

#1

PLEASE PRINT LEGIBLY!

MEETING DATE June 13 94

NAME Sherwood Davis

ADDRESS 36250 SE Gordon Cir Rd.

STREET

Corbett, Ore.

CITY

97019

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # Howard Cragg
Rock Pt

SUPPORT ✓ OPPOSE

SUBMIT TO BOARD CLERK

#2

PLEASE PRINT LEGIBLY!

MEETING DATE 13 JUN 92

NAME CLINT DAVIS

ADDRESS 40601 E Larch mt Rd

STREET CORBETT OR 97019

CITY ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # HOWARD
CANYON

SUPPORT ✓ QUARRY OPPOSE _____

SUBMIT TO BOARD CLERK

#3

PLEASE PRINT LEGIBLY!

MEETING DATE 6-13-94

NAME ALLAN BAKER

ADDRESS 71301 SEGORDON RD.

STREET
Corbett OR 97019
CITY ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # 94-95
Howard Canyon

SUPPORT ✓ QUARRY OPPOSE
SUBMIT TO BOARD CLERK

#4

PLEASE PRINT LEGIBLY!

MEETING DATE 6/13/94

NAME Gerard A Welch

ADDRESS 38695 Trout Creek Rd

STREET

Corbett, Rd Corbett

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # HOWARD
CANYON

SUPPORT X QUARRY OPPOSE _____
SUBMIT TO BOARD CLERK

#5

PLEASE PRINT LEGIBLY!

MEETING DATE 6/13/94

NAME John Windy St

ADDRESS 2207 N E Corbett Hill

STREET
Corbett one 97019
CITY **ZIP CODE**

I WISH TO SPEAK ON AGENDA ITEM # Howard Canyon

SUPPORT ☒ **OPPOSE** ☐
SUBMIT TO BOARD CLERK

#6
PLEASE PRINT LEGIBLY!

MEETING DATE 6/13/94

NAME DAN HERNBERG

ADDRESS 1200 Bank of California Tower

STREET 707 S.W. Washington

Portland, OR 97205

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # Harvard
Canyon

SUPPORT ✓ OPPOSE

SUBMIT TO BOARD CLERK

#7

PLEASE PRINT LEGIBLY!

MEETING DATE 6-13-94

NAME RAYMOND SMITH

ADDRESS P.O. BOX 183 "40162 SE HOODON RD
STREET
CORBETT, ORE. 97019
CITY **ZIP CODE**

I WISH TO SPEAK ON AGENDA ITEM # HOWARD CANYON

SUPPORT X **OPPOSE** QUARRY OWNER
SUBMIT TO BOARD CLERK

#8

PLEASE PRINT LEGIBLY!

MEETING DATE

6/13/94

NAME

Charlie Cizek / Metro

ADDRESS

600 NE Grand Ave

STREET

Portland, OR

97212

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Recon Repr

SUPPORT

OPPOSE

✓

SUBMIT TO BOARD CLERK

#9

PLEASE PRINT LEGIBLY!

MEETING DATE June 13, 1994

NAME

Neil Kagan

- FRIENDS OF FOREST PARK

ADDRESS

522 SW 5th, #1050

STREET

Portland

CITY

97204

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Howard Canyon

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

#10

PLEASE PRINT LEGIBLY!

MEETING DATE

6-13-94

NAME

Mary Heyne

ADDRESS

41101 SE Condon Rd.

STREET

Carlson

97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Howard Canyon

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

X

11

PLEASE PRINT LEGIBLY!

MEETING DATE

6/13/94

NAME

Michael Gama

ADDRESS

37737 SE Howard Rd.

STREET

Corbett, OR 97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Open Pit
Mining

SUPPORT

OPPOSE

☒

SUBMIT TO BOARD CLERK

PLEASE PRINT LEGIBLY!

MEETING DATE June 13 '94

NAME Dave Black

ADDRESS 2025 S.E. Littlepage Rd.

STREET Corbett, OR. 97019-9718
CITY **ZIP CODE**

I WISH TO SPEAK ON AGENDA ITEM # Howard Canyon

SUPPORT _____ **OPPOSE** ☒ quarry

SUBMIT TO BOARD CLERK

#13

PLEASE PRINT LEGIBLY!

MEETING DATE 6-13-94

NAME Carol Gama

ADDRESS 39737 S.E. Howard Cyn Rd.

STREET

Corketts OR 97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # Howard Cyn

SUPPORT _____ **OPPOSE** ☒ QUARREN
SUBMIT TO BOARD CLERK

#14

PLEASE PRINT LEGIBLY!

MEETING DATE 6/13/94

NAME

RON CARLEN

ADDRESS

PORTLAND AUDUBON Soc.
STREET

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # HOWARD
CANYON

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

#15

PLEASE PRINT LEGIBLY!

MEETING DATE

6-13-94

NAME

LYN MATTEI - OR Nat'l Resources

ADDRESS

522 SW 5th Suite 1050

STREET

PORTLAND OR 97204

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Reconciliation

SUPPORT

OPPOSE

X w/ reservations

SUBMIT TO BOARD CLERK

#16

MEETING DATE

NAME

ADDRESS

STREET
CORBETT OR 97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

#17

PLEASE PRINT LEGIBLY!

MEETING DATE

6-13-94

NAME

Carolyn L. Coons

ADDRESS

41101 SE Louder Rd

STREET

Corbett, OR

97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Howard Canyon

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

PLEASE PRINT LEGIBLY!

MEETING DATE 6-13-94

NAME JEFF ROGERSON

ADDRESS 38228 KNIERIEM

STREET CORBETT OR 97019
CITY ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # Howard

SUPPORT _____ **OPPOSE** X Cyn.
SUBMIT TO BOARD CLERK

#19

PLEASE PRINT LEGIBLY!

MEETING DATE

6-13-94

NAME

Steve Dixon

ADDRESS

32950 Bell Road

STREET

Corbett, OR 97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Brewer Canyon

SUPPORT

OPPOSE

5

SUBMIT TO BOARD CLERK

#20

PLEASE PRINT LEGIBLY!

MEETING DATE

June 13, 1994

NAME

Kerrie Okada

ADDRESS

37925 E. Kniemem Rd.

STREET

Corbett, OR 97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Howard Canyon

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

#21

PLEASE PRINT LEGIBLY!

MEETING DATE 6/13/94

NAME Nancy Webb

ADDRESS 745 SE Littlepage
STREET

against Corbett
CITY

increase rock quarry ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # HOWARD
CANYON

SUPPORT _____ OPPOSE L

SUBMIT TO BOARD CLERK

#22

PLEASE PRINT LEGIBLY!

MEETING DATE

6/13/94

NAME

Diane Tribe

ADDRESS

41905 SE LOUDEN

STREET

Corbett

97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Howard Canyon

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK



#23

PLEASE PRINT LEGIBLY!

MEETING DATE 6-13-94

NAME JAMES ANDERSON

ADDRESS 37915 SE HOWARD RD
STREET

CORRETT OR 97019
CITY ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # HOWARD
CANYON

SUPPORT _____ OPPOSE ☒ QUARRY

SUBMIT TO BOARD CLERK EXPANSION
TRANSPORTATION

#24

PLEASE PRINT LEGIBLY!

MEETING DATE

6-13-94

NAME

Jim Reavis

ADDRESS

33045 S.E. HURLBURT

STREET

CORBETT

CITY

97019

ZIP CODE

HOWARD

I WISH TO SPEAK ON AGENDA ITEM #

CANYON

SUPPORT

OPPOSE

X

SUBMIT TO BOARD CLERK

#25

PLEASE PRINT LEGIBLY!

MEETING DATE June 13 '94

NAME Susan Fry

ADDRESS 173 N.E. Littlepage Rd
STREET

Corbett 97019
CITY **ZIP CODE**

I WISH TO SPEAK ON AGENDA ITEM # Howard Can

SUPPORT _____ **OPPOSE** X

SUBMIT TO BOARD CLERK

#24

PLEASE PRINT LEGIBLY!

MEETING DATE 6/13/94

NAME Vera Dafoe

ADDRESS 9449 SW 62 Dr.

STREET Portland OR 97219

CITY ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # Howard Canyon

SUPPORT OPPOSE ☒

SUBMIT TO BOARD CLERK

#27

PLEASE PRINT LEGIBLY!

MEETING DATE 6-13-94

NAME Lloyd Hammel

ADDRESS 501 SALZMAN

STREET

Corbett ORE 97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # Howard canyon

SUPPORT _____

OPPOSE _____

SUBMIT TO BOARD CLERK

✓ Quarry
expansion

#28

PLEASE PRINT LEGIBLY!

MEETING DATE 6-13-94

NAME

Jim Swenson

ADDRESS

38909 Hist. Columbia River Hwy.
STREET

Corvallis, OR
CITY

97019
ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

Howard Canyon

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

✓ ^{Quarry} Expansion

PLEASE PRINT LEGIBLY!

MEETING DATE

6/13/94

NAME

Priscilla Goodwin

ADDRESS

32950 Bell Rd

STREET

Corbett OR 97019

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

HOWARD

SUPPORT

OPPOSE

CANYON
Quarry

SUBMIT TO BOARD CLERK

EXPANSION

#30

PLEASE PRINT LEGIBLY!

MEETING DATE

6/13/94

NAME

STEVE OULMAN

ADDRESS

DLCD - 1175 Court St. NE

STREET

SALEM OR 97310

CITY

ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM #

SUPPORT

OPPOSE

SUBMIT TO BOARD CLERK

#31

PLEASE PRINT LEGIBLY!

MEETING DATE June 13, 1994

NAME Lori Hansen

ADDRESS 37925 E. Kniecreek Rd.
STREET

Corbett, OR 97019
CITY ZIP CODE

I WISH TO SPEAK ON AGENDA ITEM # Howard Canyon
Quarry

SUPPORT _____ OPPOSE X
SUBMIT TO BOARD CLERK

STATEWIDE PLANNING PROGRAM

GOAL 5 PROCESS CHART

OPEN SPACE
MINERAL & AGGREGATE
ENERGY SOURCES
FISH & WILDLIFE
SIGNIFICANT NATURAL AREAS
SCENIC VIEWS & SITES
WATER AREAS
WILDERNESS AREAS
HISTORIC SITES
CULTURAL AREAS
RECREATION TRAILS
SCENIC WATERWAYS

**STEP ONE -
IS THE RESOURCE
SIGNIFICANT?
(USING MEASURES OF
LOCATION, QUALITY,
AND QUANTITY)**

1A - NO

1B - NOT ENOUGH INFORMATION

1C - YES

GO TO STEP TWO

**NO FURTHER
ACTION**

**ESTABLISH TIME FRAME
FOR OBTAINING INFORMATION**

**STEP TWO - ARE
THERE CONFLICTING
USES?
(EITHER OTHER
RESOURCES OR
ALLOWED BY ZONING)**

2A - NO

**PRESERVE THE
RESOURCE**

2B - YES

**DO "ESEE" ANALYSIS
GO TO STEP THREE**

**STEP THREE - HOW
SHOULD CONFLICTS
BETWEEN USES BE
RESOLVED?**

3A - PRESERVE THE RESOURCE

**3C - LIMIT CONFLICTING USES
(BALANCE)**

3B - ALLOW CONFLICTING USES

Howard Canyon Reconciliation Report

- Howard Canyon Mineral & Aggregate
- Streams (Knieriem, Howard Canyon and Big Creek)

Significance

Level of
Protection

Protection
Program

West Hills Reconciliation Report

- Scenic Resources
- Stream Resources
- Wildlife Habitat
- Angell Brothers Mineral & Aggregate

Significance

Level of
Protection

Protection
Program

OVERALL CONCLUSIONS

Howard Canyon

- Streams (Knieriem, Howard Canyon & Big Creeks) — "3-C"
- Aggregate — "3-C"

West Hills

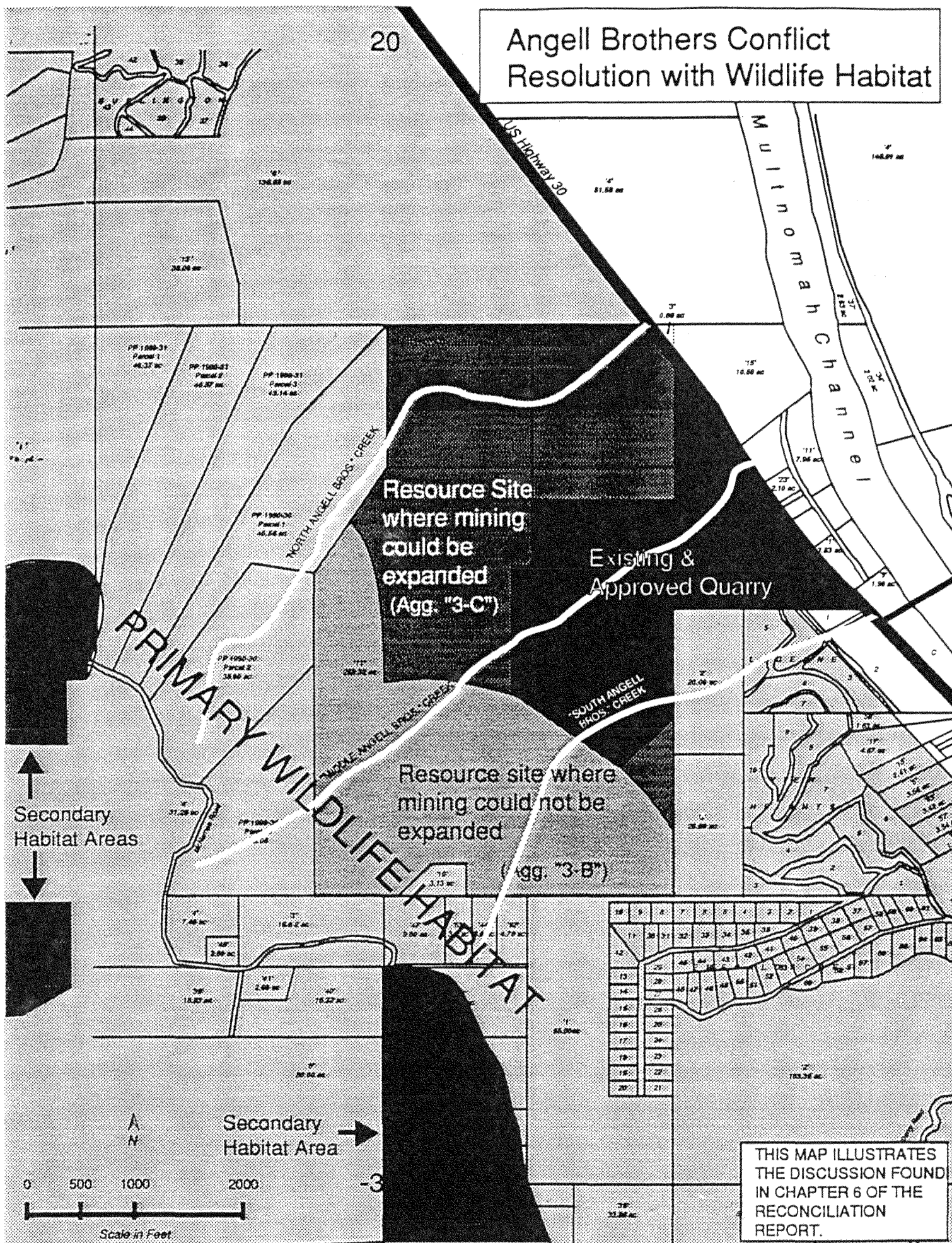
- Scenic — "3-C"
- Streams — "3-C"
- Wildlife — "3-C"
- Aggregate — "3-B" for approximately south one-half
"3-C" for approximately north one-half

OVERALL CONCLUSIONS

HOWARD CANYON

- Streams (Knierem, Howard Canyon & Big Creeks "3C") -- Find that these streams are significant ("1-C"), and limit residential, community service and conditional use, and transportation/public improvement conflicts by regulating proposed development in the riparian zone of each significant stream.
- Aggregate (Howard Canyon Quarry "3C") -- Find that it is significant ("1-C") and that:
 - 1) Conflicts with residential uses can be resolved by adopting plan and overlay zoning designations which require some restrictions on new houses, such as setbacks from potential mining areas, and require some restrictions on mining operations in order to meet DEQ noise and dust standards for existing residences, minimize visual impacts, and minimize blasting impacts.
 - 2) Conflicts with significant streams can be resolved by requiring that mining runoff meet DEQ standards for water quality and prohibiting construction of holding ponds in the riparian zone.
 - 3) Multnomah County will require independent ongoing verification that noise, dust, and water quality standards are being met by mining operations.

Angell Brothers Conflict Resolution with Wildlife Habitat



OVERALL CONCLUSIONS

WEST HILLS

- **Scenic** (East face of the West Hills "scene areas" "3C") -- Find that scenic views are significant ("1-C") and limit residential, community service and conditional use conflicts by reviewing and regulating the siting and design of new structures within the scene areas.
- **Streams** (26 West Hills Streams "3C") -- Find that 26 West Hills streams are significant ("1-C") and limit residential, community service and conditional use, and transportation/public improvement conflicts by regulating proposed development in the riparian zone of each significant stream except for "North Angell Brothers" Creek within the Angell Brothers aggregate site, which is not protected ("3-B").
- **Wildlife** (West Hills "3C") -- Find that wildlife habitat in the West Hills is significant ("1-C") and limit residential and similar uses by reviewing and regulating the siting of proposed development to have minimal impact upon wildlife and its habitat.
- **Aggregate** (Angell Brothers Quarry, Northern 1/2 "3C" and southern 1/2 "3B") -- Find that it is significant ("1-C") and that:
 - 1) Conflicts with residential uses can be resolved by adopting plan and overlay zoning designations which require some restrictions on new houses, such as setbacks from potential mining areas, and require some restrictions on mining operations in order to meet DEQ noise and dust standards for existing residences, minimize visual impacts, and minimize blasting impacts.
 - 2) Conflicts with streams can be resolved by allowing quarry operations on a portion of the North Angell Brothers stream, but protecting water quality into Burlington Bottoms to DEQ standards.
 - 3) Conflicts with scenic views can be resolved by requiring quarry operations to use berming and reclamation techniques which minimize the amount of unreclaimed mined area visible at any one time.
 - 4) Conflicts with wildlife habitat can be resolved by not allowing quarry operations on the south half of the Angell Brothers aggregate site, in order to preserve a minimum one-half mile wide contiguous wildlife habitat area through the West Hills
 - 5) Multnomah County will require independent ongoing verification that noise, dust, and water quality standards are being met by mining operations

June 10, 1994

DEPARTMENT OF
LAND
CONSERVATION
AND
DEVELOPMENT

Multnomah County Board of Commissioners
Multnomah County Planning Commission
2115 SE Morrison Street
Portland, OR 97214

Dear Chair Stein, County Commissioners, Chair Yoon and Planning Commissioners:

Since LCDC approved Multnomah County's periodic review work program for resolving Goal 5 issues, the department has worked closely with the county planning staff. We have offered advice about the requirements of the statewide planning goals. We have suggested approaches and opportunities available to Multnomah County to make the policy decisions before you. Please consider these comments in your deliberations.

First, we are concerned with the county treating these hearings as quasi-judicial proceedings. To our knowledge, you have treated no other aspect of periodic review in this way. The issues before you are complex and affect significant areas of the county. The department believes a satisfactory conclusion to this controversy demands a broad view that cannot be achieved by focussing on one or two specific land uses in the narrow confines of a quasi-judicial proceeding.

Second, we are continuing to review and analyze the county's written reports. We will watch how the analyses evolve as the county works towards its September 6, 1994 deadline to submit a completed product. After this date, the department will review the work for compliance with Goal 5.

Finally, we ask you to consider three comments about the analyses. One, the county should be clear about its identification of significant resources, and why the resources are significant. Two, the level of protection for any resource must be commensurate with the identified conflicts and the consequences of these conflicts on protection of the resource. Three, the county needs to examine thoroughly opportunities to mitigate conflicts between resources.

We are able to help your staff with the Goal 5 analyses and development of appropriate implementation tools. Steve Oulman is the department's lead staff person for this project. Call him at 378-5144 if you have questions.

Sincerely,



Richard P. Benner
Director

Barbara Roberts
Governor



1175 Court Street NE
Salem, OR 97310-0590
(503) 373-0050
FAX (503) 362-6705

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON**

In the Matter of Adopting Hearing Rules)
for the Conduct of a Joint Planning)
Commission and Board Quasi judicial)
Hearing on June 13, 1994)

RESOLUTION

94 -95

WHEREAS, ORS 197 requires the Land Conservation and Development Commission to Review the Multnomah County Comprehensive Framework Plan periodically to determine consistency with the State Land Use Goals; and

WHEREAS, the Land Conservation and Development Commission reviewed in April 1993 the Multnomah County Comprehensive Framework Plan and determined it did not comply with State Land Use Goal 5; and

WHEREAS, the Land Conservation and Development Commission required Multnomah County to complete Goal 5 work by December 31, 1993 and subsequently approved a detailed work Program extending the County's deadline to September 6, 1994; and

WHEREAS, the Land Conservation and Development Commission approved a work program which requires the Multnomah County Planning Commission and Board to conduct a Hearing to consider two "Reconciliation Reports"; and

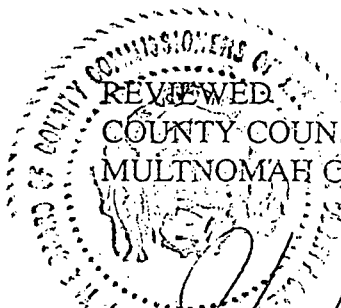
WHEREAS, both the Multnomah County Planning Commission and Board have adopted rules for the conduct of quasi judicial hearings; and

WHEREAS, the Board must amend their rules to hold a hearing with the Planning Commission;

NOW, THEREFORE, IT IS RESOLVED for the June 13, 1994, joint hearing of the Planning Commission and Board of County Commissioners on the two Reconciliation Reports, or any continuation thereof, the **RULES FOR THE CONDUCT OF PLANNING COMMISSION AND BOARD OF COUNTY COMMISSIONERS JOINT QUASI-JUDICIAL HEARING** as set forth in Exhibit "A" are hereby adopted.

APPROVED this 24th day of May, 1994

MULTNOMAH COUNTY, OREGON



COUNTY COUNSEL FOR
MULTNOMAH COUNTY, OREGON

By John L. Dubay
John L. Dubay, Deputy County Counsel

By

Beverly Stein
Beverly Stein
Multnomah County Chair

Exhibit "A"
**RULES FOR THE CONDUCT OF PLANNING
COMMISSION AND BOARD OF COUNTY
COMMISSIONERS JOINT QUASI-JUDICIAL HEARING**

SECTION 1. NATURE AND CONDUCT OF HEARING

A. Parties are entitled to an opportunity to appear, in person or by a representative or Counsel, to present and rebut testimony and evidence to an impartial approval authority, to have the proceedings recorded and to receive a written decision which includes Findings of Fact and Conclusions based on the record made at the hearing.

B. The following persons are parties and shall be entitled, either themselves or through their representatives or Counsel, to make an appearance of record before the Board of Commissioners and the Planning Commission:

1. All persons entitled to individual mailed notice under the applicable Ordinance; and
2. Other persons who demonstrate an interest in the proposed action.

C. The Board of Commissioners or the Planning Commission may call as a witness a person with technical or specialized knowledge regarding an issue in an action.

D. No person shall testify without:

1. Receiving recognition from the Chair of the County Commissioner;
2. Stating his or her full name and residence address; and
3. If requested, stating the basis on which he or she is entitled to status as a party, pursuant to these Rules or as a witness on behalf of a party pursuant to these Rules.
 - (a) A challenge to the party or witness status of a person, and a ruling thereon by the Chairperson, shall be made at the time the person requests recognition to testify.
 - (b) A challenge to the party or witness status of a person may be made only by a party.

E. There shall be no audience demonstration, such as applause, cheering, display of signs, or other conduct disruptive of the hearing. Disruptive conduct may be cause for expulsion from the hearing, termination of the hearing, or other appropriate action.

F. The term person includes an individual, partnership, corporation, association, governmental unit or public or private organization.

SECTION 2. CONFLICT OF INTEREST: BIAS, EX PARTE CONTACT

A. Any actual or potential conflicts of interest, bias or partiality shall be disclosed at the hearing where the action is considered.

B. Any party may challenge the impartiality of any member before or during the hearing. A challenge must include the facts relied on by the challenging party, relating to the member's alleged bias, prejudice, or personal interest, or other facts from which the party has concluded that the member cannot participate in a decision in an impartial manner.

C. In the event of a challenge for bias, the challenged member shall respond in a statement which shall be part of the record. The statement shall refer to the challenge and include the reasons why the member has elected to participate or abstain. The statement shall not be subject to cross examination or rebuttal.

D. In the event any member has pre-hearing *ex parte* contact with a party, the member shall publicly disclose the occurrence and the substance of such contact and the persons involved. The statement shall also indicate any interest or independent knowledge of the member. The term independent knowledge refers to facts received by other than public means which are not capable of judicial or official notice, are not in the record of the action and are not a matter of general knowledge. The statement shall be made at the beginning of the hearing on the action or at such time during the course of the hearing that the member becomes aware of the existence of an *ex parte* contact or independent knowledge. The statement regarding *ex parte* contact shall be subject to the same Rules as for a statement of bias in paragraph (C) in this section.

SECTION 3. QUORUM and PRESIDING OFFICER

A. A quorum of the Planning Commission and a quorum of the Board of Commissioners shall constitute a quorum for the joint meeting.

B. The Presiding Officer of a joint meeting shall be the Chair of the County Commission or a person designated by the Chair.

SECTION 4. RULES OF EVIDENCE

A. Evidence received at a hearing shall be of the quality that reasonable persons rely on in the conduct of everyday affairs.

B. Irrelevant, immaterial or repetitious testimony or evidence shall not be admitted.

SECTION 5. ORDER OF PROCEDURE

The order of procedure shall be as follows.

A. Call the session to order.

B. Call for the Staff Report relating to actions previously decided, if appropriate. And list the applicable and substantive criteria governing the action.

