K is the length of the road system involved.

During road construction and timber harvest, we found elk avoided using habitat adjacent to the disturbance area for a distance of 250 m (820 ft). Hershey and Leege (1976) demonstrated that elk avoided primary and secondary roads for a distance of 400 m (.25 mi) and that elk use of an area seemed to decline in proportion to the increase in road density, travel intensity, and season of road use. Ward et al. (1976) showed that elk preferred to stay 400 m (.25 mi) away from moving traffic on Interstate 80 and forest roads. Rost and Bailey (1974) showed that at 400 m (.25 mi) away from roads, pellet group density increased with higher correlation for paved and gravel roads than for dirt roads. Elk were displaced as far as 6.3 km (4 mi) by logging activity and topographic

³ We used the minimum documented figure of 250 m (820 ft).

barriers provided line-of-sight barriers between elk and logging activity (Montana Cooperative Elk Logging Study 1975). Open system roads and areas within 503 m (1,650 ft) of open system roads were not selected by elk, closed roads were selected for (Montana Cooperative Elk Logging Study 1977). Perry and Overly (1977) reported that elk use up to 805 m (1/2 mi) from the road edge increased 154 percent for paved roads, 108 percent for secondary roads, and 33 percent for primitive roads. Compton (1975) noted elk observed in the open responded to vehicles up to 805 m (1/2 mi) away, beyond this distance no significant flight reaction was noted.

There has been little work on the effect of disturbance on wild ungulate physiology. There is sufficient evidence to indicate that we should consider the direct and indirect effects of road construction, logging, vehicle harassment, and human harassment on elk physiology (Cupal and Ward 1976). Excitation and flight elevates metabolism and raises the cost of living, thus, competing directly for energy available for growth, lactation, or fat reserves. Disturbance during late pregnancy can be detrimental to calf birth weight, and it is known that below minimum birth weights calf survival is predictably poor (Thorne 1976). Cow elk with young at heel expend maximum energy in mid-summer when the cow must use energy for lactation, body maintenance, activity, and weight gain. A serious consequence of persistent disturbance is voluntary withdrawal from preferred habitat to less favorable habitat. The results can be overcrowding, decline in living conditions, less food, and more disease, all resulting in loss to the standing crop or potential productivity.

ROAD MANAGEMENT RECOMMENDATIONS

1. Conditions which independently or in combination constitute significant disturbance factors include road location, density of roads, use intensity, class of use, and season of use. Elk habitat requirements should be identified on a local basis and used as basic input to every transportation plan. Existing road systems should be evaluated to determine the feasibility of closure or abandonment. The intent of this suggestion is to increase available summer range, which is currently denied elk by persistent vehicle disturbance, and to reduce maintenance costs and discourage off-road travel. Results of the Chesnimus road closure study (Coggins 1976) suggest road closures can also be implemented during elk season to: (1) reduce elk harassment, (2) significantly affect hunter participation, (3) increase esthetics of elk hunting, and (4) possibly increase or decrease elk harvest rate over time.
2. It has been documented that during active road building, elk have moved .25 km to 4 km (0.15-2.48 mi) from the activity depending on topographic barriers, logging intensity, size of the area being logged, size and shape of the drainage, and season of logging. Planned timber sales on elk summer range should be confined to specific areas

- (drainages, ridges, etc.) for 1 year or less with reentry periods scheduled at minimum 5 year intervals. Alternate non-disturbance areas should be provided adjacent to active sales, recognizing that ridge lines (topographic barriers) are of prime importance in maintaining the integrity of the security area. Security areas should be closed to all entry which may require initiation of area closures. Security areas should be mutually agreed upon by regional biologists and timber management personnel after an on-the-ground examination.

3. During the Bobsled study, elk movement corridors (travel lanes) were identified and correlated to cover and minimum resistance zones (MRZ). A MRZ was defined as a topographic feature which offered the least amount of resistance to elk movements, i.e., canyon bottoms, saddles, ridgelines, contours. Elk travel lanes should be identified and used in the planning process for associated resource management.

