Metro

600 NE Grand Ave.
Portland, OR 97232-2736
oregonmetro.gov

503-797-1600
Fax: 503-797-1792
gary.shepherd@oregonmetro.gov

Gary Shepherd, Senior Assistant Attorney

June 7, 2018

Kevin Cook, Senior Planner
Multnomah County
Land Use Planning Division
1600 SE 190th Avenue
Portland, OR 97233

RE: Metro's North Tualatin Mountains
Case #T3-2017-9165 – Use Application
PAM – Protected Aggregate & Mineral Site

Dear Mr. Cook:

This letter memorandum addresses Section 33.5735(A), governing allowed uses in the Protected Aggregate and Mineral site (PAM) impact area. The Protected Aggregate and Mining Mineral Resource Overlay Subdistrict (PAM overlay) comprises two areas, an Extraction Area and an Impact Area around it. Section 33.5735(A) states: "Uses identified through the Goal 5 process to be prohibited within the Impact Area shall not be permitted." This standard prohibits uses in the Impact Area that are identified as prohibited by the West Hill Reconciliation Report (WHRR).

Question presented:

Metro is proposing to construct trail sections in the PAM impact area overlay. The question that must be answered is: did the WHRR identify and regulate trails as a prohibited conflicting use in the impact area overlay? In other words, did the County determine that a trail located in the impact area would adversely impact or otherwise disrupt aggregate operations to the south?

Background:

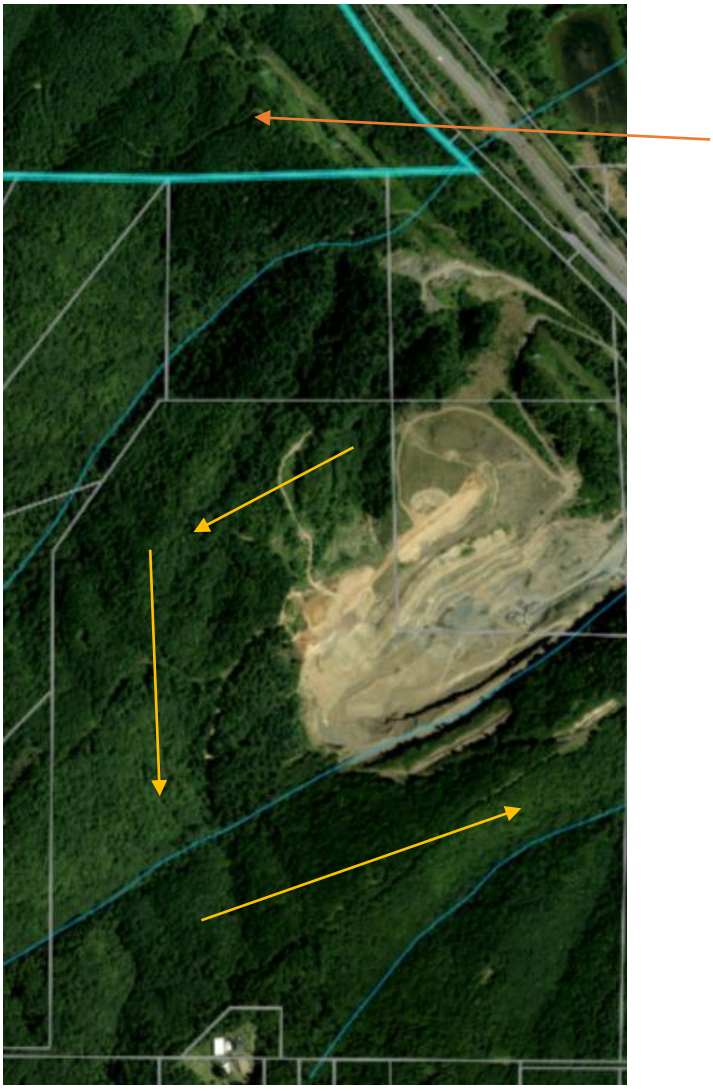
Angel Brothers operates a quarry south of Metro's Burlington Creek Forest. The quarry is designated a protected resource under the County's Goal 5 program, which requires a balance between protecting the aggregate site and allowing potentially conflicting uses around the aggregate site.

The aggregate site was studied and designated during the County's mid 1990s periodic review. That process was memorialized in the West Hill Reconciliation Report (1996)("WHRR" or the "Report"). The WHRR includes significant determinations,

Economic, Social, Environmental, and Energy (ESEE) analyses, and other requirements and suggestions for implementing Goal 5. The report was adopted into the County's Comprehensive Plan. Attached as Exhibit 1 are excerpts of the WHRR.

With respect to the Angel Brothers quarry site, the analysis and framework objective was to define the resource extraction site and limit and prohibit conflicting uses within the impact area around the protected extraction area. Conflicting uses were those uses that, if allowed, could adversely affect aggregate operations. An example of an adverse impact would be forcing a change in mining practices.

An impact area was designated to extend 1,200 feet in all directions from the extraction area (which is defined as the area in which mining is allowed). A large impact area was identified "because no analysis had been completed on the identified conflicting Goal 5 resources…." WHRR at IV-17. As a result, a PAM impact area is overlaid on the southern portion of the Metro property, in which trail sections are proposed.