C. Summarize the nature and conduct of the hearing as described in these Rules and explain where the public can obtain copies of the Rules of Procedure and the Agenda.

D. Explain the sequence of events to be followed at the hearings as described in Subsections (F) through (O) of this Section.

E. Instruct the audience that only testimony or evidence directed to the approval criteria will be accepted and that failure to raise an issue with sufficient specificity to afford the Commission and the parties an opportunity to respond to the issue precludes appeal to LUBA on that issue.

F. Call the first Agenda item and describe the Action.

G. Request a representative of the Division of Planning and Development to describe the nature of the proposal, explain any graphic or pictorial displays which are to be part of the record and summarize the Staff Report and Recommendation.

H. Call for the presentation by Proponents of the Action.

1. Those testifying in support of an action have three minutes per person, exclusive of time used by the Board and Planning Commission for questions. Additional time shall only be granted if the evidence/testimony is not repetitious, irrelevant, or immaterial.
2. Proponents shall be heard in the following order.

- (a) Representatives of agencies or interested governments,
- (b) Persons receiving notice of the hearing.
- (c) Neighborhood associations, organizations or other groups.
- (d) Persons not entitled to receive notice of the hearing but who demonstrate to the Approval Authority that they have an interest in the action.

I. Call for the presentation by opponents of the Action.

- 1. Those testifying in opposition to an application have three minutes per person, exclusive of time used by the Board and Planning Commission for questions. Additional time shall only be granted if the evidence/testimony is not repetitious, irrelevant, or immaterial.
- 2. Opponents shall be heard in the following order.
 - (a) Representatives of agencies or interested governments,
 - (b) Persons receiving notice of the hearing.
 - (c) Neighborhood associations, organizations or other groups.
 - (d) Persons not entitled to receive notice of the hearing but who demonstrate to the Approval Authority that they have an interest in the action.

J. Provide opportunity for a representative of the Division of Planning and Development to add to or clarify the factual information presented.

K. Close the public portion of the hearing and accept requests for continuances and the opportunity to submit additional evidence as provided in ORS 197.763(4)(b) and (6).

SECTION 6. RECORD OF PROCEEDINGS

A. The proceedings of the Board and Planning Commission shall be electronically or stenographically recorded.

B. In the manner provided by ORS 192.105-192.170, the Division of Planning and Development may dispose of physical and documentary evidence not claimed by the person identified sixty days after notice that the evidence may be claimed has been mailed to such person.

SECTION 7. PUBLICATION OF RULES

These Rules shall be placed on record with the Division of Planning and Development and the Clerk of the Board of County Commissioners and copies shall be made available to the public at all joint hearings of the Board and Planning Commission.

SECTION 8. AMENDMENT AND SUSPENSION OF RULES

A. Any Rule of Procedure not required by law may be amended, suspended, or repealed at any hearing by majority of those present.

B. A procedural rule may be adopted to regulate a situation not provided for in these Rules or in County Ordinances.

SECTION 9. RELATIONSHIP WITH OTHER RULES

These Rules supercede other Board and Planning Commission rules.

SECTION 10. DECISIONS

Following the joint hearing, the Planning Commission and Board of County Commissioners will make their separate decisions in accordance with MCC §11.05.300 through MCC §11.05.400.

GUARDIANS OF LARCH MOUNTAIN

P.O. Box 185
CORBETT, OR 97019
503 695-3412

April 22, 1994

Ex parte
contact
CO Kelley

Multnomah County
Division of Planning
2115 SE Morrison
Portland, OR 97214

6/13/94

COMMENTS: SIGNIFICANT AGGREGATE RESOURCE ANALYSIS - HOWARD CANYON

Our comments are primarily focussed on the origin, description and validity of the Impact Area and its substantial consequences throughout the entire analysis report.

County staff chose an impact area of 1200 ft. surrounding the Howard Canyon aggregate site by applying data from a 'noise assessment study'. The study concludes that noise generated by mining equipment operated at the quarry site would be within DEQ noise standards at a distance of 1200 ft. from the site.

The 'noise assessment study' used by County staff (pg.6 of report) was ordered, paid for and submitted to the county by the Howard Canyon quarry owner during the 1990 Goal Five periodic review. Its intent was to provide supporting data for allowing a commercial mining operation on the site.

Noise data for the analysis report came exclusively from this study (Standlee report Re: Howard Canyon, 2-19-1990). Multnomah County Planning staff justifies its determination of a 1200 ft. impact area: "At receiver point 5 the sound levels...did not exceed the DEQ noise standard". Staff further states, that these noise levels were "based upon the mining equipment located in the center of the resource on both the north and south side." (both quotes pg.6).

We find it unacceptable that Multnomah County planning staff:

- * did not disclose that the "report by a Registered Acoustical Engineer" (pg.20) was in fact a four year old opinion by a paid consultant who was hired by the quarry owner to help him in his efforts to achieve commercial operation permit.

- * did not disclose the fact that no noise measurements including "mining equipment"

noise measurements were ever conducted! The noise-consultant for the quarry owner openly admits: "Sound levels that would radiate from an operation located at the Howard Canyon site were *predicted using a computer program...*" and: "Sound level data for *typical quarry equipment* used in large commercial operations was used in our *model...*" (1990 Standlee report, pg.4,5, italics added)

- * made no efforts during the last four years to verify any of the opinions submitted by the consultant to the quarry owner.

- * made no efforts to order an independent noise analysis from a source not connected to the quarry operator, despite the all-important consequences of noise data interpretation for this analysis report.

Staff brushes aside the concerns of residents affected by noise despite the fact that the 1990 periodic review by the county resulted in a "3B" designation for the quarry site, mainly because of noise impact on surrounding residences.

Staff uses the unsubstantiated opinions by the acoustical consultant for the quarry owner throughout the ESEE findings, because "the County accepts Mr. Stadlee's report as credible expert testimony" (pg.22). As a result conflicting use evaluations which deal with quarry noise have a predictably biased outcome, and sometimes border on the absurd:

Reduction in property value as a result of unacceptably high noise impacts could not possibly occur, because "no convincing evidence in support of that position has ever been presented to the County" (pg.20). It is ludicrous to assume a potential buyer for two homes of equal sale price, one close to a commercial quarry operation, the other far away from it, would not choose the home far away from blasting and truck noise, dust, etc. As a consequence of lower demand, the price of the unsold home is invariably driven down.

No negative economic or social effects on nearby residences is acknowledged because "expert testimony has demonstrated that noise levels associated with a mining plan...will produce noise levels at any nearby residence well below the DEQ noise standards" (pg.21), and because "Registered Professional Engineer (acoustical) Mr.Standlee has determined that noise from blasting, machinery and rock crushing will be well within DEQ standards as measured at existing dwellings in the area" (pg.22).

The only other "expert" used by the county to evaluate streams as conflicting uses in the ESEE analysis is another paid consultant for the quarry owner, Robert Ellis, biologist. Predictably, the conclusion he offers (and staff accepts, without verification or additional testimony by unbiased parties) finds no significant environmental effect on conflicting uses of streams if aggregate resource is fully allowed (pg.24, 25).

The inventory process for Statewide Planning Goal Five begins with the collection of available data from as many sources as possible (OAR 660-16-000 -1). Since the last periodic review for Howard Canyon aggregate site in 1990, Multnomah County has

made little effort to add unbiased expert testimony or alternative expert opinions for inclusion in the Resource Analysis Report. Instead, the County agrees to impact areas which were drawn up by an 'expert witness', a consultant of the quarry owner, who was paid to consult and give expert testimony on his behalf. The county also relies heavily on another paid consultant to the same party for conflicting use and ESEE analysis.

The County's decision of basing impact area- and analysis determinations on opinions which were presented to advance the quarry owner's cause is unacceptable. The county violates OAR 660-16. The Howard Canyon Significant Analysis Report (C2-94) must be rejected as invalid.

Sincerely,

A handwritten signature in black ink, appearing to read 'Klaus Heyne', written over a horizontal line.

For the Guardians Of Larch Mountain: Klaus Heyne

cc: D.L.C.D.

6/13/94 BCC/PC JOINT HEARING

SHARON TIMKO SUBMITTAL

6/3/94 HOWARD CANYON QUARRY
SITE VISIT

6/10/94 ANGELL BROTHERS QUARRY
SITE VISIT

SONY

Insert this side into the VCR



Do not touch the tape inside

VIDEO

6/13/94 BCC/PC JOINT HEARING

JEAN ADAMS SUBMITTAL ON BEHALF
OF JACK SANDERS

ANGELL BROTHERS QUARRY

6/13/94
Submitted By
Co. Sharron Kelley

Bob & Nev Scott
31700 Columbia River Hwy.
Troutdale, Oregon 97060
June 3, 1994

Commissioner Sharron Kelly
1120 SW 5th
Portland, Oregon 97204

Attention: Robert Trachtenberg

Dear Robert;

Re: Rock Quarry on Howard Canyon in Corbett

Per our conversation this afternoon, here are the copies I promised.

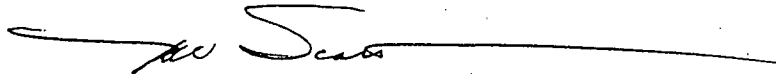
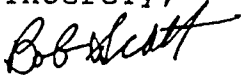
The Corbett area stands to gain by having this small quarry increase tonnage, and 50,000 tons per year does not even approach what the NEMCCA "scare" card suggests as being a "large industrial rock quarry"!

We have been to the site, and see no reason for not granting this. The operation is well contained in so far as noise and dust is concerned, it does not endanger the waterways in the area, and there are two roads to it that connect to multiple roads.

Corbett is building a school that will require many tons of rock. There is no reason the local residents need pay more to transport the rock from Washington, and impact the fragile old Columbia River Highway, when the product is locally available.

Please enter this letter into the record in support of increasing Mr. Smith's operation.

Sincerely,



Bob & Nev Scott
695-2553

A LARGE INDUSTRIAL ROCK QUARRY IN CORBETT ???

A proposed commercial mining operation in Howard Canyon could have great impact on our roads and property values!

The mining of several million tons of rock over many years could mean:

- ◆ AS MANY AS 48 TRUCKS A DAY, or ONE TRUCK EVERY 10 MINUTES, on CROWN PT. HWY. between CORBETT and TROUTDALE, on HURLBURT, LITTLEPAGE, KNIERIEM, and HOWARD Roads ... and on roads and bridges that connect to these roads!
- ◆ NOISE and DUST from ROCK BLASTING AND CRUSHING!
- ◆ NO LOCAL ENFORCEMENT: traffic, safety, noise, streams and wildlife..... Only state agents will regulate the impacts of a large commercial quarry!

MULTNOMAH COUNTY WILL DECIDE IN 90 DAYS WHETHER THE PRESENT OPERATION CAN EXPAND TO AN INDUSTRIAL SIZE QUARRY...
ARE YOU CONCERNED ???

Come to the NEMCCA Meeting
Wednesday May 25, 1994, 7pm Corbett Middle/High School MPB
Invited Guests: Quarry owner & County officials

Robert
This is a copy of the card
that 2 of the board
member drafted -
and show pretty well
the reason why
for so
farious

June 12, 1994

To the County Board,

My name is John Windust and I live at 2207 N.E. Corbett Hill Road in Corbett, Oregon. I am writing this letter in support of Raymond Smiths application for additional rock product to be mined at the Howard Canyon Quarry.

Over the years I have attended many meetings on this project and I continually question the previous outcomes. I have seen some of my neighbors continue to complain about the roads, the creeks, the noise, and various safety problems in referring to this project. I have seen no such problems as the applicant has been operating on a limited yardage permit for years. I can see no reason not to allow an increase in yardage considering the need of this product in our community.

Icurently reside on the busiest noiseist and heaviest traveled road in the Corbett area. (Corbett Hill Road). I knew this when I moved here and I also was aware it would not get better but only worse considering the greater uses of the Gorge.

I moved here to view the Gorge and I moved from one of the Most peaceful secluded spots in the Corbett area. This property was situated on 45 acres between Howard Canyon road and Louden Road. This property's east boundary was next to Mr. Smiths property on which the quarry is located. Howard Creek ran thru the north corner of the property.

For the 10 years I lived there this quarry was operating on a part time basis. During that time I did not notice any adverse conditions. The creek was clear and un-effected, noise and air quality was not an issue. Traffic was about the same since we either got rock from this pit or it was transported from the Gresham area. This residence was one of the homes closeist to the actual quarry site. It seems strange to me that people that live miles from this location continue to tell this board how this project will impose upon the air, the creek, roads and the safety of the area. I disagree, and feel we should allow this resource to be used in our community. What right do I, or my neighbors, to limit the tpye of uses or types of trucks that can use the roads. Its okay for log trucks cement trucks, tour buses, bikes, cars, lumber trucks, farm vehicles but not a dump truck?

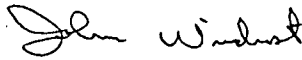
I Have continually heard that we don't need rock and that this site does not have a good enough supply. If that was the case why would Mr. Smith even apply for the application. The reverse is true, People are well aware that a great need is there and they are concered that this may turn into a large scale operation hauling rock out of the area. I am sure that some rock will be hauled out of the Corbett area, but logistes tell me that it would not a lot. I Have known Mr. Smith for a long time and he has always been a good neighbor. I trust him to operate this quarry in the best interests of the community.

What sense does it make to have to truck gravel for up to 50 miles on all of the roads to satisfy needs that can be served on a local basis. If people were really concerned for environmental reasons how can they justify the increased traffic from outside the area and greater use of fossil fuels.

We are going to build a new school next year and I hear that as much as 30000 yards of rock may be needed. Why would we send 3000 truck trips thru the community when we could source it locally and not have the outside traffic to contend with. I'm sure the cost savings would also be significant.

It is up to Corbett as a community to work together with Mr. Smith instead of against him to allow this use to be expanded at the least impact to the local area.

Thank you for your time.

A handwritten signature in cursive script that reads "John Windust".

John Windust
2207 N.E. Corbett Hill Road
Corbett, Oregon 97019

For Approval On The Rock Quarry ^{owned by} Raymond Smith

We, the Citizen Residents in the Community of East M.H. County, would like to bring to your attention not only the benefits but needed necessities in approving the Rock Quarry owned by Raymond Smith. We the citizen Residents feel it more a necessity to have the Rock Quarry in our Community, most drive ways are gravel. It would not only save us a lot of money on the traveling time & cost the labor involved, let alone the gravel itself.

Most importantly, by this Community approving this needed Rock Quarry, not only will it fulfill citizen Residents needs & necessities, it will help financial funds in our Community, & will benefit & complement Corbett's needs.

6/13/14 Hearing

Paul Hribecnick

Submitted

Support Letters

East Mult. County Community Residents To approve A Rock Quarry Owned By Raymond Smith

Signature	Phone Home or Miss #
1) J. Walker of Huxton	695-5201
2) Michelle W. Ben	695-5201 / wk 1207-9416
3) Jane Houch	695-2768
4) William Davis	695-5134
5) Leon Tark	695-5734
6) Karl M. Smith	695-5201
7) James H. Fulmer	695-5134
8) Ethel J. Rowley	695-2146
9) Mary B. B.	695-2146
10) J. B. B.	695-2146
11) Jerri Cartress	695-2525
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

East Mult. County Community Residents To Approve Rock Quarry owned by Raymond Smith.

Signatures	Phone # ^s or Message #
1	
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James P. Redden
37837 SE Rickett
Corbett Ore 97019

To the
Multnomah Board of Commissioners

Having a rock pit in Corbett is an excellent service to our community. You have less miles for trucks to haul the rock, as opposed to hauling it from Gresham or Portland.

The people who run the pit have a small business and are not trying fill their pockets with money, just make a living.

I live on the ridge just south of the operation, the noise does not bother me, in fact I rarely hear it. We need a pit in Corbett Thank you.

Sincerely
James P. Redden
James P. Redden

To Whom it May Concern:

13 June 1994

The rock quarry located in Howard Canyon is a needed source of rock for the Corbett community. This source of rock is used for the majority of the new construction and maintenance in the area. This rock quarry is also one of the last available sources of rock in Multnomah.

There have been concerns that the mining of rock will cause excessive noise in the community. The method of mining now used is excavation with a back hoe, which does not cause excessive noises that harm the neighbors.

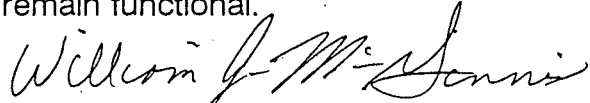
It has also been stated by an employee of Multnomah County that the roads are unsafe for rock hauling trucks. If this is indeed the case, then the roads are also not safe for the following:

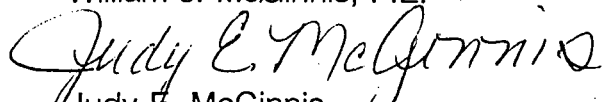
- 1) All rock hauling trucks regardless of the source of the rock
- 2) All concrete trucks
- 3) All trucks transporting mobile homes
- 4) All school buses
- 5) Most of District #14 emergency vehicles
- 6) All large moving vans
- 7) All log hauling trucks

As you can see, not permitting the trucks from the Howard Canyon rock quarry on the roads in the Corbett area would also stop the seven references above from using the same roads. Not allowing any of the above to use the roads would basically shut down the Corbett area.

It has also been stated that the rock from the Howard Canyon rock quarry can not be used for anything but road building. This false statement was made by an engineer hired by the local people against the quarry. The truth is the rock can be used for drain fields. In fact, I have installed two drain fields with drain rock from this quarry and both drain fields were inspected and approved by Multnomah. It was also stated the rock could not be used as concrete aggregate because crushed rock is not structurally sound. This statement is completely false. In fact, most of the concrete in the United States of America contains crushed rock as the structural aggregate. An example a little closer to home is the Corps of Engineers' dams on the Columbia River used crushed rock in their structural concrete.

We believe that the quarry in Howard Canyon is an asset to the Corbett area and is a much needed source of rock. We are confident that arrangements/compromises can be made so the Raymond Smith rock quarry can remain functional.


William J. McGinnis, P.E.


Judy E. McGinnis

39227 SE Gordon Creek Road
Corbett, Oregon 97019-9711

6-9-94

To Whom it may Concern-

As residents of Corbett Oregon
for several years, we feel
that the Howard Canyon Road
Rock Quarry is a asset to
the Corbett Community and
has been greatly appreciated
by many people. As property
owners we would like (and have)
to get our Rock from the
Howard quarry rather than
anywhere else -

Thank you
Paul and Connie Jenner

June 10, 1994

To Mult Co.

This is a Letter of Support,
to the Rock Pit on Howard Rd

I do Excavation & Driveways
in the Corbett Area.

The Areas Driveways are Long
and Steep.

The Rock, at Howard Rd Pit, is
Full Fractured, No Rounds, like Pits
West, of the Sandy River,

The closest Pit, with equal, Full
Fractured Rock is, Mt Hood Rock Pool in
Brightwood, 40 Tuff miles Round Trip.

Full Fractured Rock is a, Must, on
most of the Driveways in Corbett Area.

Daniel L. Roberts
106 N/E Littlepage
Corbett, Ore.



METRO

June 13, 1994

Multnomah County Board
of Commissioners
1120 SW Fifth Avenue
Portland, Oregon 97204

Multnomah County
Planning Commission

Re: "Howard Canyon Reconciliation Report", May 23, 1994.

Dear Commissioners,

We are writing on behalf of the Metro Regional Parks and Greenspaces Department. We appreciate this opportunity to share our thoughts and concerns regarding the "Howard Canyon Reconciliation Report".

Our comments are as follow:

1). We concur with the report's conclusion that Big Creek, Howard Canyon Creek and Knierem Creek are significant. However, we are concerned that the report understates, omits, or mis-states certain information which, if included, would strengthen the basis for the finding of significance.

We recommend the following changes and additions:

A). Chapter I, Part A, Section 3. "Quantity". pg II-4 is faulty because it compares the three streams in question to all streams in East Multnomah County. This is a meaningless comparison for two reasons. First, the Bull River and Sandy River are lumped into the total "length" and "drainage area". Although both are "class I", it is inappropriate to compare streams to rivers. Second, the

comparison apparently includes streams which are not tributary to Sandy River.

This applies to oranges comparison results in a skewed assessment which leads to an inaccurate conclusion of "insignificance" in terms of "quantity".
This comparison should include only streams of similar size which flow into the Sandy River.

2). Section 4, "Quality", pg II-5 indicates that criteria and measurements used to judge criteria are extensively discussed in the "Multnomah County Significant Streams Study - Howard Canyon Area" - Appendix A.

Review of this section reveals that important information has not been collected which, if included, would strengthen the basis of the significance findings.

For example, a stream survey for aquatic life has not been conducted, consequently the analysis lacks significant information on fish resources in the creeks. It is quite possible that trout populations may be genetically unique due to their isolation created by the waterfalls on Big Creek.

Additionally, the inventory does not address amphibians, neo-tropical birds, resident bird species or botanical resources. Despite these glaring omissions, the analysis concludes that the "study area" does not contain habitat for endangered or threatened species. This conclusion is unsupportable. A more appropriate conclusion would be that the "study area" may provide habitat for rare, threatened or endangered species.

Apparently, no data on water quality has been collected. The lack of basic water quality data prevents reasonable assessment of impacts related to adjacent land uses and associated enforcement of water quality laws and standards.

3). Chapter II, part B, Section 4, pg. II-10 states that "uses that represent potential conflicts with streams include any activity that results in the removal of vegetation along the riparian zone". While this statement is true, it ignores the impacts of various land uses throughout the watershed on the stream and the section completely overlooks the conflicts created by removal of water from the stream for consumption, irrigation, hydroelectric generation, etc.. Any and all of the primary or conditional/community service uses that would depend on surface water for "out-of-stream" purposes will conflict with the protection of the significant streams and existing state law. "Out of stream" water uses should be included as a "Conflicting Use Impact" on pages II-12 and II-13.

4). Chapter II, part B, Section 4,C.,I, pg 11-14 states: "The creek (Big) does not flow into a wildlife habitat area or any other sensitive area". This statement is false! Big Creek flows into the Sandy River adjacent to Oxbow Park. The Sandy has been included in the National Wild and Scenic Rivers System (1988) and the State Scenic Waterways Program (1973). In both cases, the river has been designated, in part, due to its outstanding wildlife habitat values. Pg. 18 of the BLM "Sandy Wild and Scenic River and State Scenic Waterway Management Plan", (September 1993) states: "The Sandy River Gorge offers one of the highest levels of diversity in both wildlife species and habitat of any river in the region" and "The habitats bordering the river and major tributaries provide critically important travel corridors for wildlife movement along the river and to and

from the Larch Mountain area to the east, especially for important big game species such as Roosevelt Elk".

Furthermore, BLM, USFS, BPA, US Fish and Wildlife, Oregon Department of Fish and Wildlife, Northwest Power Planning Council, Oregon State Parks, Oregon Water Resources Department and virtually every other natural resource agency recognize the importance and diversity of Sandy River fish resources - both resident and anadromous species.

Big Creek flows into the Sandy River approximately 100 yards upstream from a known spawning area for Fall chinook salmon and Winter steelhead. Impacts to tributaries result in diminished resource values downstream. We strongly recommend appropriate amendments to this section of the report.

5). ESEE analysis, pg. II-14 thru II-26 - this section concludes that the "consequences of not protecting significant streams are primarily environmental in nature, while the consequences of prohibiting or limiting conflicting uses in order to preserve significant streams are primarily economic, social and energy in nature".

We believe the conclusion is faulty because the analysis is focused too narrowly on impacts associated with limiting land uses adjacent to the stream.

For example, the section on "Economic Consequences of Allowing Conflicting Uses" fails to address the economic consequences of lowered water quality on anadromous fish resources; the economic impact of reduced wildlife population and diversity; the economic impact of reduced flows and lowered water quality on recreational use of the Sandy River; and the economic impact of flooding and flood control projects. Similar omissions are noted in sections on social and energy consequences.

Between 1980 and 1990, over one billion dollars were spent on efforts to restore the Columbia River salmon fishery. Habitat destruction and associated impacts on flows and water quality are important factors contributing to the salmon crisis which has only continued to escalate into the 90's without question, salmon are important both economically and socially. Although none of the three (3) creeks are utilized by anadromous fish, (due to a natural barrier) they are tributary to the Sandy River which is an important spawning and rearing area. The Sandy river is a reflection of the quality of its tributaries.

Oregon's diverse wildlife resources are important elements in the state's tourism industry. Wildlife attracts both hunters and viewers. The Oregon Department of Fish and Wildlife has made efforts to document the financial impact of hunting and wildlife observation, and scientific studies have documented the importance of riparian corridors to wildlife for forage, cover and migration purposes. This information should be included in analysis along with the cost of mitigation efforts caused by conflicting uses.

BLM and Oregon State Parks have estimated that up to one (1) million people annually utilize the Sandy River for a myriad of recreational activities. This intense use creates substantial economic activity for a variety of businesses throughout the region. This information should be considered in the analysis.

Finally, the report recognizes the contribution of riparian vegetation removal to increased flooding. However, a discussion of the economic, social, and energy consequences of flooding is omitted. The economic impacts of flooding and flood control should be included as an economic, social, and energy impact.

Each of these impacts of conflicting uses have economic, social, and energy consequences which have not

been addressed. We believe that they should be considered in the ESEE analysis and that the result will be a conclusion which supports stronger limitations on conflicting uses within the riparian corridors of significant streams and their tributaries.

6). ESEE Analysis - Howard Canyon Aggregate Resource, pgs III-25 thru III-43.

We are concerned that staff has assumed too much regarding the potential impacts of mining on the significant streams. For example, the report states: "Staff from DOGAMI has verified that they are confident that there is enough separation between the extraction area and these significant Goal 5 streams to accommodate holding ponds that would catch enough soil to ensure that the drainage that leaves the ponds would meet applicable water quality control standards".

Curiously, it appears that neither DEQ (agency responsible for water quality) or Oregon Department of Fish and Wildlife were consulted regarding their opinion of the impacts of the proposed mining on the significant streams. A "to scale" map depicting the mining site and streams is not a part of the report.

Additionally, without baseline information on the current status of fish, wildlife or water quality, we question how anyone will be able to judge the impact of the mining operation. Speculation seems unnecessarily risky.