Plans for road locations should include known elk movement corridors, and provision should be made to protect these movement lanes by: (1) maintaining security cover, (2) minimizing cuts and fills, (3) minimizing rights-of-way clearing, and (4) avoiding long road tangents.

4. Data from the Bobsled study demonstrated that streamside vegetation of the riverine forest was one of the most valuable elk habitats in the Blue Mountains.

Every effort should be made during the planning and on-the-ground survey phase to identify streamside zones, springs, seeps, and other mesic sites. These sites should be maintained free of road construction and logging which effectively removes this habitat from production (Fig. 18).

5. Natural meadows, important as forage areas, should be excluded from road construction. Roads built adjacent to meadows should be screened, either by distance or by vegetation of sufficient density to provide security cover for elk using these forage areas.

ACKNOWLEDGMENTS

We wish to extend our "thank you" to the USDA Forest Service, Umatilla, National Forest and the Pacific Northwest Forest and Range Experiment Station, Oregon State Department of Forestry, and the Northeast Region of the Oregon Department of Fish and Wildlife who provided the study area, office facilities, summer assistants, and equipment.

A special note of thanks must go to Bob Tarrant, Jack Ward Thomas, and Herb Rudolph of the USDA Forest Service for making this research possible, to Jim Brady, Oregon State Department of Forestry for his continual vigilance over the electronic equipment, and to Bill Brown (ret.) and Warren Aney of the Oregon Department of Fish and Wildlife, Northeast Region for their support and guidance.

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United States
Department of
Agriculture

Forest Service

Pacific Northwest
Research Station

Research Paper
PNW-RP-479
September 1994

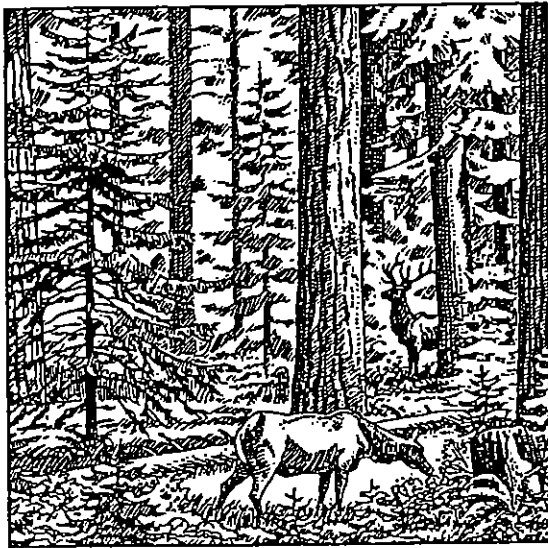
Using Expert Opinion to Evaluate a Habitat Effectiveness Model for Elk in Western Oregon and Washington

Richard S. Holthausen, Michael J. Wisdom, John Pierce,
Daniel K. Edwards, and Mary M. Rowland



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FILE # PA 98-5144
EXHIBIT # 91

Abstract

Holthausen, Richard S.; Wisdom, Michael J.; Pierce, John; Edwards, Daniel K.; Rowland, Mary M. 1994. Using expert opinion to evaluate a habitat effectiveness model for elk in western Oregon and Washington. Res. Pap. PNW-RP-479. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 16 p.

We used expert opinion to evaluate the predictive reliability of a habitat effectiveness model for elk in western Oregon and Washington. Twenty-five experts in elk ecology were asked to rate habitat quality for 16 example landscapes. Rankings and ratings of 21 experts were significantly correlated with model output. Expert opinion and model predictions differed for 4 of the 16 landscapes. Differences were most pronounced for habitats dominated by large expanses of either forage or cover.

Keywords: Elk, elk habitat, habitat effectiveness, habitat models, elk management, model validation, Roosevelt elk, validation research, expert opinion, western Oregon, western Washington.

Summary

Habitat effectiveness models are widely used by natural resource agencies to predict effects of management activities, especially timber harvest, on elk habitat. We evaluated such a model for elk in western Oregon and Washington by using expert opinion. Experts in elk ecology rated habitat quality, on a scale of 0 to 1.0, for 16 example landscapes depicted on computer-generated maps. Landscapes represented the full range of habitat conditions likely to occur within subwatersheds in western Oregon and Washington. Model output was then generated for the same landscapes.