It is recommended that both DEQ and the Oregon Department of Fish and Wildlife be consulted about fish, wildlife, and water quality issues and their response be included and considered in the ESEE analysis.

It is further recommended that credible baseline information be collected on fish, wildlife and water quality. This should be done at the expense of the mine operator.

7). Conflict Resolution, pgs IV-3 thru IV-22 -

Full protection (3-A) of significant streams in our view, would require prohibition of all conflicting uses throughout the entire watersheds of the streams in question. We concede that this course of action is unrealistic. However, we strongly believe that the proposed conclusions and protection strategies fall far short of what is required to achieve even limited protection of the stream resources.

Our specific recommendations include the following:

a). Forestry - Although the Forest Practices Act has been updated and improved, there is still considerable room for further improvement, particularly in the area of stream protection. Protection standards on federal lands have recently been amended and strengthened in response to considerable evidence regarding the negative impacts of timber harvest and road construction on Class I streams and their tributaries. By assuming that the FPA protects these significant streams, the County is shirking its responsibility to the Goal 5 resources and missing an opportunity to help shape timber harvest guidelines by participating in the process.

It is recommended that the County advise the State Forestry Department of its determinations relative to this and other "resource reconciliation" efforts and recommend the implementation of appropriate protection measures. Additionally, it would be advantageous to assign County Staff to monitor and participate in various issues and processes initiated by the Board of Forestry which impact

timber harvest activities adjacent to Class I streams and their tributaries.

b). Residential Uses - It is recommended that residential uses be prohibited within 100 feet of significant streams, 50 feet of their tributaries, and all riparian vegetation protected except for hazard trees. It is further recommended that access drives in the riparian zone be avoided whenever practical and in the event crossing a significant stream cannot be avoided, a bridge or arch culvert should be required and installed in a manner that is approved by the Oregon Department of Fish and Wildlife.

Soil disturbing activities should be restricted to typically dry months, erosion prevention measures should be required for all soil distributing activities and revegetation required prior to the rainy season.

c). Community Service and Conditional Uses - It is recommended that these uses be prohibited within 100 feet of significant streams and 50 feet of their tributaries. Access roads, riparian vegetation and soil disturbing should be restricted as noted above in 7b.

d). Agricultural Uses - We strongly disagree with the report's reasoning for concluding that the County should not regulate agricultural activities. It is widely accepted that agricultural activities have and continue to be a major factor in the degradation and destruction of riparian habitat, decline in wildlife diversity, degradation of water quality, destruction of fish resources and introduction and spread of exotic plant species and, in some cases, disease.

Information in the "stream profile" section clearly contradicts reasons "3" and "4" (pg IV-9) for not pursuing regulation of agricultural activities. You have the authority and ability to begin a process of restoration. We urge you to use it.

At a minimum, it is recommended that livestock and crop cultivation be prohibited within 100 feet of significant streams and 50 feet of their tributaries. Where streams have been degraded, landowners should be required to repair the damage they've done. Roads associated with agricultural activities should be treated per 7b above.

It is further recommended that the County limit its annual appropriation to the East County Soil and Water Conservation District to restoration activities on streams and wetlands which have been degraded by agricultural activities. These funds should be earmarked to assist landowners with restoration efforts.

e). Mining of Mapped Aggregate Resource -

It is recommended that mining activity be prohibited within 200 feet of a significant stream and that all riparian vegetation be protected except for hazard trees. It is further recommended that:

- No mining be permitted within 100 feet of any tributary to a significant stream and that all riparian vegetation be protected except for hazard trees.
- Roads associated with aggregate mining be treated per 7b above and strictly limited to one (1) crossing.
- That the mine operator be required to complete fish, wildlife and water quality inventories prior to an expansion of mining activity.
- That a mining and reclamation plan require specific approval of the Oregon Department of Fish and Wildlife and DEQ in addition to DOGAMI.

- That the mine operator be required to test water quality downstream of the mine at a frequency which is adequate to capture the full range flows expected in the significant streams
- That exposed earth never exceed two (2) acres at any time.

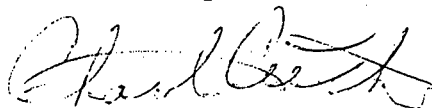
In closing, the "Multnomah County Natural Areas Protection and Management Plan" adopted by the Board in June 1992 states:

"Although the Board of County Commissioners is mindful of concerns regarding the rights of property owners, it also recognizes the responsibility of all land owners to develop and manage property in a manner which is consistent with the conservation of 'publicly-owned' resources such as fish, wildlife, scenery, air and water".

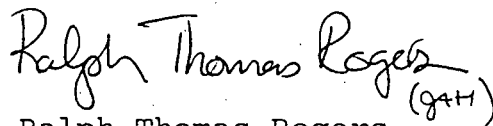
We believe our recommendations represent the minimum actions required to protect the streams that have been found to be significant. We appreciate your consideration of our comments and recommendations.

Again, thank you for the opportunity to share our views.

Sincerely,



Charles Ciecko
Director



Ralph Thomas Rogers
EPA Biologist

cc: Multnomah County Board of Commissioners:

Beverly Stein, Chair of the Board

Dan Saltzman, District 1

Gary Hansen, District 2

Tanya Collier, District 3

Sharron Kelley, District 4

Multnomah County Planning Commission:

Leonard Yoon, Chair

Karin Hunt, Vice Chair

Laurie Craghead

Samuel L. Diack

Chris Foster

William Fritz

Peter Finely Fry

John Ingle

Dave Kunkel

Steve Oulman, Dept. of Land Conservation and Development

Robert Walker, Bonneville Power Administration

Jill Zarnowitz, Oregon Department of Fish And Wildlife

Neil Mullane, Oregon Dept. of Environmental Quality

Rena Cusma, Metro

Judy Wyers, Metro

Merrie Waylett, Metro

CC/mb

hcrr.let

NEIL S. KAGAN
ATTORNEY AT LAW

1050 Yeon Building
522 S.W. Fifth Avenue
Portland, Oregon 97204

Telephone
(503) 223-4272
Fax
(503) 225-0811

June 13, 1994

MEMORANDUM

TO: Multnomah County Board of Commissioners
Multnomah County Planning Commission

RE: Howard Canyon

The Friends of Howard Canyon ask the Board and the Commission:

- to defer action on the recommendations made in the Howard Canyon Reconciliation Report until the planning department revises the report and re-submits it to the Board, the Commission, and the public for comment; and

- to direct the planning department to revise the Howard Canyon Reconciliation Report as follows, consistent with the letter submitted to the planning department by the Howard Canyon Committee of the Friends of Forest Park on June 10, 1994:

1. Howard Canyon Stream Resources

- a. Re-describe the impact area of each stream to include the watershed it drains
- b. Re-describe the impact area of the streams to include the federally and state-protected Sandy River
- c. Re-do the analysis of the economic, social, environmental, and energy consequences of conflicting uses, and particularly mining, on the streams and their impact areas
- d. Make the discussion of the economic consequences of restricting the use of the Howard Canyon aggregate resource reflect the absolute and relative size of the resource
- e. Restrict the ESEE analysis of the environmental consequences of restricting the use of the Howard Canyon aggregate resource to the streams and their impact areas

- f. Make the discussion of the energy consequences of restricting the use of the Howard Canyon aggregate resource reflect the presence of other sources of aggregate closer to Portland

2. **Howard Canyon Aggregate Resource**

- a. Re-calculate the impact area of the aggregate resource using mining equipment with stated specifications
- b. Re-calculate the impact area of the aggregate resource considering the cumulative noise levels of mining equipment operating simultaneously
- c. Re-describe the impact area of the aggregate resource to include the area in which quarry operations produce or might produce conflicts
- d. Re-describe the impact area of the aggregate resource to include the rural roads leading from the site, and the land bordering those roads
- e. Re-do the analysis of the economic, social, environmental, and energy consequences of mining on the conflicting uses within the impact area, especially residential uses and streams
- f. Consider conflicting uses such as timber production, agricultural production, and conservation in analyzing the economic, social, environmental, and energy consequences of mining on the conflicting uses within the impact area
- g. Delete the conclusion that allowing conflicting residential uses would increase the cost of county roads, unless further evidence supporting such a conclusion is adduced

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June 10, 1994

R. Scott Pemble
Planning Director
Department of Environmental Services
Division of Planning and Development
2115 S. E. Morrison Street
Portland, Oregon 97214

Re: Howard Canyon Reconciliation Report

Dear Mr. Pemble:

On behalf of the Howard Canyon Committee of Friends of Forest Park, I am writing to comment on your staff's Howard Canyon Reconciliation Report of May 23, 1994 ("the report"). I will begin with general comments on the misinterpretations of LCDC's remand order which pervade and undermine the report. I will continue with specific comments on the report's defects, noting the measures that must be taken to correct the report and ensure the county's compliance with Goal 5.

GENERAL COMMENTS

With respect to the Howard Canyon mineral and aggregate resource site, LCDC identified four issues in finding the county's compliance with Goal 5 inadequate. The staff has misinterpreted two of these issues. For this reason, and the reasons mentioned under my specific comments, the staff has produced a report that does not comply with Goal 5.

I will discuss both of the issues identified by LCDC that were misinterpreted by the staff. First, I will identify the issue. Next, I will show how the staff misinterpreted it. Last, I will explain how the staff's misinterpretation has rendered the report invalid.

"No Impact Test"

LCDC invalidated the previous Goal 5 decision, in part, because the county explained and expressed its preference for protecting conflicting uses in the ESEE analysis, instead of keeping the ESEE analysis neutral. LCDC said the county must make its decision after completing the ESEE analysis, rather than construct the ESEE analysis to justify a decision the county has

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already made. This was LCDC's third issue.

Specifically, LCDC said:

"Throughout the ESEE analysis, the county maintained that the ultimate decision to allow conflicting uses fully was preferable because operation of the quarry could not demonstrate 'no impact' on surrounding land uses or natural resources. This approach violates Goal 5. OAR 660-16-010 requires that decisions be based on the ESEE analysis, not that the ESEE analysis be used to justify a predetermined outcome."

LCDC's explanation does not prevent the county from choosing to protect other uses on the ground that quarry operations do not have a zero impact on those uses. Any contrary view would violate Goal 5, as interpreted by LCDC in the Goal 5 rule.

Under the Goal 5 rule, the county is only obligated to protect the aggregate resource if using it has no impact on other uses. If quarry operations have any negative impact on other uses, the Goal 5 rule authorizes the county to withhold protection of the aggregate resource. All the Goal 5 rule requires of the county is an explanation of the reasons for its decision. Were the county to explain, for instance, that it found existing rural residential uses especially sensitive to the noise quarry operations would produce, it could protect those uses -- even were the loss in property values produced by quarry noise small in relation to the loss that might be produced by not protecting the aggregate resource.

The staff misinterpreted LCDC's "no impact" issue, however, to mean that the county can not deny protection to the aggregate resource on the ground the impact of quarry operations on other uses will not be zero. As a result, the report mistakenly observed that decreased wildlife habitat and property values could not be grounds for denying protection to the aggregate resource unless the decrease were significant. Report at III-28, III-52, and III-53. Since the staff's mistaken belief led to the recommendation that the site be classed "3C", the report must be revised, and the recommendation reconsidered.

Potential Transportation Effects

LCDC invalidated the previous Goal 5 decision, in part, because the county used the Transportation Goal, Goal 12, as an approval standard in making its decision. LCDC deemed Goal 12 not to be an approval standard, but a directive "to provide and encourage a safe, convenient and economic transportation system" through the development of transportation plans.

Specifically, LCDC said:

"In its analysis, the county used the language of Goal 12 ('To provide and encourage a safe, convenient and economic transportation system') to conclude that protection of the aggregate resource was not warranted. Goal 12 requires development of transportation plans to serve land uses. The [sic] Goal 12 is not an independent standard used to deny protection of a significant aggregate resource. The county has not shown how the use of area roads is a conflict to protecting the aggregate resource. If a conflict does exist, Goal 5 requires resolution of the conflict.

"Because the county failed to define the impact area surrounding the aggregate resource site, it has no basis to analyze traffic conflicts resulting from the resource's use."

LCDC did not say the existence of conflicts between protection of the aggregate resource and transportation can not be a reason for choosing to protect uses other than aggregate extraction. Nor did LCDC say no conflicts exist between protection of the aggregate resource and transportation. LCDC faulted the county only because it had not defined the impact area in such a way as to justify the identification and discussion of transportation as a conflicting use.

The staff misinterpreted LCDC's order to mean that the county can not deny protection to the aggregate resource on the ground it will conflict with transportation. As a result, the report does not include the rural roads leading from the site, or the land bordering those roads, in the impact area. Report at III-14 through III-16, III-49 ("Extending the 1,200 foot impact area to include all road concerns would serve no purpose in the ESEE analysis because such concerns cannot be used as a basis for determining if the site should be protected"). The staff's mistaken position led to the report's failure to identify as conflicting uses the impacts of truck traffic on the uses of the land bordering those roads, and on the use of the roads themselves. Report at III-49 ("The road impact issues are in the Resource Analysis only to be on record for post-Goal 5 analysis use in reviewing any specific operating permit application.")

Consequently, the ESEE analysis is fatally flawed, as is the recommendation that the site be classed "3C". The report therefore must be revised, and the recommendation reconsidered.

SPECIFIC COMMENTS

Howard Canyon Stream Resources

1. Impact Areas

The report's analysis of the stream resources associated with the Howard Canyon mineral and aggregate resource site is defective because it establishes incorrect impact areas. The impact area of each stream should include the watershed it drains. As the report itself acknowledged, forestry, agricultural, and other uses occur within each stream's watershed, and cause or can cause increased turbidity, chemical pollution, erosion, and siltation. Report at II-12 through II-13.

Although the use of any single piece of property outside the riparian zone may not have an immediate or significant impact on stream quality, the existing and allowed land uses within the watershed together may have a cumulatively significant adverse effect. Such an effect can not be ignored because it occurs over the long term, in view of Goal 5's purpose of protecting the streams for future generations.

The riparian zone is also too small an impact area because it does not include the Sandy River. The Sandy is both a federal Wild and Scenic River and a state Scenic Waterway, and is used by the public for recreation. Howard Canyon Creek, Knierem Creek, and Big Creek all contribute water to the Sandy River. Report at II-9 through II-10. Big Creek contributes water directly to the Sandy, while Howard Canyon Creek and Knierem Creek contribute water indirectly as tributaries of Big Creek.

According to the report itself, the impact area of streams that contribute water to public parks, or to recreation areas used by the public, should include the downstream park or recreational area. Report at II-9. As both a Wild and Scenic River and a Scenic Waterway, the Sandy qualifies as a public park or a recreation area used by the public. Therefore, the Sandy River should have been included in the impact area.

The failure to describe proper impact areas renders the entire report insufficient under Goal 5, because a valid ESEE analysis and program to achieve the goal depend on an accurate impact area. Consequently, the staff must revise the report.

2. ESEE Analysis

The ESEE analysis is defective for other reasons, as well. First, in the discussion of the consequences of not protecting the streams, the ESEE analysis fails to analyze the economic

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consequences of mining on the streams. See Report at II-14 through II-15. The analysis also fails to analyze the social consequences of conflicting uses on the recreational use of the federally and state-protected Sandy River. See Report at II-15. The analysis also fails to analyze the environmental consequences of conflicting uses on the Sandy River. See Report at II-16. The analysis also fails to analyze the water quality impacts of mining in discussing environmental consequences. See Report at II-16.

In the discussion of the consequences of protecting the streams, the ESEE analysis fails to consider any of the beneficial economic, social, environmental, and energy consequences of protection. See Report at II-17 through II-21. For example, protecting the streams would mean the Sandy River would continue to attract recreational users, including tourists, which would have beneficial economic and social impacts. Protecting the streams would also mean the expenditure of less money and energy to prevent or clean up pollution, and the continued aesthetic appreciation residents of the area experience.

The ESEE analysis also fails to put the effects of restricting development of the Howard Canyon mineral and aggregate resource site in perspective. See Report at II-19. The site has just 1% of the aggregate found at the Angell Bros. site, the other site under Multnomah County's jurisdiction. Report at III-6. As a result, the economic consequences of restricting the site's development will be relatively minor.

The ESEE analysis also improperly speculates that protecting the streams may create adverse environmental consequences on other, unspecified sites. Report at II-20. The analysis must be tied to the impact area.

The ESEE analysis also assumes incorrectly that restrictions on the Howard Canyon mineral and aggregate resource site will require the expenditure of more energy to transport such resources to Portland from sources outside the county. Report at II-20. Yet, the existing, protected Angell Bros. operation is not only within the county, it is right outside Portland's city limits. Similarly, other sites within the county, but under Gresham's jurisdiction, are closer to Portland than the Howard Canyon site. Further, other sites outside the county, in Clackamas County, Washington County, and Columbia County, may be closer to Portland.

Again, since the development of a program to achieve Goal 5 depends on an adequate ESEE analysis, the foregoing defects in the ESEE analysis of the streams and their conflicting uses necessitate a revision of the report.

Howard Canyon Aggregate Resource

1. Impact Area

a. The immediate impact area

The description of the immediate impact area is deficient for a number of reasons. First, the report justifies a 1200-foot impact area on the ground that the sound produced by "typical" mining equipment beyond that distance will meet DEQ noise standards. Report at III-12. Yet the noise assessment study cited in the report never specifies what it means by typical mining equipment. What exactly are the specifications of a "typical" dozer, front end loader, jaw crusher, etc.? For example, how large is the dozer overall? How large is its engine? Such specifications are essential if the county is going to draw the boundaries of the impact area on the basis of the equipment that might be used to extract and process the aggregate resource.

The noise assessment study also never indicates whether it considered the cumulative noise levels produced by the individual pieces of equipment when they are operating at the same time. The study only seems to predict compliance with DEQ standards for each piece of equipment operated individually. The 1200-foot boundary may describe an insufficient impact area when more than one piece of equipment is operating simultaneously.

The report also determines that the DEQ noise standards are the appropriate standards to use in defining the extent of the impact area. That determination is justified on the ground that other jurisdictions have adopted the DEQ noise standards, and that the standards were purportedly designed to protect the health, safety, and welfare of Oregon citizens. Report at III-30, III-48. Under the Goal 5 rule, however, the only acceptable ground for using DEQ noise standards is that they accurately describe the area in which quarry operations produce or might produce conflicts. The report cites no evidence to that effect.

b. The extended impact area

As discussed in my general comments, the report unjustifiably excludes rural roads leading from the site, and the land bordering those roads, from the impact area. In fact, allowing the site to be used for the extraction of aggregate will create conflicts with use of the roads beyond those caused by existing traffic. It may also produce noise and dust conflicting with the use of the land bordering the roads. Report at III-31. Therefore, the roads and the land adjoining them should have been included within the impact area.

The proof that use of the site will adversely affect traffic on the roads may be found in a traffic study prepared by Robert Bernstein, a transportation expert. To summarize, the study established that slow-moving trucks traveling to and from the quarry will cause localized congestion; that roadway and shoulder widths, roadway structural characteristics, and sight distances are inadequate to accommodate trucks safely; that truck traffic in the rural area will create unsafe conditions for motorists, school buses, and pedestrians. (The study is attached and incorporated in these comments by this reference.) The report reinforces Bernstein's evidence about inadequate roadway structural characteristics. Report at III-15 through III-17.

Since an accurate description of the impact area is vital to the subsequent steps in the Goal 5 process -- the identification of conflicting uses, the ESEE analysis, and the development of a program to achieve Goal 5, the foregoing deficiencies in the report's description of the immediate and extended impact area must be revised.

2. Conflicting Uses

As just indicated, the report's identification of conflicting uses is insufficient, because it does not include the demonstrated conflicts with transportation, or the potential conflicts of truck traffic on the land bordering rural roads. In addition, the report provides no explanation why certain uses allowed in the forest and agriculture zoning districts will not conflict with the aggregate resource. See Report at III-19 through III-22. For instance, were the site managed to produce timber or crops, or devoted to uses to conserve soil, air, and water quality for wildlife and fisheries resources, it could not be used as a source of aggregate.

The absence of the above-mentioned conflicting uses from the report makes both the ESEE analysis and the program proposed to achieve Goal 5 inadequate. The report therefore must be revised.

3. ESEE Analysis

The report concluded that allowing conflicting residential uses would increase the cost of county roads, because it would take more time to acquire high quality aggregate. The evidence does not support the conclusion, however. The evidence was that the State Highway Department considers "high quality" rock to be scarce in Multnomah County. Report at III-26. Although the report deemed the quality of the aggregate found at the Howard Canyon site significant enough to include the site on the inventory, no evidence established it to be "high quality." In fact, the Howard Canyon aggregate barely meets state wear requirements for base aggregate. Report at III-8. Moreover, no evidence established

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whether it would take more or less time to transport aggregate from the Howard Canyon site over narrow, steep, winding rural roads to sites within the county.

For the reasons given in my general comments, and in my specific comments on the impact area and conflicting uses, the analysis of the economic, social, and environmental effects of quarry operations on existing residential uses is inaccurate and incomplete. It must be revised.

Also in need of revision is the analysis of the economic, social, environmental, and energy consequences of protecting the aggregate resource on the significant streams and their impact areas. See my specific comments on the Howard Canyon Stream Resources section of the report.

The report dismisses the environmental consequences on the significant streams by assuming mitigation measures can be implemented to protect fish habitat, and that quarry operations can meet current environmental standards. The county must reconsider this tack, because no evidence justifies it. The report does cite the expert testimony of Robert Ellis, but Ellis based his testimony on the assumption that only one or two acres would be mined at any one time. Once the site's aggregate resource is protected, however, nothing would prevent the owner of the site from seeking to mine a substantially larger area.

The report also dismissed the environmental consequences on big game habitat on the ground that the habitat is not a Goal 5 resource. The county must reconsider this tack, too, because big game habitat does not have to be a Goal 5 resource to constitute a conflicting use.

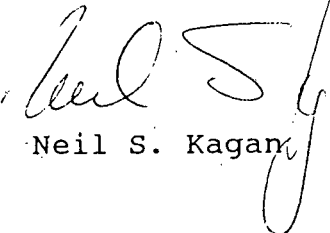
Finally, in discussing the energy consequences of protecting the aggregate resource on the significant streams, the report failed to consider the energy effects of cleaning up pollution caused by quarry operations. It must therefore be revised.

Conflict Resolution and Protection Program

As I have demonstrated in my comments, the report has seriously erred in describing impact areas, identifying conflicting uses, and analyzing ESEE consequences. As a result, the underpinnings of the conflict resolution and protection program are grossly insufficient. Therefore, it would be premature for the county to make a decision on the protection of the competing uses at this point. Once the staff has revised the report as I have indicated, it should be re-submitted to the Board of Commissioners, the Planning Commission, and the public for comment and final action.

Mr. Pemble
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Yours truly,


Neil S. Kagan

NSK/gmm
Enc.

cc: Steve Oulman, DLCD

Traffic/Transportation Planning & Engineering

Robert Bernstein, Inc. P.S.

507 - 18th Ave. E.
Seattle, WA 98112

Mr. Edward J. Sullivan
Mitchell, Lang & Smith
2000 One Main Place
101 SW Main St.
Portland, OR 97204

April 2, 1987

SUBJECT: Report on traffic and transportation issues related to the proposed quarry operation on Howard Road in the Corbett, Oregon, area

Dear Mr. Sullivan,

The report attached to this letter has been prepared at the request of Mr. Gary Thomas and some of his neighbors. The report

- 1) summarizes my review of available materials related to the proposed quarry and its Multnomah County permit application,
- 2) evaluates traffic and transportation issues not adequately addressed in the available material, and
- 3) draws general conclusions about road system adequacy and traffic safety impacts of the proposed quarry.

The following documents were reviewed:

- o Multnomah County Conditional Use Permit Application CU 7-87, dated October 23, 1986
- o Multnomah County Staff Report and Recommendation, CU 13-80, dated August 18, 1980
- o various environmental and geological permit applications and reports

In addition, I visited the site and the surrounding area on March 29, 1987.

My qualifications, in the form of my resume, are attached for your information. If I can be of any further assistance, please do not hesitate to call on me.

Sincerely,



Robert Bernstein, P.E.

REVIEW OF MULTNOMAH CO. CONDITIONAL USE PERMIT APPLICATION (CU 7-87)

CONCLUSIONS

A conditional use permit application for a quarry operation at the site of the subject quarry proposal was filed nearly seven years ago. As recorded in the Decision of the Hearings Officer (Multnomah County File No. CU 13-80, #666-681, 8/18/80), the Hearings Officer concluded that 1) the proposal was "not consistent with the rural character of the area, because its location would force large numbers of heavily-loaded trucks to traverse many miles of rural roads not intended to serve that type of use," 2) the proposal "will have an impact on services, because the level of truck traffic indicated by the applicant will affect the rural road system beyond Howard Road," and 3) the proposal "will generate hazardous conditions because of the level of truck traffic on roads designed to handle normal rural uses, this being particularly true at intersections." Based on these conclusions, the Hearings Officer denied the proposed conditional use.

The 1980 findings of the Hearings Officer are applicable to the current quarry proposal: nothing has happened in the past seven years to alleviate the problems identified. Furthermore, continuing rural residential development-- with its increased traffic-- makes the traffic impacts of the proposed quarry operation more severe every year, because the truck traffic has to interact with more auto traffic.

It should be noted that the traffic problems associated with quarry truck traffic as described later in this report (i.e., localized traffic congestion, hazardous operations at intersections, and hazardous operations on the roadways) are caused by each individual truck. These problems do not disappear with lower truck volumes: the Hearings Officer's conclusions are applicable to the current quarry proposal, despite its lower estimated truck volume. (The applicant's estimate of an average of 10 truck trips per day seems to be unrealistically low, and is certainly not indicative of a "worst case.")

It is also important to keep in mind that any promises made by the applicant or conditions of approval imposed by the County Commission regarding operation of the proposed quarry-- and the truck traffic it would generate-- may be difficult or impossible to enforce. If the applicant or the County are unwilling or unable to make good on operational conditions regarding truck operations or their enforcement, the surrounding rural neighborhood will be left with the safety and congestion problems that such conditions were intended to address. Since the County, in reality, has little ability to enforce conditions on operations, the neighborhood should

not have to rely on conditions of approval to avoid and/or mitigate serious safety and congestion problems.

The basic conclusions stated above lead to the final conclusion that the application should be denied for traffic safety reasons. The following discussion focuses on the main traffic impacts of the proposed quarry.

TRAFFIC CONGESTION

Traffic congestion, such as that experienced in urbanized areas, is not a problem in the vicinity of the proposed quarry. However, localized congestion can occur when cars "stack up" behind a slow-moving loaded gravel truck. Due to the topography in the area, steep grades and sharp curves abound on the road system that would be used by quarry truck traffic, regardless of the trucks' origins or destinations. These grades and curves will force trucks to move very slowly in numerous locations. Impatience and frustration may lead motorists to make ill-advised or downright hazardous maneuvers.

TRAFFIC SAFETY

In addition to its congestion impacts, truck traffic generated by the proposed quarry would significantly increase traffic safety problems along any of the roads the trucks might conceivably use in travelling to/from the quarry: Howard, Little Page, Loudon, Hurlburt, Pounder, Knieriem, Salzman, and Evans, as well as the Columbia River Scenic Highway and Corbett Hill Road. These problems are related to roadway design, the physical characteristics of trucks and their operation, and the behavior of individual motorists. The importance of recognizing these truck-related safety problems is magnified by the fact that accidents involving cars and large trucks tend to be more severe than accidents involving cars only.

In the following discussion, it should be kept in mind that inclement weather and darkness would aggravate each of the safety problems described. The icy conditions often found in this part of eastern Multnomah County during the winter pose an extreme hazard for all traffic operations. Impaired visibility due to darkness, precipitation or truck wheel spray, as well as wet or slippery pavement all contribute to increased accident potential.

Roadway Characteristics

The design of any roadway should facilitate safe traffic operations by providing adequate roadway width, sight distance and riding surface. The design should be as "forgiving" as possible; i.e., the design should forgive motorists' errors by minimizing the

potential for or severity of accidents resulting from such errors. For example, flatter roadway sideslopes and wider shoulders reduce the potential for rollovers in run-off-the-road accidents. In such cases, the motorist is "forgiven" for leaving the travel lanes.

One geometric design element of all the roads in the vicinity of the proposed quarry that is substandard-- and unforgiving in the accommodation of existing traffic-- is the roadway and shoulder widths. At 12-20 feet in width, the roadways are narrow. The narrow lanes, combined with the narrow unpaved or non-existent shoulders leave little room for motorists to maneuver, and provide little leeway for even temporary or minor loss of control on the part of a driver.

Large trucks in these narrow lanes have little lateral space within which to maneuver without either running off the road themselves or causing on-coming traffic to take evasive action. The narrow lanes and poor shoulders strictly limit the ability of vehicles to maneuver safely, whether these maneuvers be emergency or preventative in nature. There is no room for an auto to swerve to avoid a real or perceived encroachment by an on-coming truck, nor is there room to give an on-coming truck a "wide berth." In such situations, even minor incidents have the potential for serious consequences.

Safety problems associated with the steep, narrow, winding roadways in the vicinity of the proposed quarry will be aggravated by the degradation of roadway riding surface caused by heavy truck traffic. Many of the roads in the quarry vicinity simply are not structurally designed to carry heavy trucks; such roads will begin to break up fairly quickly under repeated truck usage. The other roads that are structurally capable of carrying heavy truck traffic will also deteriorate much more quickly than they would otherwise. As the Hearings Officer found in 1980, it would be financially infeasible to reconstruct all of the roadways that quarry truck traffic would use. Furthermore, the repair of deteriorating road surfaces-- aside from being expensive-- is rarely immediate, forcing local traffic to use a deteriorated roadway until such time as repairs can be made.

Sight Distance

With the exception of a number of blind driveways, available sight distance along the rural arterials in the area meet American Association of State Highway & Transportation Officials (AASHTO) sight distance standards, which are based on the ability of a motorist to bring an automobile to a safe stop. To stop a loaded gravel truck safely, however, requires a distance at least 40% in excess of the distance needed by cars to stop safely. (The sight distance requirements stated above are not purely arbitrary or empirical, but are in fact based on the laws of physics, the

reactive ability of drivers, and the deceleration capabilities of cars and heavy trucks.). As a result, the available stopping sight distance throughout the area leaves trucks with little or no margin for error in reacting to roadway obstructions and traffic.

It is generally assumed that the AASHTO sight distance standards are adequate in the case of heavy trucks, because the higher eye height of the drivers of the trucks compensates for the longer distance required to stop the trucks. However, it has been found that this assumption does not hold on crest vertical curves for the larger and heavier trucks with their longer braking distances. And of course eye height makes little difference on horizontal curves and sag vertical curves. Therefore, the fact that the roads in the area have sight distances that meet AASHTO standards does not ensure that adequate safe stopping sight distance exists for site-generated trucks.

Traffic Conflicts

All the sight distance in the world won't compensate for the motorist who misjudges a truck's speed and pulls out of a side street or driveway into a truck's path. Heavy trucks are unable to react to such roadway and traffic conflicts as quickly as the autos and small trucks that comprise most of the area traffic. This disparity of control capabilities between trucks and local traffic increases accident potential. Likewise, trucks take longer to accelerate when entering a road, and drivers often misjudge the rate at which they are overtaking a truck. This problem is exacerbated by trucks' need to make relatively wide turns, which, on the narrow roads in the area, results in the truck occupying the entire intersection as it makes its turn. This is a problem throughout the area, and it is a particular problem at the intersections along the Columbia River Scenic Highway. At the oblique Little Page Road and Larch Mountain Road intersections, it is very difficult for truck drivers to see traffic approaching from the east. At any of the Scenic Highway intersections, trucks will be turning left onto a highway that is heavily used by tourist automobile traffic, which often is not expecting heavy truck traffic entering the highway from the side roads. The Howard/Little Page/Pounder intersection is also particularly bad for trucks, due to limited sight distance and insufficient turning radii for trucks.

Driver Behavior

Safety problems also result from the incompatibility of regular heavy truck operations and the expectations of motorists on the rural arterials, rural collectors, and the Scenic Highway. The potential for accidents increases when motorists encounter unexpected or confusing traffic flow conditions, traffic controls or roadway conditions. Most of the traffic in the area is recreational or is generated by rural residential land uses, and motorists may

not expect to encounter heavy trucks on a regular basis. Traffic slowdowns and restricted visibility caused by the trucks have the potential to induce motorists to make a variety of ill-advised or unsafe maneuvers, such as tail-gating or passing where it is unsafe to do so. The braking and evasive capabilities of heavy trucks can be easily overestimated, and as stated previously, the roadway design does not compensate for errors in judgment or reaction.

Pedestrians, School Buses, and Mail Delivery

Heavy truck traffic generated by the proposed quarry would be totally incompatible with the school bus operations and access on most of the area's roads, including Knieriem, Little Page, Salzman, and Howard. Even if school children need not actually cross these roads enroute to or from school bus, truck traffic creates serious hazards for children waiting for the bus in the morning or walking along the road to or from the bus stop. Such hazards are significantly magnified in poor weather and during early morning darkness.

In addition, the risk of a truck rear-ending a stopped school bus would be significantly increased by the increased truck traffic generated by the proposed quarry. Postal carriers face similar risks.

ROBERT D. BERNSTEIN, P.E.

SERVICES

- o Traffic and transportation planning for state and local agencies
- o Neighborhood traffic management
- o Traffic impact analysis for environmental studies
- o Traffic analysis and design for site development
- o Expert review of environmental studies and land use proposals
- o Transportation demand management programs
- o Public involvement/participation for transportation projects
- o Origin-destination surveys and other surveys
- o Transit planning

QUALIFICATIONS

- o 10 years experience in city and regional transportation planning agencies and consulting firms
- o strong educational background:
MSCE-Transportation (Northwestern U.), BCE (Georgia Tech)
- o skilled in computer applications for transportation planning and traffic engineering
- o innovative and skilled at problem-solving and consensus-building
- o extensively experienced in the public involvement and citizen participation aspects of all types of transportation projects
- o registered professional engineer (civil) in Oregon and Washington

SELECTED PROJECT EXPERIENCE

Transit Projects and Studies

Multi-Corridor Project (PSCOG, 1985-86)
North Corridor Extension Project (Sno-Tran, PSCOG, 1985)
North Corridor Alternatives Analysis (PSCOG, 1983-84)
Banfield Transitway Project (ODOT, City of Portland, 1978-82)
Westside Transitway Project (Metro, City of Portland, 1978-80)
Tacoma-Seattle Transit Connections Study (PSCOG, 1986)

Transportation Plans

Arterial Streets Classification Policy Update (City of Portland, 1982-83)
Eastside Transportation Plan (PSCOG, King and Snohomish Counties,
Cities of Bellevue, Redmond, Kirkland, Bothell, and Issaquah, 1985-)
Green River Valley Transportation Action Plan (PSCOG, WSDOT, King County,
Cities of Renton, Kent, Auburn, and Tukwila, 1986)

Corridor/Sub-area Transportation Studies

Alderwood/North Creek Transportation Study (PSCOG, Snohomish County, 1985)
Northwest Portland Transportation Study (City of Portland, 1980-82)
Bellevue CBD Transportation Study (PSCOG, City of Bellevue, 1985-86)
Greater Lynnwood/I-5 Transportation Study
(PSCOG, City of Lynnwood, Snohomish County, WSDOT, Community Transit, 1987)
South Snohomish SR-99 Corridor Study
(PSCOG, WSDOT, Community Transit, City of Edmonds, 1987)
SR-9 (Snohomish - SR-522) Corridor Study
(PSCOG, Snohomish County, WSDOT, City of Snohomish, 1987)

Neighborhood Traffic Management Plans

McLoughlin Neighborhoods Project (City of Portland, 1979-83)
Division Corridor Neighborhood Traffic Management Plan (City of Portland, 1985)
South Burlingame Neighborhood Traffic Management Plan (City of Portland, 1984)
King County Neighborhood Traffic Control Demonstration Project (King County, 1987)

Freeway Corridor/Interchange Planning and Design

Alternative to I-505 Project (City of Portland, 1978-82)
East Marquam Interchange (I-5) Project (ODOT, City of Portland, 1979-80)
McLoughlin Boulevard Project (ODOT, City of Portland, 1979-83)
Terwilliger/I-5 Project (ODOT, City of Portland, 1982-83)
Frontier Village SR-9/SR-204 Project (WSDOT, Snohomish County, 1985)
I-84 (181st - Troutdale) Project (ODOT, 1986-87)
Seattle SR-99 Connections Study (WSDOT, City of Seattle, PSCOG, 1987)

Special Studies

Tacoma Dome Access and Parking Study (PSCOG, City of Tacoma, 1985-86)
Industrial Access Study (City of Portland, 1979-81)
Alternative Access Modes Database Project (PSCOG, 1985)
Everett Navy Base Traffic Impact Study (PSCOG, WSDOT, FHWA, 1986)

EXPERIENCE

1983 - Present: Consulting Transportation Planner/Engineer

Mr. Bernstein has completed numerous traffic impact analyses and neighborhood traffic management studies for clients that include the Portland (OR) Bureau of Transportation Planning & Finance, Washington State Department of Transportation, Oregon Department of Transportation, Snohomish County (WA) Public Works Department, Southland Corporation and several neighborhood groups in Portland, Hillsboro, Washington County and Clackamas County, Oregon.

1983 - Present: Puget Sound Council of Governments

As Senior Transportation Engineer, Mr. Bernstein develops, manages and supports a wide variety of multi-jurisdictional sub-area and corridor transportation studies, short- and long-range planning efforts, and various traffic operations and impact analyses. Mr. Bernstein also serves as Coordinator for the Snohomish Subregional Council.

1978 - 1983: City of Portland, Oregon, Bureau of Planning

As City Planner-Transportation, Mr. Bernstein was responsible for the Projects and Area Studies program area of the Transportation Planning Section. General responsibilities included development of work programs, direction of other staff and consultants, technical and policy-related research, preparation of reports, and presentations and testimony at public meetings and meetings of the Planning Commission and City Council. Specific responsibilities included project management, the evaluation of and provision of city input for highway and transit projects being developed by other agencies, and the evaluation of transportation impacts of proposed land use changes and developments for the Land Use Hearings Officer, Planning Commission and City Council.

1976 - 1978: John Hamburg & Associates, Chicago, Illinois

As Transportation Engineer, Mr. Bernstein designed, programmed and tested computer models used for analysis of trip generation, regional VMT/VHT, and intersection capacity and delay. Clients included UMTA, FHWA, North Central Texas COG (Dallas), NE Ohio Areawide Coordinating Agency (Cleveland) and Tri-State RPC (New York).

ROBERT D. BERNSTEIN, P.E.

EDUCATION

MSCE, 1978, Northwestern University, Evanston, IL
(Urban Transportation Planning program)

BCE, 1976, Georgia Institute of Technology, Atlanta, GA,
with Highest Honors

Elementary and Secondary Schooling:
David Douglas School District, Portland, Oregon

PROFESSIONAL AFFILIATIONS

Registered Professional Civil Engineer,
Oregon (No. 11677) and Washington (No. 21677)

Transportation Research Board

Institute of Transportation Engineers

American Society of Civil Engineers

CONTINUING EDUCATION

Northwestern University Traffic Institute Transportation Impacts of Land
Development Course; Seattle, WA November, 1986

ITE Site Development Transportation Impacts Conference; Orlando, FL
March, 1986

Traffic Engineering and Safety Educators Traffic Signal Systems Course;
Seattle, WA October, 1984

UMTA Alternatives Analysis Course; Portland, OR August, 1983

UMTA/FHWA Microcomputers in Transportation Course; Portland, OR
March, 1983

Univ. of California Institute for Transportation Studies Conference:
Neighborhood Transportation Planning and Management; Berkeley, CA
November, 1982

UMTA/FHWA Special Topics in UTPS Course: Sub-area Analysis;
Los Angeles, CA May, 1982

UMTA/FHWA Energy Contingency Planning Workshop; Seattle, WA July, 1979

REPORTS AND PUBLICATIONS

- "Multi-Corridor Project Traffic Analysis," accepted for publication,
Transportation Research Record, Transportation Research Board, 1987
- "Alternative Access Modes Database Project," accepted for publication,
Transportation Research Record, Transportation Research Board, 1987
(coauthor)
- Green River Valley Transportation Action Plan,
Puget Sound Council of Governments (King Subregional Council)
for Cities of Kent, Renton, Auburn, Tukwila, King County and
Washington State Department of Transportation, January, 1987
- Everett Navy Base Traffic Impact Study, Puget Sound Council of Governments for
Washington State Department of Transportation, August, 1986 (coauthor)
- "Alternative Access Modes Database Project," Compendium of Papers,
Institute of Transportation Engineers District 6/7 1986 Annual Meeting, July, 1986
- Bellevue CBD Long Range Transportation Study, Puget Sound Council of Governments (King
Subregional Council) for City of Bellevue, May, 1986 (coauthor)
- Alternative Access Modes Database Project,
Puget Sound Council of Governments (King Subregional Council), May, 1986
- Tacoma Dome Access and Parking Study, Puget Sound Council of Governments (Pierce
Subregional Council) for City of Tacoma, March, 1986
- Multi-Corridor Project Traffic Analysis,
Puget Sound Council of Governments, February, 1986
- Division Corridor Neighborhood Traffic Management Study,
for Portland Bureau of Transportation Planning & Development, October, 1985
- North Corridor Extension Project: Engineering Reconnaissance for Light Rail Transit
Alignment Options, Puget Sound Council of Governments (Snohomish Subregional
Council) for Sno-Trans, June, 1985
- Alderwood/North Creek Transportation Study, Puget Sound Council of Governments
(Snohomish Subregional Council) for Snohomish County, March, 1985 (coauthor)
- South Burlingame Neighborhood Traffic Management Plan,
for Portland Bureau of Transportation Planning & Development, February, 1985
- North Corridor Alternatives Analysis Technical Summary,
Chapter 4. Transportation Impacts, Puget Sound Council of Governments
and Municipality of Metropolitan Seattle, June, 1984
- McLoughlin Neighborhoods Project, Portland Bureau of Planning, November, 1982
- Northwest Portland Transportation Study, Portland Bureau of Planning, July, 1982

REPORTS AND PUBLICATIONS (continued)

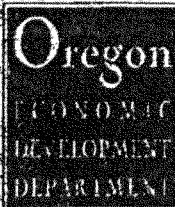
Industrial Access Study: Summary and Recommendations,
Portland Bureau of Planning, February, 1981 (coauthor)

McLoughlin Corridor Report, Portland Bureau of Planning, August, 1979

Industrial Access Study: Assessment of Transportation Access Needs,
Portland Bureau of Planning, April, 1979 (coauthor)

Zone Scheduling of Urban Bus Transit Service,
Northwestern University Masters Thesis, May 1978

MICHAEL GAMA
SUBMITAL
6/13/94



Tourism Division

March 1994

Post-It™ brand fax transmittal memo 7671		# of pages ▶ 2
To Michael Gama	From Doris Nelson	
Co.	Co. O+D	
Dept.	Phone # 986-0003	
Fax #	Fax #	

Oregon's Visitor Industry

As Oregon's economy continues to diversify, tourism plays a vital role in creating new job opportunities and strengthening local and regional economies.

In 1992, more than \$3 billion was generated statewide by visitor expenditures, a 5.6 percent increase over 1991 expenditures. This confirms that the visitor industry is not only a key economic force in Oregon, but a significant growth industry as well.

In addition to direct impacts, employment and revenue in support sectors such as business services, utilities and personal services are significant.

Oregon's visitor industry provides important entry-level jobs as well as increasing

opportunities in managerial and professional positions. It also provides important transferable skills and employment for women and minorities entering the job market.

Interestingly, tourism employment has grown at a slower rate between 1987 and 1992 (33.5%) than payroll (68%) and travel spending (72%), which in part reflects rising average wage rates in the industry. As the Oregon visitor industry matures, so do the quantity, and particularly, the quality of jobs.

Between 1987 and 1992, the growth in the tourism industry in Oregon has shown substantial increases, as indicated by the statistics below (prepared by Dean Runyan Associates):

Tourism Economic Impacts

1987: \$1.8 billion
1992: \$3.1 billion
72% increase

Tourism Employment

1987: 38,541 people
1992: 51,400 people
33.5% increase

Tourism Payroll

1987: \$355,262,000
1992: \$596,900,000
68% increase

Average Tourism Industry Wage (1991)

\$11,601 (28.6 hours/week)
\$18,666 (adjusted full-time equivalent, including tip income)

Average Tourism Proprietor Family Income (1991)

\$36,800 per year

State Tax Receipts

1987: \$48,531,000
1992: \$88,478,000
82% increase

Statewide Room Tax Receipts

1987-88: \$20 million
1992-93: \$33.7 million
68.5% increase

Visitor Volume

Total visitor volume, 1992: 23.3 million visits
7.5 million out-of-state visitors (32%)
15.8 in-state visits (68%)

Out-of-state visitors generated approximately half of all visitor expenditures in 1992 (\$1.5 billion), but comprise one-third of all visits.

1987: 6 million out-of-state visitors
1992: 7.5 million out-of-state visitors
25% increase

1992: International visitors:
397,400 Canadians
213,000 Overseas

Why Tourism in Oregon?

- Compatible with Oregon's commitment to a high quality of life and protection of the natural environment.
- Positive return on investment:
 - For every dollar the Tourism Division invests in advertising, \$19-\$20 in new visitor revenue is returned to the state.
 - For every dollar the Tourism Division invests in the State Welcome Centers, \$41 in new visitor revenue is added to the state's economy.
- Helps build rural economies; links rural and urban areas.
- Encourages regional partnerships and private-public cooperative ventures.
- Provides entrepreneurial opportunities (nearly 75% of Oregon's visitor-industry businesses have a "working proprietor" whose average annual salary is \$36,800).
- Showcases the state and often leads to other business development.
- Generates more than \$3 billion per year for local, county and state governments and businesses.
- As tourism grows, investments in facility developments improve the quality of life for all Oregonians. Since 1992, these major new attractions have been (or will be) added to our product inventory:
 - Oregon Coast Aquarium, Newport (May 1992)
 - Oregon Trail Interpretive Center, Baker City (May 1992)
 - New OMSI, Portland (October 1992)
 - Museum at Warm Springs (March 1993)
 - Pacific Northwest Museum of Natural History, Ashland (July 1994)

The Outlook?

- Nationally, the tourism industry is predicted to grow at 4 percent annually through 1995—Oregon has grown at a higher rate than this over the past six years.
- Special-Interest travel (ecotourism, heritage tourism, adventure tourism) will become more important—Oregon's outdoor activities, diverse natural beauty and historic attractions will be sought after.
- Cost-effective, safe, family-oriented destinations will become increasingly popular into the next century.
- "Niche" marketing to special-interest groups (bicyclists, jazz lovers, history buffs, etc.) will require less costly but more sophisticated marketing.

The Challenges?

- Ensuring that facility and product development (and maintenance) keep pace with marketing efforts.
- Training and preparing the visitor-industry workforce; creating career ladders and advancement opportunities in the industry.
- Seeking public-private partnerships to alleviate housing shortages during peak seasons and in primary tourism destinations.
- Maintaining local, state and regional visitor promotion budgets during difficult fiscal situations, and forming partnerships to fund tourism marketing and development projects.
- "Internationalizing" Oregon to better serve and welcome international visitors.
- Seeking ways to expand off-season tourism and alleviate congestion during peak seasons at primary locations.
- Encouraging more "packaging" of the Oregon tourism product, making it easier for consumers and the travel trade to purchase Oregon travel packages.

Oregon. Things look different here.



MULTNOMAH COUNTY OREGON

DAVE BLACK
Suzanitta L
Howard Canyon
Opponent 6/13/94

DEPARTMENT OF ENVIRONMENTAL SERVICES
DIVISION OF PLANNING
AND DEVELOPMENT
2115 S.E. MORRISON STREET
PORTLAND, OREGON 97214
(503) 248-3043

BOARD OF COUNTY COMMISSIONERS
BEVERLY STEIN • CHAIR OF THE BOARD
DAN SALTZMAN • DISTRICT 1 COMMISSIONER
GARY HANSEN • DISTRICT 2 COMMISSIONER
TANYA COLLIER • DISTRICT 3 COMMISSIONER
SHARRON KELLEY • DISTRICT 4 COMMISSIONER

02 November 1993

Jeffrey J & Taryn D Liggett
36335 S E Hurlburt Road
Corbett
Oregon - - 97019-9708

Subject: Notice of Zoning Violation (Certificate # P 426 968 046)
Property located at 36335 & 36501 S E Hurlburt Road.

Dear Mr & Ms Liggett:

Over the past year it has been brought to our attention that certain conditions relevant to land use were probably in violation of Multnomah County rules and regulations at the location referenced above. The situation reported was:

1. Land-disturbing activity on your property in the vicinity of Big Creek.
2. Operating a motor cross track with three wheeled vehicles.
3. Excessive noise at times.
4. Excessive dust created when vehicles are using the track.
5. Illegal mobile home being occupied as a dwelling.
6. Big Creek had been dammed, impeding flow.

Site statistics for the property referenced above are:

- | | |
|---------------------|---|
| 1. Site Ident | Tax Lots 77 and 66 in the southwest quarter of Section 2, Township 1 South, Range 4 East, W M |
| 2. Property Owners | Jeffrey & Taryn Liggett |
| Mail to: | 36335 S E Hurlburt Road
Corbett, Oregon 97019-9708 |
| 3. Tax Acct Numbers | R-99402-0770 and R-99402-0660 |
| 4. State ID Numbers | Not assigned yet |
| 5. Site Size | 5.00 acres (Tax Lot 77)
5.75 acres (Tax Lot 66) |

A staff person from the Zoning Code Enforcement Office made a site inspection on Friday, 29 October 1993 and noted the following from S E Hurlburt Road:

1. A large portion of the two tax lots was devoid of any vegetation. About two-thirds of the race track "oval" appeared to be on Tax Lot 66, the easterly of the two properties.
2. Two large mounds of dirt had been piled up along the southerly edge of the combined properties.
 - A. These mounds apparently had been created for the use of racing three-wheeled vehicles or motorcycles.
 - B. With binoculars it appeared that one of the two mounds observed was located at the easterly part of the two properties, adjacent to Big Creek, a Class 1 Stream.
3. On the south side of the stream, near the jumping mound, there was a well maintained picnic area (with tables).
4. Big creek appeared to be free flowing (ie there was no dam apparent).
5. Mobile home situated on the easterly half of the site It appeared to be on Tax Lot 66.
6. On two occasions during the site visit a single three-wheeled vehicle was observed travelling westbound, for a short distance, on S E Hurlburt Road (adjacent to the south edge of the property).

The base zone for the property is RR, "Rural Residential". Other portions of the Zoning Ordinance that apply to the above-described property (and activity) are HD, "Hillside Development and Erosion Control" and SEC, "Significant Environmental Concern":

MCC 11.15.2202 thru .2230 RR, "Rural Residential"

.2202 "Purposes"

The purposes of the Rural Residential District are as follows:

1. "... to provide areas for residential use for those persons who desire rural living environments;

2. "to provide standards for rural land use and development consistent with desired rural character, . . ."

It does not seem that creation and use of a race track, private or public, for motorized vehicles, is consistent with the above-quoted excerpts from the "Purposes" section as stated in the RR District.

Also, making "excessive" noise (as claimed by local residents) is not in keeping with the above "Purposes".

In addition, creating clouds of dust which drift onto adjacent properties (according to local residents) is not in keeping with the purposes section.

It could be concluded that the above reported activities taking place on your property which affect and cause discomfort to adjacent property owners is not in keeping with the rural character of the area, particularly when such activities are not agricultural in nature.

.2206, "Uses":

"No building, structure or land shall be used and no building or structure shall hereafter be erected, altered or enlarged in this district except for the uses listed in MCC .2208 through .2216."

.2208, "Primary Uses"

None of the uses listed in this section could be construed to include a race track, public or private, as an allowed use.