The rankings and ratings from 21 of the 25 experts were correlated ($P < 0.05$) with model predictions, suggesting close agreement between expert opinion and model output. Scores of experts and the model differed ($P < 0.05$) for 4 of the 16 landscapes, however. Differences were most pronounced for three maps that represented habitats dominated by large expanses of either forage or cover. We conclude that current model output is a reliable indicator of expert opinion except in subwatersheds where the cover:forage ratio is less than 20:80 or greater than 80:20. In these cases, we recommend using expert assessments of habitat effectiveness as a substitute for model output. We also recommend additional testing, using a field-based standard of comparison, to refine and validate the model.

March 22, 1999

Lane County Planning Commission
Public Service Building
125 East 8th Avenue
Eugene, OR 97401

Re: PA 98-5144

Dear Commissioners:

The applicant has stated that there is no requirement to address public need when applying for a zone change from F1 – Non Impacted Forest Lands to QM – Quarry and Mine Operation. It is, however, worth noting that the applicant then states that “The quarry use will put a source of product in proximity to an area in which it will be needed, i.e., the Highway 58 improvement project.” The applicant further states “the application will make aggregate resource available close to an area where substantial road construction will take place in the near future, thus reducing fossil fuel use for transportation purposes.” These statements are misleading at best.

Discussions with owners of several local quarries have revealed that there are at least three existing quarries within very close proximity not only to the proposed quarry site, but also to the stated area in which it will be needed. These existing quarries meet all state and county standards for use on road construction projects. Since all three of the existing quarries are within such close proximity, the applicant’s statement concerning a reduction in fossil fuel use is without merit. In addition, there is a currently non-operational quarry within sight of the proposed quarry that may be available for future use.

Further, these existing quarries have approval from the county for transport of aggregate on local state and county roads. These roads do not go through dense rural residential areas and have already been tested and/or upgraded for this type of heavy truck traffic. The haul road for the non-operational quarry goes entirely through private forestland. In contrast, current reports show that the roads to be used by the applicant would need major upgrades (3 ½” to 4 ½” overlay, etc.) to meet standards for this type of traffic. The applicant assumes the county (taxpayers) would be responsible for the cost of these upgrades. I question the need for taxpayers to bear the cost of a project that supports ONE landowner at the expense of all others in the area.

Discussions with local quarry owners have also revealed that a source of rock for the Highway 58 project has already been identified. While final contracts may not be signed yet, it is widely known that rock for this project will come from two local quarries that are possibly even closer than the proposed quarry site. This also reveals that there is an abundance of aggregate within the immediate area. Again, I question the need for taxpayers to bear the cost of upgrading roads to support ONE landowner’s desire to create a source of aggregate that is completely unnecessary.

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The applicant concludes "there will be no site that is free of opposition and likely no site that will have less opposition than this site." The applicant fails to recognize that virtually ALL residents in the area oppose this zone change. The residents have identified several areas of DIRECT impact to safety and quality of life among others. This represents a significant amount of opposition to a proposed quarry for which there is clearly no need.

Sincerely,

J. Burgess
Dale Burgess

Dale and Jan Burgess
82613 Meadow Lane
Creswell, OR 97426

Diane Lane

Diane Lane
82841 Bradford Rd.
Creswell, OR 97426

March 19, 1999

Mining, as proposed, will require the use of explosives. The detonation of these explosives creates shock waves in the underlying rock. These waves alternately compress and expand the rock. To accommodate this process the rock breaks at weak points. These breaks are usually small cracks or fissures, many of which cannot be seen by the naked eye.

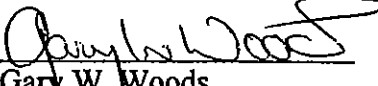
These small fissures lengthen and connect as more explosives are detonated. The cracks are often smaller than can be seen, but they are still large enough to pass water and whatever is suspended in it. Water acts under capillary action in this circumstance. Capillary action is when water will move through a narrow tube or length in opposition to other forces such as gravity. The water moves by, in essence, "crawling" up the sides of the tube. This is the way trees get water and minerals suspended in the water from the roots to the leaves. Gravity actually acts to assist capillary action in the case presented.