.2210, "Uses Permitted Under Prescribed Conditions"

(A). "Residential use, consisting of a single family dwelling constructed off-site, including a mobile or modular home, subject to the following conditions:

- (1). "Construction shall comply with the standards of the Building Code or as prescribed in ORS 446.002 through 446.200, relating to mobile homes.
- (2). "The dwelling shall be attached to a foundation for which a building permit has been obtained.
- (3). "The dwelling shall have a minimum floor area of 600 square feet."

It appears that the dwelling unit in question, a mobile home, meets the above listed requirements. Therefore the mobile home is not in violation of the RR District as previously reported.

A search of our building permit records indicates that a permit was issued on 5/28/85 to Jeff Liggett for a mobile home (permit # 850853).

Regarding the race track constructed:

None of the uses listed in this section could be construed to include a race track, public or private, as an allowed use.

.2212, "Conditional Uses"

None of the uses listed in this section could be construed to include a race track, public or private, as an allowed use.

.2214, "Accessory Uses"

None of the uses listed in this section could be construed to include a race track, public or private, as an allowed use.

The land has been modified to accommodate a particular kind of use or activity that is not allowed in the Rural Residential District.

Allowing outsiders onto the site, whether for free or a fee, to participate in such an activity (which is not an allowed use), which creates dust and noise, violates the purposes and intent of the Rural Residential District. It could also be stated that any activity which creates an adverse effect off-site is not in keeping with the purposes of the RR District.

MCC 11.15.6400 thru .6422 SEC, "Significant Environmental Concern"

.6400 "Purposes"

"The purposes of the Significant Environmental Concern subdistrict are to protect, conserve, enhance, restore, and maintain significant natural and man-made features which are of public value, including among other things, river corridors, streams, lakes and islands, . . . wetlands, wildlife and fish habitats,"

.6404 "Uses - SEC Permit Required"

"(C)" "Any building, structure, or physical improvement within 100 feet of the normal high water level of a Class 1 stream, as defined by the State of Oregon Forest Practice Rules, shall require an SEC permit under MCC .6412, regardless of the zoning designation of the site."

The property under your ownership, specifically Tax Lot 66, in the southwest quarter of Section 2, T 1 S, R 4 E, falls within this category.

Big Creek, which flows southwesterly through Tax Lot 66, crossing under Hurlburt Road, is on your property. As such, any land-disturbing activity taking place on your property within 100 feet of this water feature is required to have an SEC Permit approved prior to commencing any work.

You claimed, during our conversation that took place on Hurlburt Road last Friday, that you were familiar with protecting streams and that you maintained a fifty yard buffer between the race track and the stream.

With binoculars I observed what appeared to be a much closer relationship between a large mound of dirt and Big Creek near your picnic area.

Also, that no erosion control measures had been taken between the edge of that mound of dirt and the creek bank, which looked to be no more than twenty-five feet away. This is an estimate, since I was not invited onto your property to observe more closely.

The land-disturbing activity which has taken place could cause sedimentation into the creek and disturb the fish habitat during the rainy season.

Our records do not show that an SEC permit has been applied for or approved to cover the work that has been done within the 100 feet adjacent to Big Creek.

MCC 11.15.6700 thru .6735

HD, "Hillside Development and Erosion Control"

.6700

"Purposes"

"The purposes of the Hillside Development and Erosion Control subdistrict are to promote the public health, safety and general welfare, and minimize public and private losses due to earth movement hazards in specified areas and minimize erosion and related environmental damage in unincorporated Multnomah County"

"This subdistrict is intended to:

"(D)" "Control erosion, production and transport of sediment; and

"(E)" "Regulate land development actions including excavation and fills, drainage controls and protect exposed soil surfaces from erosive forces; and"

.6710 "Permits Required"

"(B)" "Grading and Erosion Control Permit"

"All persons proposing site grading where the volume of soil or earth material disturbed, stored, disposed of, or used as fill exceeds 50 cubic yards, or which obstruct or alter a drainage course, shall obtain a Grading and Erosion Control Permit as prescribed by this subdistrict, unless exempted by MCC .6715(B)(2) through (8) or .6715(C)."

Regarding .6710 "(B)" noted above:

1. The amount of material "disturbed" and placed in mounds appears to exceed fifty (50) cubic yards.
2. The fill material, being at least partially within the 100 feet adjacent to Big Creek, also requires an SEC Permit.
3. A search of our records does not show that a "Grading and Erosion Control Permit" or an SEC Permit has been applied for or approved.

From the observations made it can be concluded that the activity which has been taking place on your property is in violation of the RR, "Rural Residential" section (MCC 11.15.2202 - 2230), SEC, "Significant Environmental Concern" section (MCC 11.15.640 - 6422), and the HD, "Hillside Development and Erosion Control" section (MCC 11.15.6700 - 6735) of the County Zoning Ordinance.

As the property owner of record you are responsible for such activity. You are hereby respectfully requested to comply immediately with the provisions of the County's "Rural Residential", "Significant Environmental Concern", and "Hillside Development and Erosion Control" portions of the Zoning Ordinance.

If you feel that you have received this notice in error, please respond in writing. It is important to include copies of pertinent documents pertaining to permits issued, etc to support your claim.

It is hoped that this matter can be resolved in a voluntary, cooperative manner. If satisfactory resolution of this item has not been completed within 30 days, however, the matter will be referred to Multnomah County Counsel with a request for legal action to cause the property to be brought into compliance with Zoning standards.

If you have any questions regarding Flood Hazard or Hillside Development and Erosion Control please contact Mark R Hess, Planner, at this office ('phone 248-3043). Mr Hess is usually available for consultation daily between 3:00 P M and 4:30 P M. It is recommended that you 'phone for an appointment prior to coming to the Planning Division Office.

Sincerely,



Irving G Ewen

Zoning Code Enforcement Office

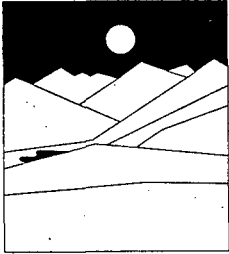
Encl

MCC 11.15.2202 thru .2230, RR, "Rural Residential"

MCC 11.15.6400 thru .6422, SEC, "Significant Environmental Concern"

MCC 11.15.6700 thru .6735, HD, "Hillside Development & Erosion Control"

This notice is issued in accordance with Chapter 11.15 of the Multnomah County Code. Pursuant to MCC 11.15.9053 (Penalties), failure to remedy violation will result in a fine of up to \$500.00 for each day the violation continues beyond this 30 day notice period.



**OREGON
NATURAL
RESOURCES
COUNCIL**

MAIN OFFICE

YEON BUILDING, SUITE 1050
522 SOUTHWEST FIFTH AVENUE
PORTLAND, OREGON 97204
503-223-9001

*Protecting Oregon's lands,
waters and natural resources*

TO: Honorable Chair Stein and Multnomah County Commissioners

FR: Lyn Mattei, ONRC Land Use Director *LM*

DT: June 13, 1994

RE: Multnomah West Hills and Howard Canyon Reconciliation
Hearing, June 13, 1994

The Oregon Natural Resources Council has been involved in Multnomah County's Goal 5 Periodic Review process for at least two years. We commend the County for the major efforts it has made to comply with the Department of Land Conservation and Development's (LCDC's) complicated, sometimes unreasonable, and seemingly punitive compliance directives. We are pleased that the County's May 23, 1994 Reconciliation Report recommends protection of the major wildlife corridor which is part of Forest Park. We find, however, that the Report is lacking in the following areas:

1. Agricultural Uses

Agricultural uses in the West Hills and especially Howard Canyon need affirmative regulation to maximize protection of riparian areas and to minimize sedimentation, erosion, turbidity, high temperatures, and non-point pollution in adjacent streams. Reliance on the Soil Conservation Service to regulate rural agricultural activities is misplaced and inadequate. Rural stream identification and protection need to be a priority.

2. Fish and Wildlife Resources

The Reconciliation Report's ESEE analysis for Howard Canyon apparently omits any consideration of ESEE consequences for wildlife. This is unacceptable. In addition, the Report fails to include fisheries resources in its ESEE analysis of uses that conflict with mining. Fish and wildlife resources are critical natural resources expressly included under Goal 5 and must be factored into any ESEE analysis of aggregate uses.

Proposed stream protection in both the West Hills and Howard Canyon are inadequate. At a minimum, the County should adopt protection at least as strong as that provided under Clinton's new forestry plan. In the alternative, the

County could even adopt the weaker stream protection rules which will go into effect in September 1994 under our Forest Practices Act regulations.

3. Burlington Bottoms

Burlington Bottoms is a significant wetland of local and regional concern and is recognized as a wildlife mitigation area of state-wide concern. The wetlands area was purchased and enhanced by Bonneville Power as a major mitigation site. BPA gave Burlington Bottoms to the County to protect and maintain, and the County turned it over to Metro.

Although the County has been entrusted with the maintenance and protection of Burlington Bottoms, its designation in the impact area found in the reconciliation Report eliminates almost all protection for this critical wetland. Although we are happy that the County has decided to protect the wildlife corridor adjacent to Forest Park, this does not justify the sacrifice of Burlington Bottoms. As proposed, the wetland will be degraded and probably eventually destroyed by excess sedimentation and polluted runoff from Angel Brothers Quarry activities. No mining activity should be allowed in the North Angel Brothers Creek watershed or in any other watershed that empties into Burlington bottoms.

Thank you for your time and consideration.


R.Scott Pemble
Planning Director
Department of Environmental Services
Division of Planning and Development
2115 SE Morrison Street
Portland, OR 97214

6/13/94
SUBMITTAL
STEVE DIXON

June, 11, 1994

The Corbett Water District operates under a domestic water supply permit.

Commercial and industrial customers, like a commercial industrial rock mining operation, can only receive surplus water from the Corbett Water District. As specified in Oregon State Regulation ORS 264.310, water supply cannot be guaranteed to commercial/industrial operations. If supplied, it must be immediately canceled when no surplus water exists. Please evaluate and include the ESEE consequences of this information in the Howard Canyon aggregate site analysis


Douglas Dodd


Jim Mastne

Directors, Corbett Water District Board

6/13/94

Submittal

Steve Dixon

I am a licensed realtor with 20/20 properties.

I am a long time resident of Corbett, and I also list and sell property in Corbett.

In general, a rock quarry will reduce the value of homes in the vicinity of the quarry. If two homes are exactly the same in all respects, but one is located in the vicinity of a rock quarry, and the other isn't, the one near the rock quarry will be worth less.

In particular, I know about the Howard Canyon rock quarry and I am familiar with the surrounding area.

[If the quarry expands into a commercial quarry, my opinion is that property values will drop

As an example of the impact a quarry has on sales, I remember showing some buyers a home close to a rock quarry in Scappoose. The buyers liked the home, and the buyers liked the rural setting, but when they were told about the rock quarry they were no longer interested. The rock quarry was not even in sight of the home, but the fear of having to compete with large dump trucks on the same small road, and the fear of the noise they might hear was enough to kill their interest.

A seller will have to compensate for these problems by adjusting the price down.

Mike Grow, 20/20 Properties

Please include this information in your ESEE analysis for Howard Canyon. We would also like you to keep the record open for One week, in order to have enough time to submit additional written testimony by Real Estate Professionals which attest to the provable reduction in value of existing homes next to Industrial Mining and Quarry operations.

June 13, 1994

Multnomah County Board of Commissioners
Portland, Oregon

RE: Howard Canyon Rock Quarry Site
Reconciliation Report

Honorable Commissioners:

The Proposition that the Howard Canyon Rock Quarry site be designated a Goal 5 protected natural resource is unacceptable.

The present "Permit of Exemption" which allows 5,000 cubic ~~feet~~^{yards} of rock be removed each year already exceeds logic. That amounts to some 500 truck-loads each year, or about two truck-loads each weekday all year 'round.

If the site were designated a "Protected Area", an industrial-level rock mining operation would be developed at the end of a dead-end road which serves a rural neighborhood residential area.

There has been no defined impact area, as is necessary to make such a determination. There are three year-round streams that would be impacted.

At this time, there are approximately twelve residences along the Howard Canyon Road, which are served by a school bus.

The entire road is one and one-third miles long. It is winding and without shoulders, turn-outs. The last half-mile is single-vehicle width. In order to accommodate an industrial-level gravel pit operation, taxpayers would need to fund major widening and upgrading of the road.

The frequent heavy-weight traffic increase to a little-traveled road would constitute a major change and impact to this neighborhood.

The conflicting uses these combinations of residential and industrial uses would create far outweigh the Goal 5 requirement for protection of Oregon's mineral resources.

I recommend that the Howard Canyon Rock Quarry site NOT be designated a "Protected Area."

Sincerely,

Vera Dafoe

Vera Dafoe
9449 SW 62nd Drive
Portland, OR 97219
244-5202



METRO

BOARD OF
COUNTY COMMISSIONERS

1994 JUN 22 AM 8 37

MULTNOMAH COUNTY
OREGON

Multnomah County Board of Commissioners
c/o The Clerk of the Board
1120 SW Fifth Avenue
Portland, Oregon 97204

Multnomah County Planning Commission
c/o Scott Pemble, Director
2115 SE Morrison
Portland, Oregon 97214

June 17, 1994

Re: Follow-up Comments, "Howard Canyon Reconciliation
Report", (May 23, 1994)

Dear Commissioners;

Thank you for the opportunity to submit additional comments
related to the "Howard Canyon Reconciliation Report".

Hopefully, the following will be of value in your
deliberations regarding the proposed program to protect
streams which have been found to be significant.

1). Please find attached excerpts from "Standards and
Guidelines for Management of Habitat for Late-Successional
and Old-Growth Forest Related Species Within the Range of
the Northern Spotted Owl" (BLM, USFS, April 1994) and
excerpts from the State Forestry Department's Administrative
Rules, which were recently amended to strengthen protection
of streams and riparian corridors.

We are submitting these documents for three (3)
reasons:

a). To demonstrate the vast disparity between the
regulation of timber harvest activities, agricultural
activities and other uses in the vicinity of streams.

b). To demonstrate that protection measures do not result in the loss of economic use or value of private lands.

c). To provide examples of measurable and enforceable standards and guidelines which are lacking in the proposed "protection program" (see our June 13, 1994 letter).

2). In an attempt to support the recommendation of not regulating agricultural practices within riparian areas, County staff states the US Soil and Water Conservation Service and East Multnomah Soil and Water Conservation District have as one of their primary missions, the promotion of sound agricultural practices which protect streams.

While this may be true, our inquiry with the East County Soil and Water Conservation District (pers. comm. Steve Fedji, June 13, 1994) indicates that no program is in place to achieve the mission.

Staff to the District Board stated that all they currently are able to do is respond to calls for technical advise. Mr. Fedji also indicated that district efforts have recently been focused on urban rather than rural streams. Additionally, we are unaware of any active program related to stream protection or restoration which is currently being pursued by the US Soil and Water Conservation District.

Perhaps planning staff could investigate and report on specific projects within Multnomah County which target streams degraded by agricultural practices. (See attached "Oregonian" article on "silt").

3). BLM is the Federal Agency responsible for managing the Sandy River segment which is designated a National Wild and Scenic River. Big Creek is tributary to this segment. We have inquired whether BLM was consulted or notified of this process which has implications for the Sandy River. BLM's response was that they were unaware that this process had been initiated. It is recommended that BLM's comments be requested. Bob Radcliff of the Salem Office is the appropriate contact. He can be reached at (503) 375-5669.

4). Through Jane Hart (Regional Parks and Greenspaces Planner), Gordon Howard (County Planning staff) has inquired how we would propose to fund the enforcement and restoration components of our proposal regarding agricultural practices.

In response we suggest the following:

a). As noted on pg. 9 of our written comments dated June 13, 1994 we recommended that the County consider limiting use of its annual appropriation to the East County Soil and Water Conservation District to activities related to restoring agriculturally degraded streams and wetlands. Furthermore, should the County adopts agricultural restrictions as we've recommended, an effort should be made to determine the feasibility of delegating enforcement authority to the District.

b). In the event, that the current County appropriation to the District is insufficient for the purposes described above, the County could investigate the possibility of amending MCC Title 5.30 (Motor Vehicle Fuel Tax; excerpt attached).

As currently structured, this ordinance allows a full refund of County Fuel Taxes to "farmers" who have utilized the taxed fuels for "farming operations". We believe the County has the authority to amend this provision. Rather than refund fuel taxes which are already paid, the County could direct those funds (or a portion thereof) towards enforcement and especially restoration efforts on agricultural lands such as fencing to exclude livestock and re-establishment of riparian vegetation.

c). As an alternative, the County could consider tapping its one million dollar contingency fund. We believe that \$50,000 - \$70,000 would allow for an initial enforcement and restoration effort.

d). Once a basic level of County support is implemented for this type of program, we believe there are several "outside" funding sources which could be tapped to leverage County funds. These include but are not limited to:

- 1). Governor's Watershed Enhancement Board - Administers a grant program for watershed restoration.
- 2). ODFW Restoration and Enhancement Program - Grant Program for fish and wildlife related projects.
- 3). Oregon State Lottery Funds - awards have been made for environmental enhancement/restoration projects.
- 4). Land and Water Conservation Fund - Federal funds administered by Oregon State Parks for state and local projects.
- 5). Americorps - A Clinton program designed to put youth to work restoring degraded portions of the environment.
- 6). Metro Greenspaces Restoration Grants - Under certain conditions, this program could be a funding source for restoration of riparian corridors degraded by agricultural practices.
- 7). DEQ Section 319 Non-point Source Grant Program - Agriculture is considered a non-point pollution source.

In summary, We believe a program could be crafted which would not require new taxes or require anything more from farm operators than cooperation. However, in order for a program to be successful, it is imperative that you adopt restrictions which assure restoration efforts are not reversed or new degradation problems created by conflicting land uses.

In summary, a more aggressive program is required to protect significant streams from the impacts of residential, agricultural, community service and other conditional uses. We have proposed what we believe are the minimum requirements to achieve protection (see June 13, 1994 letter).

As evidenced by both federal and state rules and guidelines, timber harvest has been regulated in an effort to protect streams and their associated values without sacrificing economic use of public or private lands. Similar restrictions should be implemented by the County for the uses noted above.

There are opportunities to develop an enforcement and restoration program which would not require new taxes and be leveraged with funds available from existing regional, state and federal programs.

What is missing at this point is your commitment to crafting and implementing a program which is so desperately needed for these and other degraded but restorable streams throughout the County. Metro Regional Parks and Greenspaces would like to participate in the development and implementation of such a program. We hope to hear from you soon.

Thank you again for considering our comments.

Sincerely,



Charles Ciecko
Director
Metro Regional Parks and Greenspaces

CC: Steve Oulman, Dept. of Land Conservation and Development
Robert Walke, Bonneville Power Administration
Jill Zarnowitz, Oregon Department of Fish and Wildlife
Neil Mullane, Oregon Dept. of Environmental Quality
Bob Radcliff, Bureau of Land Management
Rena Cusma, Metro
Judy Wyers, Metro
Merrie Waylett, Metro

CC/mb

hcrr2.let



United States
Department of
Agriculture

Forest Service



United States
Department of
the Interior

Bureau of Land
Management



April 1994

Record of Decision

for Amendments to Forest Service and Bureau
of Land Management Planning Documents
Within the Range of the Northern Spotted Owl

Standards and Guidelines

for Management of Habitat for Late-
Successional and Old-Growth Forest Related
Species Within the Range of the Northern
Spotted Owl



Riparian Reserves

Acres

Key and non-Key Watersheds are specified for all areas, and therefore overlay all other land allocations. For the portion of Riparian Reserves located within Key Watersheds, standards and guidelines for Key Watersheds (see Key Watersheds on page C-7, and the Aquatic Conservation Strategy starting on page B-9 of these standards and guidelines), as well as standards and guidelines for Riparian Reserves (listed below) apply. See additional detail under Hierarchy of Standards and Guidelines on page C-1 of these standards and guidelines.

Riparian Reserves within Tier 1 Key Watersheds	631,000
Riparian Reserves within Tier 2 Key Watersheds	113,700
Riparian Reserves within non-Key (other) Watersheds	<u>1,882,800</u>
Total Riparian Reserve acres (based on samples)	2,627,500

Acreage of Riparian Reserves is calculated after all other designated areas have been calculated. Thus, the acres shown here are only those acres that are interspersed with matrix. However, Riparian Reserve standards and guidelines apply in the other designated area categories.

Description - Riparian Reserve Widths

Riparian Reserves, as described in detail in the Aquatic Conservation Strategy starting on page B-9 of these standards and guidelines, are specified for five categories of streams or waterbodies as follows:

- *Fish-bearing streams* - Riparian Reserves consist of the stream and the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet total, including both sides of the stream channel), whichever is greatest.
- *Permanently flowing nonfish-bearing streams* - Riparian Reserves consist of the stream and the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance (300 feet total, including both sides of the stream channel), whichever is greatest.
- *Constructed ponds and reservoirs, and wetlands greater than 1 acre* - Riparian Reserves consist of the body of water or wetland and: the area to the outer edges of the riparian vegetation, or to the extent of seasonally saturated soil, or the extent of unstable and potentially unstable areas, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance from the edge of the wetland greater than

1 acre or the maximum pool elevation of constructed ponds and reservoirs, whichever is greatest.

- *Lakes and natural ponds* - Riparian Reserves consist of the body of water and: the area to the outer edges of the riparian vegetation, or to the extent of seasonally saturated soil, or to the extent of unstable and potentially unstable areas, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance, whichever is greatest.
- *Seasonally flowing or intermittent streams, wetlands less than 1 acre, and unstable and potentially unstable areas* - This category applies to features with high variability in size and site-specific characteristics. At a minimum, the Riparian Reserves must include:

The extent of unstable and potentially unstable areas (including earthflows),

The stream channel and extend to the top of the inner gorge,

The stream channel or wetland and the area from the edges of the stream channel or wetland to the outer edges of the riparian vegetation, and

Extension from the edges of the stream channel to a distance equal to the height of one site-potential tree, or 100 feet slope distance, whichever is greatest.

A site-potential tree height is the average maximum height of the tallest dominant trees (200 years or older) for a given site class.

Intermittent streams are defined as any nonpermanent flowing drainage feature having a definable channel and evidence of annual scour or deposition. This includes what are sometimes referred to as ephemeral streams if they meet these two physical criteria.

Standards and Guidelines

Also see Standards and Guidelines Common to all Land Allocations starting on page C-2 of these standards and guidelines.

As a general rule, standards and guidelines for Riparian Reserves prohibit or regulate activities in Riparian Reserves that retard or prevent attainment of the Aquatic Conservation Strategy objectives. Watershed analysis and appropriate NEPA compliance is required to change Riparian Reserve boundaries in all watersheds.

Timber Management

TM-1. Prohibit timber harvest, including fuelwood cutting, in Riparian Reserves, except as described below. Riparian Reserve acres shall not be included in calculations of the timber base.

- a. Where catastrophic events such as fire, flooding, volcanic, wind, or insect damage result in degraded riparian conditions, allow salvage and fuelwood cutting if required to attain Aquatic Conservation Strategy objectives.
- b. Salvage trees only when watershed analysis determines that present and future coarse woody debris needs are met and other Aquatic Conservation Strategy objectives are not adversely affected.
- c. Apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives.

Roads Management

RF-1. Federal, state, and county agencies should cooperate to achieve consistency in road design, operation, and maintenance necessary to attain Aquatic Conservation Strategy objectives.

RF-2. For each existing or planned road, meet Aquatic Conservation Strategy objectives by:

- a. minimizing road and landing locations in Riparian Reserves.
- b. completing watershed analyses (including appropriate geotechnical analyses) prior to construction of new roads or landings in Riparian Reserves.
- c. preparing road design criteria, elements, and standards that govern construction and reconstruction.
- d. preparing operation and maintenance criteria that govern road operation, maintenance, and management.
- e. minimizing disruption of natural hydrologic flow paths, including diversion of streamflow and interception of surface and subsurface flow.
- f. restricting sidecasting as necessary to prevent the introduction of sediment to streams.
- g. avoiding wetlands entirely when constructing new roads.

RF-3. Determine the influence of each road on the Aquatic Conservation Strategy objectives through watershed analysis. Meet Aquatic Conservation Strategy objectives by:

- a. reconstructing roads and associated drainage features that pose a substantial risk.
- b. prioritizing reconstruction based on current and potential impact to riparian resources and the ecological value of the riparian resources affected.

- c. closing and stabilizing, or obliterating and stabilizing roads based on the ongoing and potential effects to Aquatic Conservation Strategy objectives and considering short-term and long-term transportation needs.

RF-4. New culverts, bridges and other stream crossings shall be constructed, and existing culverts, bridges and other stream crossings determined to pose a substantial risk to riparian conditions will be improved, to accommodate at least the 100-year flood, including associated bedload and debris. Priority for upgrading will be based on the potential impact and the ecological value of the riparian resources affected. Crossings will be constructed and maintained to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.

RF-5. Minimize sediment delivery to streams from roads. Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is unfeasible or unsafe. Route road drainage away from potentially unstable channels, fills, and hillslopes.

RF-6. Provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams.

RF-7. Develop and implement a Road Management Plan or a Transportation Management Plan that will meet the Aquatic Conservation Strategy objectives. As a minimum, this plan shall include provisions for the following activities:

- a. inspections and maintenance during storm events.
- b. inspections and maintenance after storm events.
- c. road operation and maintenance, giving high priority to identifying and correcting road drainage problems that contribute to degrading riparian resources.
- d. traffic regulation during wet periods to prevent damage to riparian resources.
- e. establish the purpose of each road by developing the Road Management Objective.

Grazing Management

GM-1. Adjust grazing practices to eliminate impacts that retard or prevent attainment of Aquatic Conservation Strategy objectives. If adjusting practices is not effective, eliminate grazing.

GM-2. Locate new livestock handling and/or management facilities outside Riparian Reserves. For existing livestock handling facilities inside the Riparian Reserve, ensure that Aquatic Conservation Strategy objectives are met. Where these objectives cannot be met, require relocation or removal of such facilities.

GM-3. Limit livestock trailing, bedding, watering, loading, and other handling efforts to those areas and times that will ensure Aquatic Conservation Strategy objectives are met.

Recreation Management

RM-1. New recreational facilities within Riparian Reserves, including trails and dispersed sites, should be designed to not prevent meeting Aquatic Conservation Strategy objectives. Construction of these facilities should not prevent future attainment of these objectives. For existing recreation facilities within Riparian Reserves, evaluate and mitigate impact to ensure that these do not prevent, and to the extent practicable contribute to, attainment of Aquatic Conservation Strategy objectives.

RM-2. Adjust dispersed and developed recreation practices that retard or prevent attainment of Aquatic Conservation Strategy objectives. Where adjustment measures such as education, use limitations, traffic control devices, increased maintenance, relocation of facilities, and/or specific site closures are not effective, eliminate the practice or occupancy.

RM-3. Wild and Scenic Rivers and Wilderness management plans will address attainment of Aquatic Conservation Strategy objectives.

Minerals Management

MM-1. Require a reclamation plan, approved Plan of Operations, and reclamation bond for all minerals operations that include Riparian Reserves. Such plans and bonds must address the costs of removing facilities, equipment, and materials; recontouring disturbed areas to near pre-mining topography; isolating and neutralizing or removing toxic or potentially toxic materials; salvage and replacement of topsoil; and seedbed preparation and revegetation to meet Aquatic Conservation Strategy objectives.

MM-2. Locate structures, support facilities, and roads outside Riparian Reserves. Where no alternative to siting facilities in Riparian Reserves exists, locate them in a way compatible with Aquatic Conservation Strategy objectives. Road construction will be kept to the minimum necessary for the approved mineral activity. Such roads will be constructed and maintained to meet roads management standards and to minimize damage to resources in the Riparian Reserve. When a road is no longer required for mineral or land management activities, it will be closed, obliterated, and stabilized.

MM-3. Prohibit solid and sanitary waste facilities in Riparian Reserves. If no alternative to locating mine waste (waste rock, spent ore, tailings) facilities in Riparian Reserves exists, and releases can be prevented, and stability can be ensured, then:

- a. analyze the waste material using the best conventional sampling methods and analytic techniques to determine its chemical and physical stability characteristics.

- b. locate and design the waste facilities using best conventional techniques to ensure mass stability and prevent the release of acid or toxic materials. If the best conventional technology is not sufficient to prevent such releases and ensure stability over the long term, prohibit such facilities in Riparian Reserves.
- c. monitor waste and waste facilities after operations to ensure chemical and physical stability and to meet Aquatic Conservation Strategy objectives.
- d. reclaim waste facilities after operations to ensure chemical and physical stability and to meet Aquatic Conservation Strategy objectives.
- e. require reclamation bonds adequate to ensure long-term chemical and physical stability of mine waste facilities.

MM-4. For leasable minerals, prohibit surface occupancy within Riparian Reserves for oil, gas, and geothermal exploration and development activities where leases do not already exist. Where possible, adjust the operating plans of existing contracts to eliminate impacts that retard or prevent the attainment of Aquatic Conservation Strategy objectives.

MM-5. Salable mineral activities such as sand and gravel mining and extraction within Riparian Reserves will occur only if Aquatic Conservation Strategy objectives can be met.

MM-6. Include inspection and monitoring requirements in mineral plans, leases or permits. Evaluate the results of inspection and monitoring to effect the modification of mineral plans, leases and permits as needed to eliminate impacts that retard or prevent attainment of Aquatic Conservation Strategy objectives.

Fire/Fuels Management

FM-1. Design fuel treatment and fire suppression strategies, practices, and activities to meet Aquatic Conservation Strategy objectives, and to minimize disturbance of riparian ground cover and vegetation. Strategies should recognize the role of fire in ecosystem function and identify those instances where fire suppression or fuels management activities could be damaging to long-term ecosystem function.

FM-2. Locate incident bases, camps, helibases, staging areas, helispots and other centers for incident activities outside Riparian Reserves. If the only suitable location for such activities is within the Riparian Reserve, an exemption may be granted following review and recommendation by a resource advisor. The advisor will prescribe the location, use conditions, and rehabilitation requirements. Use an interdisciplinary team to predetermine suitable incident base and helibase locations.

FM-3. Minimize delivery of chemical retardant, foam, or additives to surface waters. An exception may be warranted in situations where overriding immediate safety imperatives exist, or, following review and recommendation by a resource advisor, when an escape would cause more long-term damage.

Forestry Dept. Administrative Rules

WATER PROTECTION RULES; PURPOSE AND GOALS

629-57-2000

(1) The leading use on private forestland is the growing and harvesting of trees, consistent with sound management of soil, air, water, fish and wildlife resources. There is a unique concentration of public resource values in and near waters of the state because these areas are critical for the overall maintenance of fish and wildlife and for maintaining water quality. Consequently, the policies of the Forest Practices Act, including encouraging economically efficient forest practices, are best achieved by focusing protection measures in riparian management areas.

(2) OAR 629-57-2000 through 629-57-2670 shall be known as the "water protection rules."

(3) The purpose of the water protection rules is to protect, maintain and, where appropriate, improve the functions and values of streams, lakes, wetlands, and riparian management areas. These functions and values include water quality, hydrologic functions, the growing and harvesting of trees, and fish and wildlife resources.

(4) The water protection rules include general vegetation retention prescriptions for streams, lakes and wetlands that apply where current vegetation conditions within the riparian management area have or are likely to develop characteristics of mature forest stands in a "timely manner." Landowners are encouraged to manage stands within riparian management areas in order to grow trees in excess of what must be retained so that the excess may be harvested.

(5) The water protection rules also include alternative vegetation retention prescriptions for streams to allow incentives for operators to actively manage vegetation where existing vegetation conditions are not likely to develop characteristics of mature conifer forest stands in a "timely manner."

(6) OARs 629-57-2270 and 629-57-2320 allow an operator to propose site-specific prescriptions for sites where specific evaluation of vegetation within a riparian management area and/or the condition of the water of the state is used to identify the appropriate practices for achieving the vegetation and protection goals.

(7) The overall goal of the water protection rules is to provide resource protection during operations adjacent to and within streams, lakes, wetlands and riparian management areas so that, while continuing to grow and harvest trees, the protection goals for fish, wildlife, and water quality are met.

(a) The protection goal for water quality (as prescribed in ORS 527.765) is to ensure through the described forest practices that, to the maximum extent practicable, non-point source discharges of pollutants resulting from forest operations do not impair the achievement and maintenance of the water quality standards.

(b) The protection goal for fish is to establish and retain vegetation consistent with the vegetation retention objectives described in OAR 629-57-2220 (streams), OAR 629-57-2300 (significant wetlands), and OAR 629-57-2400 (lakes) that will maintain water quality and provide aquatic habitat components and functions such as shade, large woody debris, and nutrients.

(c) The protection goal for wildlife is to establish and retain vegetation consistent with the vegetation retention objectives described in OAR 629-57-2220 (streams), OAR 629-57-2300 (significant wetlands), and OAR 629-57-2400 (lakes) that will maintain water quality and habitat components such as live trees of various species and size classes, shade, snags, downed wood, and food within riparian management areas. For wildlife species not necessarily reliant upon riparian areas, habitat in riparian management areas is also emphasized in order to capitalize on the multiple benefits of vegetation retained along waters for a variety of purposes.

WATER PROTECTION RULES; APPLICABILITY AND MONITORING

OAR 629-57-2010

(1) Except as described below, the water protection rules shall become effective on September 1, 1994 and shall be applied as follows:

(a) Operations for which a notification has been received after April 22, 1994, must comply with the water protection rules in all portions of the operation that have not been felled prior to September 1, 1994.

(b) Operations for which a notification has been received and a written plan has been approved by the State Forester on or before April 22, 1994, shall continue to comply with the written plan and the rules that were in effect April 21, 1994, through December 31, 1994, unless the operator has requested and the State Forester has approved a change to the water protection rules as allowed in subsection (1)(d).

(c) After December 31, 1994 the water protection rules shall apply fully to all operations.

(d) Operators may request to have the water protection rules apply to an operation at any time following April 22, 1994. The State Forester shall approve such requests so long as the operator will fully apply the water protection rules on the operation.

(2) (a) For the purposes of the Oregon Forest Practices Act (ORS 527.610 to ORS 527.770, and related sections, Chapter 919, Oregon Laws 1991), Type F and Type D streams classified under OAR 629-57-2100 are equivalent to "Class I streams."

(b) For the purposes of ORS 215.730(1)(b)(c), Type N Streams classified under OAR 629-57-2100 are equivalent to "Class II streams."

(3) (a) Monitoring and evaluation of the water protection rules are necessary because of the innovative approach taken in the rules. Monitoring and evaluation are needed to increase the level of confidence of all concerned that the rules will maintain and improve the condition of riparian vegetation and waters of the state over time.

(b) In cooperation with state and federal agencies, landowners and other interested parties, the department shall conduct monitoring on a continuing basis to evaluate the effectiveness of the water protection rules. The monitoring shall determine the effectiveness of the rules to meet the goals of the Forest Practices Act and the purposes stated in the rules, as well as their workability and operability.

(c) It is the Board of Forestry's intent that the department and its cooperators place a high priority on assessing the monitoring needs and securing adequate resources to conduct the necessary monitoring. The department shall work with its cooperators and the Legislature to secure the necessary resources, funding and coordination for effective monitoring.

(d) The department shall report to the Board of Forestry annually about current monitoring efforts and, in a timely manner, present findings and recommendations for changes to practices. The Board of Forestry shall consider the findings and recommendations and take appropriate action.

WATERSHED SPECIFIC PRACTICES FOR WATER QUALITY LIMITED WATERSHEDS AND THREATENED OR ENDANGERED AQUATIC SPECIES.

629-57-2020

(1) The objective of this rule is to describe a process for determining whether additional watershed specific protection rules are needed for watersheds that have been designated as water quality limited or for watersheds containing threatened or endangered aquatic species.

(2) The Board of Forestry shall appoint an interdisciplinary task force, including representatives of forest landowners within the watershed and appropriate state agencies, to evaluate a watershed, if the board has determined based on evidence presented to it that forest practices in a watershed are measurably limiting to water quality achievement or species maintenance, and either:

(a) The watershed is designated by the Environmental Quality Commission as water quality limited; or

(b) The watershed contains threatened or endangered aquatic species identified on lists that are adopted by rule by the State Fish and Wildlife Commission, or are federally listed under the Endangered Species Act of 1973 as amended.

(3) The board shall direct the task force to analyze conditions within the watershed and recommend watershed-specific practices to ensure water quality achievement or species maintenance.

(4) The board shall consider the report of the task force and take appropriate action.

(5) Nothing in this rule shall be interpreted to limit the Board's ability to study and address concerns for other species on a watershed basis.

WRITTEN PLANS FOR STREAMS, LAKES, WETLANDS AND RIPARIAN MANAGEMENT AREAS

629-57-2030

(1) Operators shall obtain written approval from the State Forester of a written plan before conducting any operation requiring notification under OAR 629-24-107 within:

(a) 100 feet of fish use or domestic water use streams (classified as Type F or Type D under OAR 629-57-2100), except as described in section (3) of this rule.

(b) 300 feet of significant wetlands.

(c) 100 feet of large lakes.

(2) In addition to the written plan requirements in OAR 629-24-113(6), operators shall specifically describe in the written plan for operations within 100 feet of domestic water use portions of Type F or D streams the practices and methods that will be used to prevent sediment from entering waters of the state.

(3) The State Forester may waive, in writing, the requirement for a written plan within 100 feet of a Type F or Type D stream, if the State Forester determines the intended forest practice will not directly affect the physical components of the riparian management area. "Physical components" means materials such as, but not limited to, vegetation, snags, rocks, and soil. "Directly affect" means that physical components will be moved, disturbed, or otherwise altered by the operation activity, even if only temporarily.

(4) Written plans required under section (1) of this rule are subject to the process required for a written plan pursuant to ORS 527.670 (8) through (12), and appeal pursuant to ORS 527.700.

(5) The operator shall comply with all provisions of an approved written plan.

WATER CLASSIFICATION

629-57-2100

(1) The purpose of this water classification system is to match the physical characteristics and beneficial uses of a water body to a set of appropriate protection measures.

(2) For the purposes of applying appropriate protection measures, waters of the state shall be classified as either streams, wetlands, or lakes.

(3) Streams shall be classified further according to their beneficial uses and size.

(4) Streams shall be classified into one of the following three beneficial use categories:

(a) Streams that have fish use, including fish use streams that have domestic water use, shall be classified as Type F.

(b) Streams that have domestic water use, but not fish use, shall be classified as Type D.

(c) All other streams shall be classified as Type N.

(5) For purposes of classification, a stream is considered to have domestic water use only if a water use permit has been issued by the Oregon Water Resources Department.

(6) A channel is considered to have domestic water use upstream of an intake for the distances indicated below:

(a) For domestic water use that is a community water system (as defined under OAR 333-61-020), Type D classification shall initially apply to the length of stream that was designated as Class I under the classification system that was in effect on April 22, 1994, which is that shown on district water classification maps at the time of adoption of this rule.

(b) For domestic water use that is not a community water system, Type D classification shall be initially applied for the shortest of the following distances:

(A) The distance upstream of the intake to the farthest upstream point of summer surface flow;

(B) Half the distance from the intake to the drainage boundary; or

(C) 3000 feet upstream of the intake.

(c) Type D classification shall apply to tributaries off the main channel as long as the conditions of subsections (6)(a) and (b) of this rule apply.

(7) (a) A representative of a community water system or other domestic use water permit holder may request that the department designate additional lengths of channels upstream of a domestic water intake or reservoir as Type D. The representative or permit holder must present evidence that the additional stream

protection is needed. The department will decide whether or not to extend Type D classification to these other channels based on evidence presented by the requesting party showing that protection measures associated with Type N classification would be insufficient to prevent adverse detrimental temperature increases, turbidity increases, or other adverse water quality changes at the domestic water use intake or reservoir.

(b) The process and criteria described in subsection (7)(a), and the criteria under section (6) of this rule will be used to evaluate the extent of Type D classification for new community water systems.

(c) The department will decide whether or not to extend the length of Type D classification within 30 days of the presentation of evidence.

(8) The domestic water use classification may be waived by the department at the request of a landowner who is the sole domestic water use permit holder for an intake and who owns all the land along upstream channels that would be affected by the classification related to that intake. This waiver shall not affect the classification related to downstream domestic water use intakes.

(9) A stream or lake will be considered to have fish use if inhabited at any time of the year by anadromous or game fish species or fish that are listed as threatened or endangered species under the federal or state endangered species acts.

(10) The fish use classification does not apply to waters where fish were introduced through a fish stocking permit that includes documentation that the stream had no fish prior to stocking.

(11) The department, with assistance from the Oregon Department of Fish and Wildlife, will conduct a comprehensive field survey to identify fish use on non-federal forestland in Oregon. However, this survey will take a number of years to complete. In the interim, the following procedures apply to determining which unsurveyed waters are designated Type F:

(a) The department will assume that waters have fish use if they were Class I under the previous classification system. Waters that were Class I solely because of domestic water use are excluded.

(b) If waters within the boundaries of a proposed operation were not Class I (under the previous classification system) and fish use is unknown, then:

(A) The department will conduct a field survey for fish after a notification of operation is received; or

(B) The department will approximate the upstream extent of fish use in a watershed by considering the connection of the water with downstream waters where fish use is known. Fish use will be assumed to occur upstream of the known fish use until the first natural barrier to fish use is encountered.

(c) Where fish use is unknown, an operator may request that the department conduct a field survey for fish use for reaches of a stream that will be included within an operation that is scheduled to start at least 12 months following the request. The operator shall limit such requests to operations that are part of a landowner's planned harvest schedule and will be conducted during the following year. The department, with assistance from the Oregon Department of Fish and Wildlife when needed, shall attempt to complete such surveys within 12 months following the request. If the survey cannot be conducted in the time indicated, the stream will be considered to have no fish use. However, if the operation has not commenced within six months of the time the operation was scheduled to begin, the stream will again be considered to have unknown fish use.

(d) The department may use other reliable fish survey information when determining whether or not a stream has fish use. This information could include surveys done by landowners, federal or state agencies, universities, or other persons or entities. The department will determine whether such information is reliable.

(12) For each of the three beneficial use categories (Type F, Type D, and Type N), streams shall be categorized further according to three size categories: large, medium, and small. The size categories are based on average annual flow.

(a) Small streams have an average annual flow of two cubic feet per second or less.

(b) Medium streams have an average annual flow greater than two and less than ten cubic feet per second.

(c) Large streams have an average annual flow of ten cubic feet per second or greater.

(13) The assignment of size categories to streams on forestland will be done by the department as follows:

(a) The department will index average annual flow to the upstream drainage area and average annual precipitation. The methodology is described in Technical Note FP1 dated April 21, 1994.

(b) Actual measurements of average annual flow may substitute for the calculated flows described in the technical note.

(c) Any stream with a drainage area less than 200 acres shall be assigned to the small stream category regardless of the flow index calculated in subsection (13)(a).

(14) Wetlands shall be classified further as indicated below:

(a) The following types of wetlands are classified as "significant wetlands":

(A) Wetlands that are larger than eight acres;

(B) Estuaries;

(C) Bogs; and

(D) Important springs in eastern Oregon.

(b) Stream-associated wetlands that are less than eight acres are classified according to the stream with which they are connected.

(c) All other wetlands, including seeps and springs are classified according to their size as either "other wetlands greater than one-quarter acre" or "other wetlands less than one-quarter acre."

(15) Lakes shall be classified further as indicated below:

(a) Lakes greater than eight acres are classified as "large lakes."

(b) All other lakes are classified as "other lakes."

RIPARIAN MANAGEMENT AREAS AND WATER QUALITY PROTECTION MEASURES

629-57-2150

(1) Riparian management area widths are designated to provide adequate areas along streams, lakes, and significant wetlands to retain the physical components and maintain the functions necessary to accomplish the purposes and to meet the protection objectives and goals for water quality, fish, and wildlife set forth in OAR 629-57-2000.

(2) Specified protection measures, such as for site preparation, yarding and stream channel changes, are required for operations near waters of the state and within riparian management areas to maintain water quality.

(3) (a) Operators shall apply the specified water quality protection measures and protect riparian management areas along each side of streams and around other waters of the state as described in OAR 629-57-2200 through 629-57-2670.

(b) Operators may vary the width of the riparian management area above or below the average specified width depending upon topography, operational requirements, vegetation, fish and wildlife resources and water quality protection as long as vegetation retention and protection standards are met. However, the average width of the entire riparian management area within an operation must equal or exceed the required width.

RIPARIAN MANAGEMENT AREA WIDTHS FOR STREAMS

629-57-2200

(1) (a) The riparian management area widths for streams are designated for each stream type as shown in Table 1.

(b) Except as indicated in section (2), operators shall measure the riparian management area width as a slope distance from the high water level of main channels.

(c) Notwithstanding the distances designated in subsection (1)(a), where wetlands or side channels extend beyond the designated riparian management area widths, operators shall expand the riparian management area as necessary to entirely include any stream-associated wetland or side channel plus at least 25 additional feet. This provision does not apply to small Type N streams.

(2) In situations where the slope immediately adjacent to the stream channel is steep exposed soil, a rock bluff or talus slope, operators shall measure the riparian management area as a horizontal distance until the top of the exposed bank, bluff or talus slope is reached. From that point, the remaining portion of the riparian management area shall be measured as a slope distance.

VEGETATION RETENTION GOALS FOR STREAMS; DESIRED FUTURE CONDITIONS

629-57-2220

(1) The purpose of this rule is to describe how the vegetation retention measures for streams were determined, their purpose and how the measures are implemented. The vegetation retention requirements for streams described in OAR 629-57-2230 through OAR 629-57-2270 are designed to produce desired future conditions for the wide range

of stand types, channel conditions, and disturbance regimes that exist throughout forestlands in Oregon.

(2) The desired future condition for streamside areas along fish use streams is to grow and retain vegetation so that, over time, average conditions across the landscape become similar to those of mature streamside stands. Oregon has a tremendous diversity of forest tree species growing along waters of the state and the age of mature streamside stands varies by species. Mature streamside stands are often dominated by conifer trees. For many conifer stands, mature stands occur between 80 and 200 years of stand age. Hardwood stands and some conifer stands may become mature at an earlier age. Mature stands provide ample shade over the channel, an abundance of large woody debris in the channel, channel-influencing root masses along the edge of the high water level, snags, and regular inputs of nutrients through litter fall.

(3) The rule standards for desired future conditions for fish use streams were developed by estimating the conifer basal area for average unmanaged mature streamside stands (at age 120) for each geographic region. This was done by using normal conifer yield tables for the average upland stand in the geographic region, and then adjusting the basal area for the effects of riparian influences on stocking, growth and mortality or by using available streamside stand data for mature stands.

(4) The desired future condition for streamside areas that do not have fish use is to have sufficient streamside vegetation to support the functions and processes that are important to downstream fish use waters and domestic water use and to supplement wildlife habitat across the landscape. Such functions and processes include: maintenance of cool water temperature and other water quality parameters; influences on sediment production and bank stability; additions of nutrients and large conifer organic debris; and provision of snags, cover, and trees for wildlife.

(5) The rule standards for desired future conditions for streams that do not have fish use were developed in a manner similar to fish use streams. In calculating the rule standards, other factors used in developing the desired future condition for large streams without fish use and all medium and small streams included the effects of trees regenerated in the riparian management area during the next rotation and desired levels of instream large woody debris.

(6) For streamside areas where the native tree community would be conifer dominated stands, mature streamside conditions are achieved by retaining a sufficient amount of conifers next to large and medium sized fish use streams at the time of harvest, so that halfway through the next rotation or period between harvest entries, the conifer basal area and density is similar to mature unmanaged conifer stands. In calculating the rule standards, a rotation age of 50 years was assumed for even-aged management and a period between entries of 25 years was assumed for uneven-aged management. The long-term maintenance of streamside conifer stands is likely to require incentives to landowners to manage streamside areas so that conifer reforestation occurs to replace older conifers over time.

(7) Conifer basal area and density targets to produce mature stand conditions over time are outlined in the general vegetation retention prescriptions. In order to ensure compliance with state water quality standards, these rules include requirements to retain all trees within 20 feet and understory vegetation within 10 feet of the high water level of specified channels to provide shade.

(8) For streamside areas where the native tree community would be hardwood dominated stands, mature streamside conditions are achieved by retaining sufficient hardwood trees. As early successional species, the long-term maintenance of hardwood streamside stands will in some cases require managed harvest using site specific vegetation retention prescriptions so that reforestation occurs to replace older trees. In order to ensure compliance with state water quality standards, these rules include requirements in the general vegetation retention prescription to retain all trees within 20 feet and understory vegetation within 10 feet of the high water level of specified channels to provide shade.

(9) In many cases the desired future condition for streams can be achieved by applying the general vegetation

retention prescriptions, as described in OAR 629-57-2230 and OAR 629-57-2250. In other cases, the existing streamside vegetation may be incapable of developing into the future desired conditions in a "timely manner." In this case, the operator can apply an alternative vegetation retention prescription described in OAR 629-57-2260 or develop a site specific vegetation retention prescription described in OAR 629-57-2270. For the purposes of the water protection rules, "in a timely manner" means that the trees within the riparian management area will meet or exceed the applicable basal area target or vegetation retention goal during the period of the next harvest entry that would be normal for the site. This will be 50 years for many sites.

(10) Where the native tree community would be conifer dominant stands, but due to historical events the stand has become dominated by hardwoods, in particular, red alder, disturbance is allowed to produce conditions suitable for the re-establishment of conifer. In this and other situations where the existing streamside vegetation is incapable of developing characteristics of a mature streamside stand in a "timely manner," the desired action is to manipulate the streamside area and woody debris levels at the time of harvest (through an alternative vegetation retention prescription or site specific vegetation retention prescription) to attain such characteristics more quickly.

(Fish)

GENERAL VEGETATION RETENTION PRESCRIPTION FOR TYPE F STREAMS

629-57-2230

- (1)
 - (a) Operators shall apply the vegetation retention requirements described in this rule to the riparian management areas of Type F streams.
 - (b) Segments of Type F streams that are different sizes within an operation shall not be combined or averaged together when applying the vegetation retention requirements.
 - (c) Trees left to meet the vegetation retention requirements for one stream type shall not count towards the requirements of another stream type.
- (2) Operators shall retain:
 - (a) All understory vegetation within 10 feet of the high water level;
 - (b) All trees within 20 feet of the high water level; and
 - (c) All trees leaning over the channel.
- (3) Operators shall retain within riparian management areas and streams all downed wood and snags that are not safety or fire hazards. Snags felled for safety or fire hazard reasons shall be retained where they are felled unless used for stream improvement projects approved by the State Forester.
- (4) Notwithstanding the requirements of section (2) of this rule, vegetation, snags and trees within 20 feet of the high water level of the stream may be felled, moved or harvested as allowed in other rules for road construction, yarding corridors, temporary stream crossings, or for stream improvement.
- (5) Operators shall retain at least 40 live conifer trees per 1000 feet along large streams and 30 live conifer trees per 1000 feet along medium streams. This includes trees left to meet the requirements described in section (2) of this rule. Conifers must be at least 11 inches DBH for large streams and 8 inches DBH for medium streams to count toward these requirements.
- (6) Operators shall retain trees or snags six inches or greater DBH to meet the following requirements (this includes

trees left to meet the requirements of sections (2) and (5) of this rule):

(a) If live conifer tree basal area in the riparian management area is greater than the standard target shown in Table 2 where the harvest unit will be a clearcut (as defined by ORS 527.620(2)), or Table 3 where the harvest unit will be a partial harvest or thinning, operators shall retain live conifer trees of sufficient basal area to meet the standard target.

(b) If live conifer tree basal area in the riparian management area is less than the standard target (as shown in Table 2 where the harvest unit will be a clearcut, or Table 3 where the harvest unit will be a partial harvest or thinning) but greater than one-half the standard target shown in Table 2, operators shall retain all live conifer trees six inches DBH or larger in the riparian management area (up to a maximum of 150 conifers per 1000 feet along large streams, 100 conifers per 1000 feet along medium streams, and 70 conifers per 1000 feet along small streams).