The proposed method of mining would create a body of water suspended in the crater with no possible runoff. This water would provide an ideal reservoir for the capillary action mentioned above to work from.

This body of water will become saturated with arsenic and heavy metal contained within the rock. This is known as "leaching". The leaching process is accelerated by increasing the surface area of the substance that is being leached from. The blasting also has the added effect of creating vast amounts of dust, much of which will fall into the pond in the crater. This has the effect of increasing the surface area of the rock in contact with the water and thus increasing the rate of leaching.

The network of fissures, through capillary action, connects the arsenic and heavy metal laden water of the crater's pond to the water table of the surrounding land. Gravity pulls the heavier elements and molecules down into the water table. Another force acting is that two connected bodies of water act to equilibrate, or come to the same concentration, with each other. This requires that either water move into the pond to dilute it or that heavy metals move into the water table to increase the concentration there. All of this leads to an increase in the concentration of heavy metals in the water table.

It is not known how connected the water tables in the area are, but the chances are high that there are vast interconnections due to the pervasiveness of water. Contaminating one water table in the area will, most likely, lead to the contamination of others.

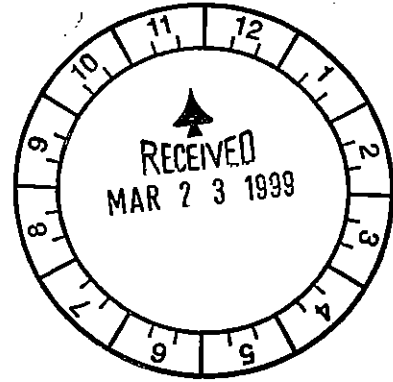

Gary W. Woods

FILE # PA 98-5144
EXHIBIT # 92

March 22, 1999

Lane County Planning Commissioners

Concerning: PA 98-5144
Zone change request by Bradford and BJ Equipment



Dear Commissioners:

Mr. Spickerman, the applicant's attorney, has informed you that you are "mandated" to approve this zone change. There are very clear provisions in the law that delineate exceptions to the "mandate" that Mr. Spickerman referred to in his testimony before the board. I would like to point out, in very simple language, 11 reasons why you are NOT mandated to recommend approval for this zone change from F-1/non-impacted Forestland to Quarry and Mine operations. These comments are written to consolidate and condense, while at the same time amplifying, the memorandum prepared by the Bear Creek Neighbors attorney after the first public hearing. The Applicant, in his initial rebuttal, did not reconcile any of these points. **The following points all continue to be valid reasons to deny the application.**

- I. Before land can be taken out of Forestlands (a Goal 4 Forest Designation) an Exception must be taken. The applicant claims that no Exception is needed. This is not true and is governed by the Oregon legislature, not LCDC. Until the Applicant addresses this requirement the application must be denied.
- II. The Applicant has not adequately addressed the impacts to other resources in the area. Statewide Land Use Goal 5 requires the applicant to identify and analyze the impacts to other goal 5 resources but this applicant continues to minimize and deny the impact. The applicant has attempted to denigrate a very comprehensive report from an expert witness concerning the impact of the quarry without any meaningful evidence as to why the report should not be considered valid. He calls the biologist's "unscientific" but goes on to quote the quarry operators on the same issue. The point is that there will be substantial loss of big game habitat if this quarry is approved and the applicant has failed to acknowledge or consider ways to minimize this impact on a competing Goal 5 resource. He has merely unilaterally decided that his resource (the rock) is more important than the wildlife.

Likewise, the loss of the forestland as "open space and scenic area" is also in conflict with another Goal 5 resource; this conflict is not acknowledged either.

- III. The Goal 5 rule states that the impact area for traffic analysis must include the nearest arterial and that conflicts regarding (among other things) sight distances need to be addressed. The applicant's traffic analysis does not encompass the nearest arterial and thus the file is not complete. Cloverdale is NOT an arterial; the traffic designer is in error. Further, the applicant disregarded the importance of the intersection of Bear Creek and S. Bradford. In light of this the community members had their own analysis done and found that the visibility is inadequate.

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EXHIBIT # 94