(c) If live conifer tree basal area in the riparian management area is less than one-half the standard target shown in Table 2:

(A) Operators may apply an alternative vegetation retention prescription as described in OAR 629-57-2260, where applicable, or develop a site specific vegetation retention prescription as described in OAR 629-57-2270; or

(B) Operators shall retain all conifers in the riparian management area and all hardwoods within 50 feet of the high water level for large streams, within 30 feet of the high water level for medium streams, and within 20 feet of the high water level for small streams.

(7) In the Coast Range, South Coast, Interior, Western Cascade, and Siskiyou geographic regions, hardwood trees and snags six inches or greater DBH may count toward the basal area requirements in subsection (6)(a) of this rule as follows:

(a) All cottonwood and Oregon ash trees within riparian management areas that are beyond 20 feet of the high water level of large Type F streams, may count toward the basal area requirements.

(b) Up to 10 percent of the basal area requirement may be comprised of sound conifer snags at least 30 feet tall and other large live hardwood trees, except red alder, growing in the riparian management area more than 20 feet from the high water level and at least 24 inches DBH.

(8) In the Eastern Cascade and Blue Mountain geographic regions, hardwood trees, dying or recently dead or dying trees and snags six inches or greater DBH may count toward the basal area requirements in subsection (6)(a) of this rule as follows:

(a) The basal area of retained live hardwood trees may count toward meeting the basal area requirements.

(b) Up to 10 percent of the basal area retained to meet the basal area requirement may be comprised of sound conifer snags at least 30 feet tall.

(c) For small Type F streams, the maximum required live conifer tree basal area that must be retained to meet the standard target is 40 square feet. The remaining basal area required may come from retained snags, dying or recently dead or dying trees, or hardwoods if available within the riparian management area.

(9) Notwithstanding the requirements indicated in this rule, operators may conduct precommercial thinning and other release activities to maintain the growth and survival of conifer reforestation within riparian management

areas. Such activities shall contribute to and be consistent with enhancing the stand's ability to meet the desired future condition.

(10) When determining the basal area of trees, the operator may use the average basal area for a tree's diameter class, as shown in Table 4, or determine an actual basal area for each tree. The method for determining basal area must be consistent throughout the riparian management area.

(11) (a) For large and medium Type F streams, live conifer trees retained in excess of the active management target and hardwoods retained beyond 20 feet of the high water level of the stream that otherwise meet the requirements for leave trees may be counted toward requirements for leave trees within clearcuts (pursuant to Section 5, Chapter 919, Oregon Laws 1991).

(b) For small Type F streams, all retained live trees that otherwise meet the requirements for leave trees may count toward requirements for leave trees within clearcuts.

(12) Trees on islands with ground higher than the high water level may be harvested as follows:

(a) If the harvest unit is solely on an island, operators shall apply all the vegetation retention requirements for a large Type F stream described in this rule to a riparian management area along the high water level of the channels forming the island.

(b) Otherwise, operators shall retain all trees on islands within 20 feet of the high water level of the channels forming the island and all trees leaning over the channels. In this case, conifer trees retained on islands may count toward the basal area requirement for adjacent riparian management areas so long as the trees are at least 11 inches DBH for large streams and eight inches DBH for medium streams.

(13) When applying the vegetation retention requirements described in this rule to the riparian management areas, if an operator cannot achieve the required retention without leaving live trees on the upland side of a road that may be within the riparian management area and those trees pose a safety hazard to the road and will provide limited functional benefit to the stream, the State Forester may modify the retention requirements on a site specific basis.

LIVE TREE RETENTION CREDIT FOR IMPROVEMENT OF TYPE F STREAMS

629-57-2240

- (1) Many Type F streams currently need improvement of fish habitat because they lack adequate amounts of large woody debris in channels, or they lack other important habitat elements.
- (2) This rule allows operator incentives to place conifer logs in channels or to take other enhancement actions to create immediate improvements in fish habitat.
- (3) Subject to prior approval of the State Forester, operators may place conifer logs or downed trees in Type F streams and receive basal area credit toward meeting the live tree retention requirements in a stream's riparian management area.
- (4) For each conifer log or tree the operator places in a large or medium Type F stream, the basal area credit is twice the basal area of the placed log or tree.
- (5) For each conifer log or tree the operator places in a small Type F stream, the basal area credit is equal to the basal area of the placed log or tree.

- (6) Basal area credit will be determined by measuring the cross-sectional area of the large end of a log or by measuring the point on a downed tree that would be equivalent to breast height.
- (7) To receive basal area credit for downed trees or conifer logs placed in a stream, the operator shall comply with the guidance and restrictions for placing logs or trees prescribed by the State Forester.
- (8) Operators may propose other stream enhancement projects for basal area credit such as creation of backwater alcoves, riparian grazing exclosures (such as fencing), and placement of other instream structure such as boulders and rootwads. When a project is approved by the department through consultation with the Oregon Department of Fish and Wildlife, basal area credit shall be given toward meeting the live tree requirements within riparian management areas. The basal area credit shall be negotiated between the department, operator and Oregon Department of Fish and Wildlife.
- (9) Basal area credit may be given to an operation for enhancement projects conducted at locations other than at the operation site so long as the project is in the same immediate vicinity as the operation site (for instance, within one or two miles of the operation).
- (10) Basal area credit may be given to an operation for improvement projects conducted at a later date (this may be necessary to avoid operating under high water conditions or to protect spawning areas), but the project must be completed within six months of the completion of the operation.
- (11) In granting basal area credit, the standing tree basal area retained within riparian management areas of Type F streams shall not be reduced to less than the active management targets shown in Table 2 or 3, as applicable.
 - (a) For small Type F streams in the Eastern Cascade and Blue Mountain geographic regions, the live conifer tree basal area may be reduced to 30 square feet for the active management target. The remaining portion of the basal area requirement must come from snags, dying or recently dead or dying trees, or hardwood trees if available in the riparian management area.
- (12) Operators shall notify the State Forester of the completion of live tree retention credit stream improvement projects that were planned for locations other than on the operation site under section (10) of this rule or that were planned to be completed at another date under section (11) of this rule.

GENERAL VEGETATION RETENTION PRESCRIPTION FOR TYPE D AND TYPE N STREAMS

629-57-2250

- (1)
 - (a) Operators shall apply the vegetation retention requirements described in this rule to the riparian management areas of Type D and Type N streams.
 - (b) Segments of Type D or Type N streams that may be of a different size within operation shall not be combined or averaged together when applying the vegetation retention requirements.
 - (c) Trees left to meet the vegetation retention requirements for one stream type shall not count toward the requirements of another stream type.
- (2) Operators shall retain along all Type D, and large and medium Type N streams:
 - (a) All understory vegetation within 10 feet of the high water level;
 - (b) All trees within 20 feet of the high water level; and

- (c) All trees leaning over the channel.
- (3) Operators shall retain all downed wood and snags that are not safety or fire hazards within riparian management areas and streams. Snags felled for safety or fire hazard reasons shall be retained where they are felled unless used for stream improvement projects approved by the State Forester.
- (4) Notwithstanding the requirements of section (2), vegetation, snags and trees within 20 feet of the high water level of the stream may be felled, moved or harvested as allowed in the rules for road construction, yarding corridors, temporary stream crossings, or for stream improvement.
- (5) Operators shall retain at least 30 live conifer trees per 1000 feet along large Type D and Type N streams and 10 live conifer trees per 1000 feet along medium Type D and Type N streams. This includes any trees left to meet the requirements described in section (2) of this rule. Conifers must be at least 11 inches DBH for large streams and eight inches DBH for medium streams to count toward these requirements.
- (6) Operators shall retain all understory vegetation and non-merchantable conifer trees (conifer trees less than six inches DBH) within 10 feet of the high water level on each side of small perennial Type N streams indicated in Table 5.
- (a) The determination that a stream is perennial shall be made by the State Forester based on a reasonable expectation that the stream will have summer surface flow after July 15.
- (b) The determination in subsection (6)(a) of this rule can be made based on a site inspection, data from other sources such as landowner information, or by applying judgment based upon stream flow patterns experienced in the general area.
- (c) Operators are encouraged whenever possible to retain understory vegetation, non-merchantable trees, and leave trees required within clearcuts (pursuant to Section 5, Chapter 919, Oregon Laws 1991) along all other small Type N streams within harvest units.
- (7) Operators shall retain trees six inches or greater DBH to meet the following requirements (this includes trees left to meet the requirements of sections (2) and (5) of this rule):
- (a) If the live conifer tree basal area in the riparian management area is greater than the standard target shown in Table 6 where the harvest will be a clearcut (as defined by ORS 527.620(2)), or in Table 7 where the harvest unit is a partial harvest or thinning, operators shall retain along all Type D, and medium and large Type N streams live conifer trees of sufficient basal area to meet the standard target.
- (b) If the live conifer tree basal area in the riparian management area is less than the standard target (as shown in Table 6 where the harvest will be a clearcut or Table 7 where the harvest unit is a partial harvest or thinning), but greater than one-half the standard target shown in Table 6, operators shall retain along all Type D, and medium and large Type N streams all conifers 6 inches DBH or larger in the riparian management area (up to a maximum of 100 conifers per 1000 feet along large streams, and 70 conifers per 1000 feet along medium streams).
- (c) If the live conifer tree basal area in the riparian management area is less than one-half the standard target shown in Table 6:
- (A) Operators may apply an alternative vegetation retention prescription as described in OAR 629-57-2260, where applicable, or develop a site specific vegetation retention prescription as described in OAR 629-57-2270; or

(B) Operators shall retain along all Type D, and medium and large Type N streams all conifers in the riparian management area and all hardwoods within 30 feet of the high water level for large streams and within 20 feet of the high water level for medium streams.

(8) In the Coast Range, South Coast, Interior, Western Cascade, and Siskiyou geographic regions, hardwood trees and snags six inches or greater DBH may count toward the basal area requirements in subsection (7)(a) of this rule as follows:

(a) All cottonwood and Oregon ash trees within riparian management areas that are beyond 20 feet of the high water level of large Type D and N streams, may count toward the basal area requirements.

(b) For large Type D and N streams, up to 10 percent of the basal area requirement may be comprised of sound conifer snags at least 30 feet tall and other large live hardwood trees, except red alder, growing in the riparian management area more than 20 feet from the high water level and at least 24 inches DBH.

(c) For medium Type D and N streams:

(A) Up to 30 square feet of basal area per 1000 feet of stream may be comprised of hardwood trees.

(B) Up to five percent of the basal area retained may be comprised of sound conifer snags that are at least 30 feet tall.

(9) In the eastern Oregon and Blue Mountain geographic regions:

(a) The basal area of all retained live hardwood trees may count toward meeting the basal area requirements.

(b) For large Type D and N streams, up to 10 percent of the basal area requirement may be comprised of sound conifer snags at least 30 feet tall.

(c) For medium Type D and N streams:

(A) Up to 30 square feet of basal area per 1000 feet of stream may be comprised of hardwood trees.

(B) Up to five percent of the basal area retained may be comprised of sound conifer snags that are at least 30 feet tall.

(10) Notwithstanding the requirements indicated in this rule, operators may conduct precommercial thinning and other release activities to maintain the growth and survival of conifer reforestation within riparian management areas. Such activities shall contribute to and be consistent with enhancing the stand's ability to meet the desired future condition.

(11) When determining the basal area of trees along streams in a harvest unit, operators may use the average basal area for a tree's diameter class, as shown in Table 4 in OAR 629-57-2230, or determine an actual basal area for each tree. The method for determining basal area must be consistent throughout the riparian management area.

(12) All live trees retained along Type D and N streams that otherwise meet the requirements for leave trees may count toward requirements for leave trees within clearcuts (pursuant to Section 5, Chapter 919, Oregon Laws 1991).

(13) Trees on islands with ground higher than the high water level may be harvested as follows:

(a) If the harvest unit is solely on an island, operators shall apply all the vegetation retention requirements for a large Type F stream described in this rule to a riparian management area along the high water level of the channels forming the island.

(b) Otherwise, operators shall retain all trees on islands within 20 feet of the high water level of the channels forming the island and all trees leaning over the channels. In this case, conifer trees retained on islands may count toward the basal area requirement for adjacent riparian management areas so long as the trees are at least 11 inches DBH for large streams and 8 inches DBH for medium streams.

(c) All merchantable trees may be harvested from islands within small Type N streams.

(14) When applying the vegetation retention requirements described in this rule to the riparian management areas, if an operator cannot achieve the required retention without leaving live trees on the upland side of a road that may be within the riparian management area and those trees pose a safety hazard to the road and will provide limited functional benefit to the stream, the State Forester may modify the retention requirements on a site specific basis.

ALTERNATIVE VEGETATION RETENTION PRESCRIPTIONS

629-57-2260

(1) Alternative prescriptions are intended to apply to situations where the existing streamside stand is too sparse or contains too few live conifers to maintain fish, wildlife, and water quality resources over time. Future desired streamside stand conditions are achieved through immediate manipulation of vegetation, including reforesting the riparian management area with conifers.

(2) Sections (3) and (4) of this rule are alternative vegetation retention prescriptions that operators may apply if the conifer basal area in the riparian management area is no more than one-half of the standard target indicated in either Table 2 of OAR 629-57-2230 or Table 6 of OAR 629-57-2250, as may be applicable, and conditions described in the alternative prescription are applicable.

(3) Alternative Vegetation Retention Prescription 1 (Catastrophic Events). This alternative prescription applies to streamside stands that have been damaged by wildfire or by catastrophic windthrow, insect or disease mortality. Such mortality must occur at the stand level and shall not include normal endemic mortality. The prescription is intended to provide adequate stream shade, woody debris, and bank stability for the future while creating conditions in the streamside area that will result in quick establishment of a new and healthy stand. Operators shall:

(a) Retain trees that have fallen in the stream. Only portions of these trees that are outside the high water levels and do not contribute to the ability of the downed tree to withstand movement during high flows may be harvested.

(b) Retain all live and dead trees within 20 feet of the high water level of large and medium streams and 10 feet of the high water level of small streams.

(c) For Type F streams, retain live trees, dying or recently dead trees, and downed logs sufficient to satisfy the active management target shown in Table 2.

(d) For Type D and N streams, retain live trees, dying or recently dead trees, or downed logs sufficient to satisfy the standard target shown in Table 6.

(e) Live conifers shall be retained first to meet the target. If live conifers are too few to satisfy the target, then the target shall be met as much as possible by including windthrown trees within the channel and dying

or recently dead trees.

(f) For purposes of this prescription the basal area of a windthrown tree in the channel or a retained dying or recently dead tree contributes two times its basal area toward meeting the target.

(4) Alternative Vegetation Retention Prescription 2 (Hardwood Dominated Sites). This alternative prescription applies to streamside sites that are capable of growing conifers, and where conifer stocking is currently low and unlikely to improve in a "timely manner" because of competition from hardwoods and brush. If portions of such riparian management areas currently contain abundant conifer basal area, it is intended that these areas of good conifer basal area be segregated and managed using the general vegetation retention prescription while the remainder is managed according to this alternative prescription. The alternative prescription is intended to provide adequate stream shade, some woody debris, and bank stability for the future while creating conditions in the streamside area that will result in quick establishment of a conifer stand. The operator shall:

(a) Evaluate the stand within the riparian management area and, where they exist, segregate segments (200 feet or more in length) that are well-stocked with conifer, as identified from an aerial photograph, from the ground or through other appropriate means. The general vegetation retention prescription for vegetation retention shall be applied to these segments.

(b) For the remaining portion of the riparian management area that has lower conifer basal area, the riparian management area shall be divided into conversion blocks and retention blocks.

(c) No more than half of the total stream length in the harvest unit can be included within conversion blocks. Conversion blocks can be no more than 500 feet long and must be separated from each other by at least 200 feet of retention block or by at least a 200 foot segment where the general vegetation retention prescription is applied.

(d) Within conversion blocks the operator shall retain:

(A) All trees growing in the stream or within 10 feet of the high water level of the stream.

(B) All trees leaning over the channel within 20 feet of the high water level of large streams.

(e) Within retention blocks the operator shall retain:

(A) For large streams, all conifer trees within 50 feet of the high water level of the stream and all hardwood trees within 30 feet of the high water level of the stream.

(B) For medium streams, all conifer trees within 30 feet of the high water level of the stream and all hardwood trees within 20 feet of the high water level of the stream.

(C) For small streams, all trees within 20 feet of the high water level of the stream.

SITE SPECIFIC VEGETATION RETENTION PRESCRIPTIONS FOR STREAMS AND RIPARIAN MANAGEMENT AREAS

629-57-2270

(1) (a) Operators are encouraged to develop site specific vegetation retention prescriptions in an alternate plan.

(b) A primary aim of these prescriptions is to identify opportunities and allow incentives for restoring or

enhancing riparian management areas or streams.

(c) Another purpose of site specific vegetation retention prescriptions is to allow for changes to the vegetation retention requirements in OARs 629-57-2230 and 629-57-2250. The changes must provide for the functions and values of stream and their riparian management areas as described in the vegetation retention goals for streams while affording a better opportunity to meet other objectives.

(2) Operators may develop site specific vegetation retention prescriptions for streams and their riparian management areas to achieve the vegetation retention goals described in OAR 629-57-2220 if:

(a) The potential of the streamside stand to achieve basal area and stand density similar to mature conifer forest stands in a "timely manner" is questionable; or

(b) In-stream conditions are impaired due to inadequate large woody debris or other factors; or

(c) The modification of a standard or practice would result in less environmental damage than if the standard or practice were applied.

(3) A site specific vegetation retention prescription shall be approved if the State Forester determines that when properly executed the alternate plan will have no significant or permanent adverse effects: and

(a) It will meet or exceed the vegetation retention goals in a more "timely manner" than if the plan were not implemented; or

(b) The long-term benefits of the proposed restoration practice are greater than short-term detrimental effects; or

(c) The proposed practice will result in less environmental damage than if the regular rules were followed.

(4) Factors that may need to be considered in the plan include, but are not limited to, the potential of the existing streamside stand to achieve mature conifer forest characteristics, the long-term supply of woody debris, survival of planted conifers, sensitivity to changes in water temperature and water quality, the potential for sedimentation, the stability of woody debris placed in aquatic areas, and monitoring the direct effects of the proposed practices.

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To: <i>L. Jane Hart</i>	From: <i>Nada Austin</i>	
Co.:	Co. <i>ODF</i>	
Dept.:	Phone # <i>945-7420</i>	
Fax #	Fax #	

Table 1. Riparian Management Area Widths for Streams of Various Sizes and Beneficial Uses

	Type F	Type D	Type N
LARGE	100 feet	70 feet	70 feet
MEDIUM	70 feet	50 feet	50 feet
SMALL	50 feet	20 feet	Apply specified water quality protection measures, and see OAR 629-57-2250.

TABLE 2. General Prescription for Type F streams: Streamside Tree Retention for Clearcut Harvest Units

Geographic region	SQUARE FEET OF BASAL AREA PER 1000 FEET OF STREAM, EACH SIDE					
	LARGE Type F		MEDIUM Type F		SMALL Type F	
	RMA = 100 feet		RMA = 70 feet		RMA = 50 feet	
	Standard Target	Active Management Target	Standard Target	Active Management Target	Standard Target	Active Management Target
Coast Range and South Coast	230	170	120	90	40	20
Interior and Western Cascade	270	200	140	110	40	20
Siskiyou	220	170	110	90	40	20
Eastern Cascade and Blue Mountain	170	130	90	70	50 ¹	50 ²

¹ The maximum live conifer tree basal area that must be retained is 40 square feet. The remaining basal area may come from snags, dying or recently dead or dying trees, or hardwood trees if available within the riparian management area.

² Live conifer tree basal area may be reduced to 30 square feet for the active management target. The remaining portion of the basal area requirement must come from snags, dying or recently dead or dying trees, or hardwood trees if available within the riparian management area.

TABLE 3. General Prescription for Type F Streams: Streamside Tree Retention for Partial Harvest or Thinning Units.

Geographic region	SQUARE FEET OF BASAL AREA PER 1000 FEET OF STREAM, EACH SIDE					
	LARGE Type F		MEDIUM Type F		SMALL Type F	
	RMA = 100 feet		RMA = 70 feet		RMA = 50 feet	
	Standard Target	Active Management Target	Standard Target	Active Management Target	Standard Target	Active Management Target
Coast Range and South Coast	300	270	160	140	50	30
Interior and Western Cascade	350	310	180	160	50	30
Siskiyou	290	260	140	120	50	30
Eastern Cascade and Blue Mountain	220	200	120	100	50 ¹	50 ²

TABLE 4. Basal Area for Various Diameter Classes

Diameter Breast Height (inches)	Basal Area (square feet)	Diameter Breast Height (inches)	Basal Area (square feet)
6 to 10	0.3	41 to 45	10.1
11 to 15	0.9	46 to 50	12.6
16 to 20	1.8	51 to 55	15.3
21 to 25	2.9	56 to 60	18.3
26 to 30	4.3	61 to 65	21.6
31 to 35	5.9	66 to 70	25.2
36 to 40	7.9	71 to 75	29.0

¹ The maximum live conifer tree basal area that must be retained is 40 square feet. The remaining basal area may come from snags, dying or recently dead or dying trees, or hardwood trees if available within the riparian management area.

² Live conifer tree basal area may be reduced to 30 square feet for the active management target. The remaining portion of the basal area requirement must come from snags, dying or recently dead or dying trees, or hardwood trees if available within the riparian management area.

TABLE 5. Vegetation Retention for Specified Small Type N Streams.

Geographic Region	Retain Understory Vegetation and Unmerchantable Conifers 10 Feet Each Side of Stream for:
Eastern Cascades and Blue Mountains	All perennial streams.
South Coast	Portions of perennial streams where the upstream drainage area is greater than 160 acres.
Interior	Portions of perennial streams where the upstream drainage area is greater than 330 acres.
Siskiyou	Portions of perennial streams where the upstream drainage area is greater than 580 acres.
Coast Range and Western Cascades	<u>No retention required.</u>

TABLE 6. General Prescription for Type D, and Large and Medium Type N Streams: Streamside Tree Retention for Clearcut Harvest Units.

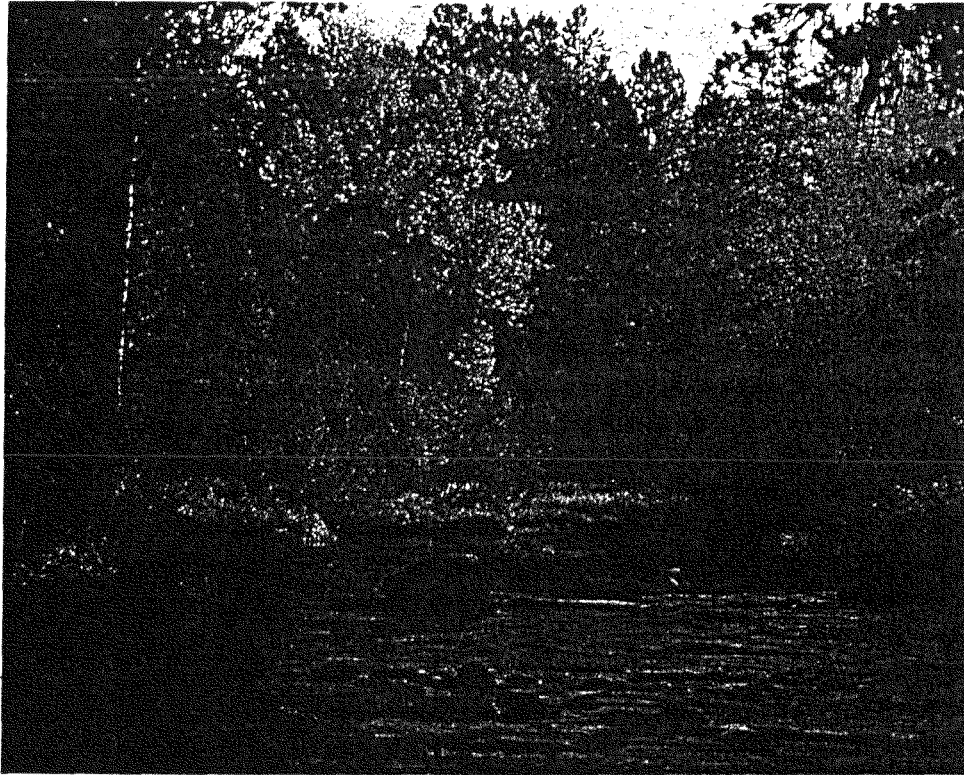
Geographic Region	SQUARE FEET OF BASAL AREA PER 1000 FEET OF STREAM, EACH SIDE		
	LARGE TYPE D AND N RMA = 70 feet	MEDIUM TYPE D AND N RMA = 50 feet	SMALL TYPE D RMA = 20 feet
	Standard Target	Standard Target	Standard Target
Coast Range and South Coast	90	50 ¹	0
Interior and Western Cascade	110	50 ¹	0
Siskiyou	90	50 ¹	0
Eastern Cascade and Blue Mountain	70	50 ¹	0

¹ Hardwoods may count up to 30 square feet per 1000 feet towards meeting the standard target.

TABLE 7. General Prescription for Type D, and Large and Medium Type N Streams: Streamside Tree Retention for Partial Harvest and Thinning Units.

Geographic Region	SQUARE FEET OF BASAL AREA PER 1000 FEET OF STREAM, EACH SIDE		
	LARGE TYPE D AND N RMA = 70 feet	MEDIUM TYPE D AND N RMA = 50 feet	SMALL TYPE D RMA = 20 feet
	Standard Target	Standard Target	Standard Target
Coast Range and South Coast	140	60 ¹	0
Interior and Western Cascade	160	60 ¹	0
Siskiyou	120	60 ¹	0
Eastern Cascade and Blue Mountain	100	60 ¹	0

¹ Hardwoods may count up to 30 square feet of basal area per 1000 feet toward meeting the standard target.



1994

Columbia River Basin

Fish and Wildlife Program

Overview

Northwest
Power Planning
Council

94-1

EXCERPTS

Over the past hundred years or so, this ecosystem has been harnessed to serve development. From the perspective of many in the Northwest, there have been great benefits. The region prospered. But that prosperity cost the ecosystem dearly.

We are most familiar with the loss of salmon, our most potent symbol of endurance and vigor. Ironically, these fish are now among the region's most vulnerable species. A century ago, between 10 million and 16 million salmon and steelhead returned to the Columbia each year. Today, there are only about 2.5 million salmon, and most of those come from hatcheries.

We have lost not only numbers of fish, but whole runs and more than a third of their original habitat. Additional runs could disappear entirely, too. As recently as 1962, nearly 30,000 adult fall chinook salmon migrated past Ice Harbor Dam on the Snake River on their way to spawn. In 1993, the Snake River fall chinook count was just over 1,000 fish.

Our goal is a healthy basin that supports both humans and fish and wildlife.

Other fish and wildlife species also suffered. Thousands of acres of prime wildlife habitat were flooded behind hydroelectric dams. Some fish — most notably sturgeon, which used to migrate up and down the Columbia and into the ocean — became landlocked.

Many species adapted to the developed Columbia River Basin. Others did not. Several species became extinct. Others have been listed on federal and state endangered species lists.

This Columbia River Basin Fish and Wildlife Program is designed to balance the needs of both the developed and the natural worlds within the watershed. It includes actions to protect and enhance salmon runs, as well as other fish and wildlife. Our goal is a healthy basin that supports both humans and fish and wildlife. We hope to make future Endangered Species Act listings of Columbia River Basin fish and wildlife unnecessary.

The Pacific Northwest Through Time Evolution of a River Basin

13,000–10,800 B.C.
More than 40 floods scour much of the present day Pacific Northwest.



A Strategy for Salmon

Salmon: The price of prosperity

The price for the region's prosperity is being paid by people, businesses and river communities that once thrived on salmon. It is a price realized in lost jobs, business failures and lost community income from business investments and tourism.

It is a price that hits Columbia Basin Indian tribes particularly hard. Salmon are important to the tribes for religious, cultural, economic and subsistence purposes. Some tribes are guaranteed the right to fish for Columbia salmon by treaties with the United States dating to 1855.

We can rebuild salmon populations in the Columbia Basin if we act quickly, carefully and

cooperatively. And we can accomplish this goal without eliminating other uses of the river, or jeopardizing our efficient and economical supply of electricity.

What follows is a comprehensive strategy that calls on everyone in the Northwest to help us double the size of salmon runs in ways that ensure

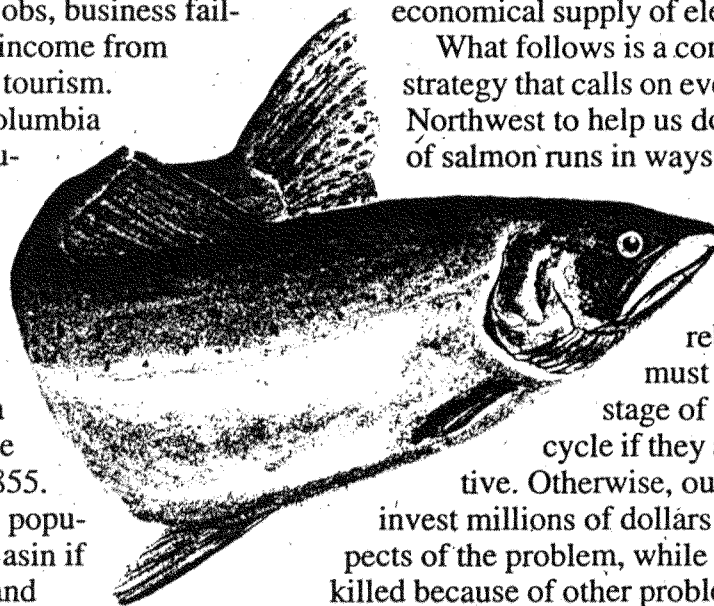
continued returns for many generations. Salmon

rebuilding efforts must address every

stage of the salmon life cycle if they are to be effective. Otherwise, our region could

invest millions of dollars on a few aspects of the problem, while salmon are still

killed because of other problems.



1840s

First farm irrigation systems installed adjacent to missions near Walla Walla, Washington, and Lewiston, Idaho.



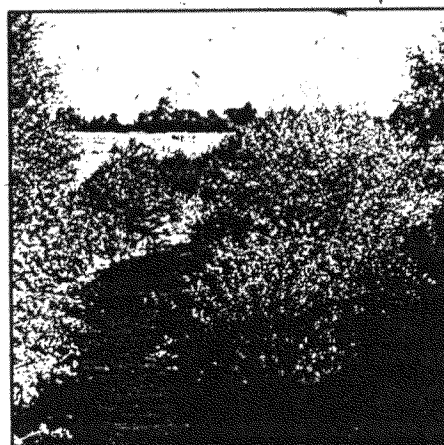
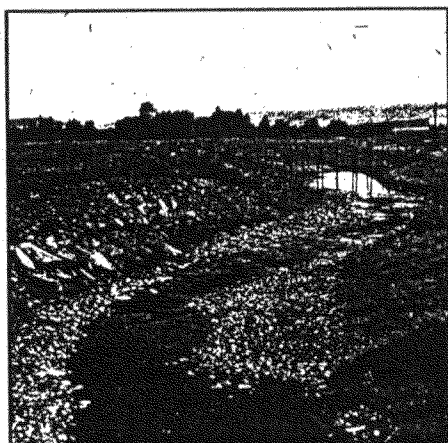
Improve salmon habitat

Salmon habitat includes the streams where spawners lay their eggs, where eggs hatch and where young fish spend the first year or two of their lives. It includes the rivers, the tributaries, the Columbia estuary and the Pacific Ocean.

The quality of habitat determines how many fish survive. Ideally, good spawning habitat has clean, cool water. Streambanks are well-shaded by vegetation. Spawning gravel is abundant and clean. Rocks and woody debris in the water create pools for resting and feeding.

H A B I T A T

B e f o r e a n d A f t e r

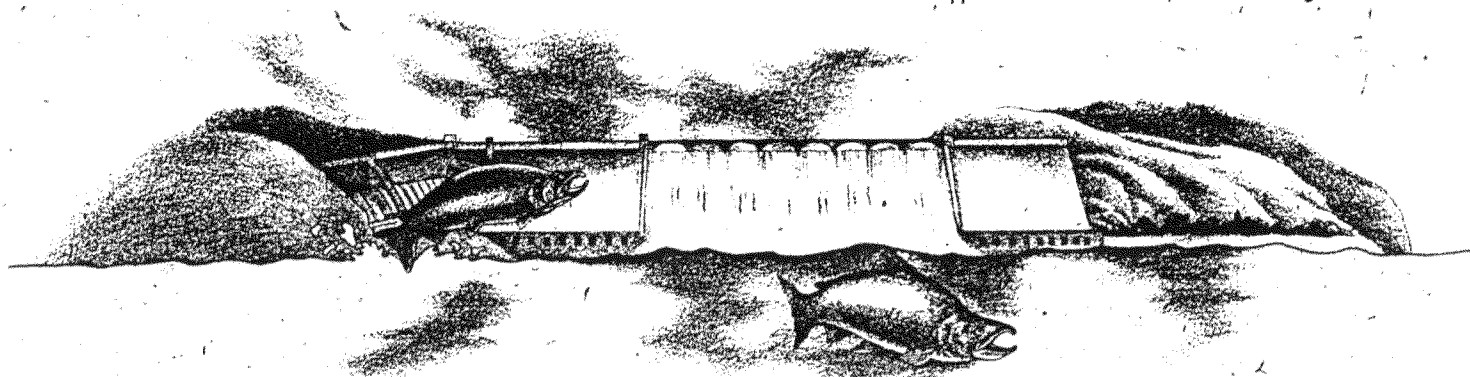


Salmon need cool, clean water in the shallow streams where they reproduce. Where shorelines have been stripped of grasses, shrubs and trees that shade the water, the stream heats up. Erosion is more likely, and erosion can silt up the gravel in the stream, making it less suitable for the salmon to build nests and lay eggs.

Planting the shorelines with quick-growing grasses and shrubs, and keeping livestock away from the plants restores the stream to a healthier environment for the salmon.

1941

Grand Coulee Dam begins operation, closing off entire upper Columbia River Basin to salmon migration.



As human populations increased, so did impacts on salmon habitat. For example, the construction of Grand Coulee and Hells Canyon dams, which have no fish ladders, eliminated about one-third of the available salmon habitat in the basin. Other activities degraded the quality of remaining habitat.

Our highest priority for salmon habitat is to maintain its quantity and productivity. We are especially concerned about preserving or restoring streams where salmon and steelhead can spawn naturally.

One objective of our strategy is to ensure that activities to improve salmon production are coordinated for each watershed. This is not just a planning process. It should be how salmon enhancement is carried out, with all parties' interests — especially the salmon's — considered and integrated into an overall approach.

Land and water managers need to focus their attention on protecting streamside areas.

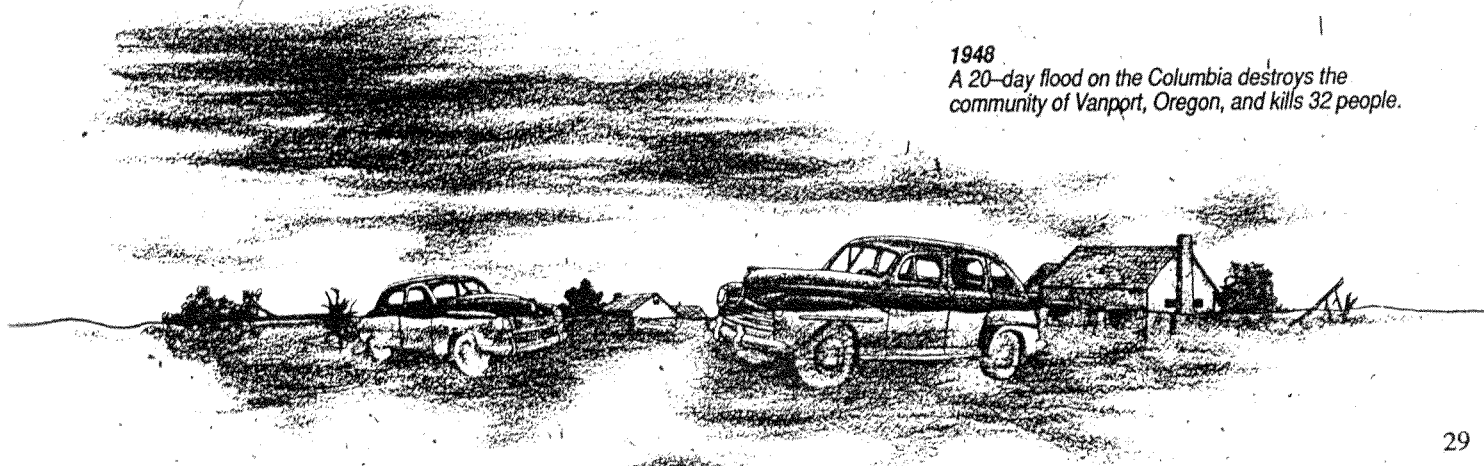
Because about 40 percent of the remaining salmon and steelhead habitat in the Columbia Basin is bordered by private land, it is essential that public and private landowners cooperate in comprehensive efforts to manage salmon habitat.

We are encouraged by cooperative habitat improvements being undertaken in partnerships between private individuals and governments around the basin. These projects not only improve conditions for salmon, but many of them improve

agricultural practices and provide educational opportunities, too. Controlling erosion, for example, can make farmland more productive and also improve conditions for salmon by reducing the amount of silt that flows into rivers. We also call on federal and state land and water managers to improve salmon habitat by revising timber, mining and livestock management practices. Land and water managers need to focus their attention on protecting streamside areas.

1948

A 20-day flood on the Columbia destroys the community of Vanport, Oregon, and kills 32 people.



Wildlife Projects in the Columbia River Basin

Dams in the Columbia River Basin affected birds and other animals, as well as fish. Our program includes measures to mitigate these losses. We want estimates of fish and wildlife losses that are attributable to the hydropower system, including habitat losses. We will then call for replacement of this habitat and, where necessary, improvement of it for use by birds and animals.

In Idaho, Oregon and Washington, mitigation has involved individual projects approved by the Council. Montana has a trust fund, established in 1989 and financed by Bonneville, to pay for wildlife mitigation projects developed by the state.

Here is a look at projects approved by the Council so far to aid wildlife:

Idaho

South Fork Snake River: Protect and enhance 64 miles of the Snake River in eastern Idaho for bald eagles. Mitigation for Palisades Dam.

Camas Prairie: 6,100 acres near Anderson Ranch Reservoir in southern Idaho, including wetlands and uplands for waterfowl. Mitigation for Anderson Ranch Dam.

Pack River: 3,100 acres of wetlands along the northern shore of Lake Pend Oreille in northern Idaho for waterfowl. Mitigation for Albeni Falls Dam.

Craig Mountain: 60,000 acres near the confluence of the Salmon and Snake rivers on Craig Mountain for a variety of wildlife. Mitigation for Dworshak Dam.

Washington

Pend Oreille wetlands: 440 acres along the Washington shore of the Pend Oreille River for waterfowl, bald eagles, deer, muskrat and small birds. Mitigation for Albeni Falls Dam.

Blue Creek Winter Range: 5,400 acres on the Spokane Indian Reservation for big game and upland birds. Mitigation for Grand Coulee Dam.

Peregrine falcon project: Involves releasing three to five falcons per year in the Grand Coulee Dam National Recreation Area between 1993 and 1998. Mitigation for Grand Coulee Dam.

Pygmy rabbit/sharp-tailed grouse: 18,000 acres near the Columbia River in eastern Washington to benefit sharp-tailed grouse and pygmy rabbits. Mitigation for Grand Coulee Dam.

Vancouver Lake lowlands: 814 acres north of Vancouver Lake, along the Columbia River in southwest Washington, for waterfowl, shorebirds, wintering wildlife and migratory wildlife. Mitigation for Bonneville Dam.

Yakima Valley wetlands: 4,870 acres on the Yakama Indian Reservation to benefit waterfowl. Mitigation for four dams on the lower Yakima River.

Oregon

Burlington Bottoms: 428 acres along the Willamette River north of Portland to benefit wintering waterfowl and Columbian white-tailed deer. Mitigation for Willamette River Basin dams.

Amazon Basin/Willow Creek: 331 acres of wetlands in Eugene, Oregon, to benefit a variety of wildlife. Mitigation for Willamette River Basin dams.

Conforth Ranch: 2,700 acres along the south shore of the Columbia River near Hermiston, Oregon, to benefit waterfowl and other wildlife. Mitigation for McNary Dam.

Western Pond Turtle: This project involves research on western pond turtles in the Willamette River Basin and, eventually, development of a mitigation plan. Mitigation for Willamette River Basin dams.

Silt major culprit in lowering nation's water quality

EPA finds cause but another report blames herbicide spray

By DAVID ROTHBARD and CRAIG RUCKER

Having seen the effectiveness of Bill Clinton's campaign focus on the economy, supporters of clean rivers might adopt a similar slogan: "It's the silt, silly."

If our country is truly serious about improving water quality substantially, the focus needs to be on the real problem, silt, rather than the imagined and perceived problems that get so much attention in public forums.

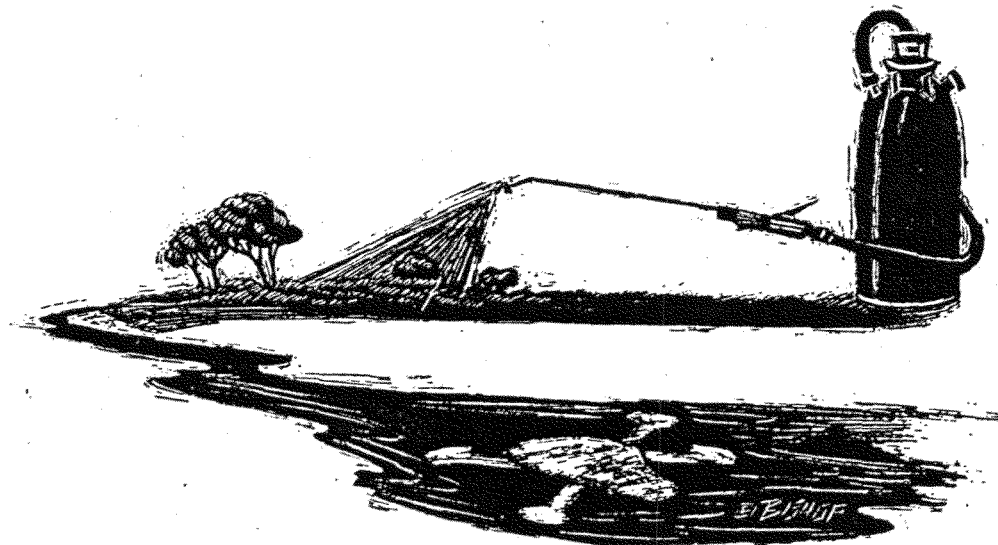
It's plain old dirt — topsoil from farm fields, clay from urban construction sites and sediment from unprotected streambanks — that is clogging our nation's waterways.

In a statement issued this spring, Carol Browner, administrator of the Environmental Protection Agency, called silt "the No. 1 problem threatening America's waterways."

Because of sedimentation, "fish respiration is impaired, plant productivity and water depth are reduced, aquatic organisms and their habitats are smothered, and our aesthetic enjoyment of the water is reduced," according to EPA's report, "The Quality of Our Nation's Water: 1992," which was issued this March.

Incongruously, another federal agency has been creating a controversy that has the potential to make this problem worse. Misperception resulting from work by the U.S. Geological Survey might actually change agri-

David Rothbard is president of the Committee For A Constructive Tomorrow, a Washington-based public-interest organization. Craig Rucker is the group's executive director.



RANDY MACK BISHOP/Pen Tip International Features

cultural practices to the point that soil erosion and stream sedimentation could increase.

The Geological Survey has been monitoring herbicide concentrations in lakes, rivers and streams for the last three years. It has also been releasing information to the media about trace amounts of herbicides in spring and summer, when farmers use the products.

However it has never issued a press release reporting on a full year of monitoring, even though federal drinking-water standards are based on the average of samples taken during a full year. Temporary peaks

slightly higher than the allowable annual average are of little, if any, significance.

Last August, in a little-known technical report, the Geological Survey revealed the full picture of its monitoring: "During 1991 and 1992, the annual average concentrations for these herbicides were far below health-based standards."

The same report carried a prediction about herbicide concentrations in the waters of the great 1993 flood: "Concentrations for these herbicides probably will not exceed [health-based standards] in 1993."

Many Americans will remember the scene a month earlier when TV reporters and newspaper headlines across the nation told of "surprisingly high" herbicide concentrations in the floodwaters. These reports were based on the Geological Survey's findings of one-day concentrations that were only slightly higher than the allowable annual average. These concentrations were nowhere close to any level of concern, as the Geological Survey acknowledged a month later.

But the perception is long-lasting. Now, when EPA reports that agriculture is the leading contributor to stream impairment, many jump to the conclusion that EPA is talking about herbicides.

"It's the silt, silly."

The most common water pollutants, according to EPA's report, are, in order: Silt, nutrients, metals and biological pathogens. Herbicides, even when detections of insignificant concentrations are considered, don't rate with that group.

In fact, herbicides are an essential tool in reducing the amount of silt that gets into streams. While farming remains the leading contributor to river impairment — more stream miles border farms than cities — farmers have made great strides in reducing siltation in recent years.

They have been converting millions of acres to conservation tillage — a practice that leaves last year's crop stubble on the field. Instead of plowing the field and exposing the soil to wind and water erosion, farmers plant seeds through the stubble. Herbicides are used as needed to control the untilled weeds. The crop stubble keeps the herbicide, and the silt, in the field and out of the stream.

Without herbicides, the only way to control weeds is to plow them under before planting and follow up with another tillage trip, further contributing to the No. 1 problem threatening U.S. streams — silt.

- (2) By any person on any road, thoroughfare or property, other than a state highway, county road or city street, for the removal of forest products, as defined in ORS 321.005, or the products of such forest products converted to a form other than logs at or near the harvesting site, or for the construction or maintenance of the road, thoroughfare or property, pursuant to a written agreement or permit authorizing the use, construction or maintenance of the road, thoroughfare or property, with or by:

- (a) An agency of the United States;
- (b) The state board of forestry;
- (c) The state forester; or
- (d) A licensee of any agency named in subparagraph (a), (b) or (c) of this paragraph.

- (3) By an agency of the United States or of the State of Oregon or any county, city or port of the State of Oregon on any road, thoroughfare or property, other than a state highway, county road or city street.

- (4) By any person on any county road for the removal of forest products, as defined in ORS 321.005, or the products of such forest products converted to a form other than logs at or near the harvesting site, if:

- (a) The use of the county road is pursuant to a written agreement entered into with, or to a permit issued by, the state board of forestry, the state forester or an agency of the United States, authorizing such person to use such road and requiring such person to pay for or to perform the construction or maintenance of the county road;
- (b) The board, officer or agency that entered into the agreement or granted the permit, by contract with the county court or board of county commissioners, has assumed the responsibility for the construction or maintenance of such county road; and
- (c) Copies of the agreements or permits required by subparagraphs (a) and (b) of this paragraph are filed with the division.

(B) Except for a farmer subject to subsection (C) of this section, the person or agency, as the case may be, who has paid any fee on such motor vehicle fuels imposed or directed to be paid, as provided by this chapter, is entitled to claim a refund of the fee so paid on such fuels or for the proportionate part of the fee paid on fuels used in the operation of such vehicles, when part of the operations are over such road, thoroughfares or property. The proportionate part shall be based upon the number of miles traveled by any such vehicle over such roads, thoroughfares or property as compared to the total number of miles traveled by such vehicle. To be eligible to claim such refund the person or agency, as the case may be, shall first establish and maintain a complete record of the operations, miles traveled, gallons of fuel used and other information, in such form and in such detail as the division may prescribe and require, the source of supply of all fuels purchased or used, and the particular vehicles or equipment in which used. Whenever any such claim is received and approved by the division, it shall cause the refund of fee to be paid to the claimant in like manner as provided for paying of other refund claims.

(C) A farmer who has paid any fee on motor vehicle fuels imposed or directed to be paid, as provided by this chapter, is entitled to claim a refund of the fee paid on such fuels used in farming operations in the operation of any motor vehicle on any road, thoroughfare or property in private ownership. To be eligible to claim such refund a farmer shall maintain in such form and in such detail as the division may prescribe and require, a record, supported by purchase invoices, of all such motor vehicle fuel purchased (including fuel purchased to operate any motor vehicle on the highway) and, for each and every motor vehicle operated on the highway, a record of all fuel used and of all miles traveled on the highway. Whenever any such claim is received and approved by the division, it shall cause the refund of fee to be paid to the claimant in like manner as provided for paying of other refund claims.

(D) As used in subsections (B) and (C) of this section, "farmer" includes any person who manages or conducts a farm for the production of livestock or crops but does not include a person who manages or conducts a farm for the production of

forest products, as defined in ORS 321.005, or the products of such forest products converted to a form other than logs at or near the harvesting site, or of forest trees unless the production of such forest products or forest trees is only incidental to the primary purpose of the farming operation.

[Ord. 123 § 24 (1976)]

5.30.250. Refunds to purchasers of fuel for aircraft.

Whenever any statement and invoices are presented to the division showing that motor vehicle fuel has been purchased and used in operating aircraft engines and upon which the fee on motor vehicle fuel has been paid, the division shall refund the fee paid.

[Ord. 123 § 25 (1976)]

5.30.260. Refunds to counties and road assessment districts.

Any county or road assessment district formed under ORS 371.405 to 371.535, which buys and uses any motor vehicle fuel for the purpose of operating or propelling road maintainers, graders, tractors, trucks and other equipment used in the construction and maintenance of public highways and which has paid any fee on motor vehicle fuel imposed or directed to be paid under this chapter either directly by the collection of the fee by the vendor from the consumer, or indirectly by adding the amount of the fee to the price of the fuel and paid by the consumer, shall be reimbursed and repaid the amount of the fee paid by the county or road assessment district as provided by MCC 5.30.200 to 5.30.250 if such machinery is used exclusively for the maintenance and construction of such public highways.

[Ord. 123 § 26 (1976)]

5.30.270. Refunds to state, cities and towns.

(A) The State of Oregon and any incorporated city or town, by its proper officer or officers, may secure from the county a refund of any and all fees imposed and collected by the county on any motor vehicle fuel purchased and used by the state or such incorporated city or town.

(B) The division may establish rules necessary to safeguard the county in the matter of the fee refunds authorized in this section. Noncompliance with any of such rules by the state or any incorporated city or town claiming refund under this section is grounds for refusal by the division to allow such claims.

(C) The procedure for refund of fees provided by MCC 5.30.200 to 5.30.250 shall apply insofar as applicable to claims for the refunds authorized by this section.

[Ord. 123 § 27 (1976)]

5.30.280. Refund of fee on fuel used in transportation of rural free delivery or special delivery mail.

(A) All fees collected by the county on the sale, use or distribution of any motor vehicle fuel used exclusively in the transportation of rural free delivery mail or special delivery mail of the United States of America shall be refunded to the person paying the fee if the person is engaged solely and exclusively in the transportation of rural free delivery mail or special delivery mail of the United States of America.

(B) Any person engaged solely and exclusively in transportation of rural free delivery or special delivery mail of the United States of America, who buys any motor vehicle fuel and uses it exclusively in the transportation of rural free delivery mail or special delivery mail of the United States of America, and who has paid any fee on motor vehicle fuel, either directly by the collection of the fee by the vendor from the consumer or indirectly by adding the amount of the fee to the price of the fuel and paid by the consumer, shall be reimbursed and repaid the amount of the fee paid by him upon presenting to the division a statement accompanied by the original invoice showing the purchase. The statement shall be made over the signature of the claimant and shall state the total amount of fuel so purchased and used by the consumer for the transportation of rural free delivery mail or special delivery mail of the United States of America. The division, upon the presentation of the statement and the voucher, shall cause to be repaid to the consumer, from the fees