Metro property – north of blue line. Trail locations are north of forest practice road depicted in photo (orange arrow points to road).

Mining – extraction site.
Per WHRR, resource extraction cannot occur north of north drainage (stream line south of Metro property line).

Extraction is directed to go west from existing quarry pit until western setback is achieved and then south across middle drainage and then east towards Highway 30 (yellow arrow is path of extraction).

The resource extraction area is approximately 2,000 feet from the Metro boundary and directed away from Metro property. The plan states that mining will have no impact on the northern drainage, which is south of Metro's property. The extraction setback provides an additional natural and forested buffer between Metro and the quarry.

The WHRR was adopted into a preexisting PAM overlay code structure, added in 1994 by Ordinance 804 Section IV. The 1994 regulations mirror today's code and the language in 33.5735(A) above. Exhibit 2. The regulations are intended to protect mineral resource sites, allow mining subject to uniform operating standards, and to regulate conflicts with surface mining operations.

The 1996 Report classified uses allowed in the Commercial Forest Use (CFU) district as either representing 1) no conflict, 2) may conflict but unlikely to occur, or 3) may conflict. Depending on the use classification, different recommendations were then made to reduce potential conflicts with mining operations.

The conclusions are summarized as follows: the following uses were initially identified as potential conflicting uses with mining - forestry uses, wildlife habitat, streams and wetlands, residential uses and scenic resources. After examination, of these uses, *only* residential uses and streams and wetlands were determined to have the potential to adversely affect future mining operations. Of note, the WHRR did not identify or discuss trails and hiking, or other recreational forestry uses encouraged by Goal 4[1] as conflicting uses.

Below is a further elaboration of uses examined and the County's analysis.

Uses allowed in CFU district - **No conflict**

On CFU land, the County identified forest operations, forest practices, and physical alteration to the land auxiliary to forest practices, including road construction and recreational facilities, as allowed uses that will NOT conflict with the aggregate resources. There are numerous other listed allowed, non-conflicting uses – all of which were found to not satisfy the DEQ definition of "noise sensitive property."[2] The County found these uses, including recreational facilities, "if allowed in the impact area, would pose no threat to quarry operations or force a significant change in the current or future mining activities." The County determined that forest operations, forest practices, and physical alterations of the land auxiliary to forest practices for recreational facilities are to be allowed fully in the impact area. WHRR at VI-21.

Trails constitute a forest recreational use – which pose no threat to and do not conflict with mining activities, and are allowed fully in the impact area.

[1] Goal 4 provides that the regulation of forest land is: "To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture."

[2] DEQ regulations, OAR 340-35-015(38) defined "noise sensitive property" as "real property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries…"

Uses allowed in CFU district - **May conflict but unlikely to occur**

In this list of allowed uses in CFU district *which may conflict but are unlikely to occur*, the County identified uses that either meet the DEQ definition of noise sensitive property or are uses that could adversely be affected by dust or traffic resulting from mining activities.

This list includes forest labor camps, seasonal accommodations, as well as "parks and campgrounds," all identified as types of uses that could be impacted by a nearby mining operation and therefore conflict with a mining operation.

The Report states that the "Parks" considered in this analysis were:

> "…land extensive uses that are categorized by the Comprehensive Plan as *Minor Community Facilities (Plan Policy #31)* and considered Conditional Uses by Zone. *Minor Community Facilities* require direct access to at least a collector street. All roads in the impact area are local with the exception of US Highway 30 which is a major arterial. There are no large ownerships within the impact area with direct access to Highway 30." (Emphasis added).

Attached as Exhibit 3 is Policy #31. Because no collector street served the Burlington Forest, the County concluded that the types of "parks" considered by it – which were minor community facilities requiring direct access onto a collector – were not likely to occur. Other minor community facilities identified in Policy 31 include libraries, schools, meeting rooms, care facilities, clinics, churches, and neighborhood recreation centers. Transitory trails in a natural setting are not similar to these uses.

Additionally, the "parks" likely considered were those with constant or frequent presence of larger numbers of people for extended periods of time that may be impacted by noise and dust from aggregate extraction, similar to other Minor Community Facilities listed above. Examples of those types of "parks" would be ball fields, play grounds, sport courts/areas, golf courses, and uses of similar nature. Those activities are not transitory/pass through in nature – as are trails through a forest. Through this analysis, the County determined that destination resorts, certain types of residences, camps and accommodations, and "parks" should not be allowed, as they are either noise sensitive uses or would conflict with or be adversely affected by mining operations. WHRR at IV-23, 24, and VI-22.

Of note, forest recreational activities – including hiking, biking, and horseback riding, were common on the Burlington Forest prior to and during the WHRR development. They were not activities unlikely to occur. Rather, they were activities that were occurring, were likely to occur and which represent no conflict as provided for in the no-conflict section above. The County did not intend for trails and other forest recreational activities (such as horseback riding, ATV use, off-road cycling, bird watching, and hiking) to be lumped into its analysis of "parks" which may conflict, but were not likely to occur.

Uses allowed in CFU district **– May conflict**

The list of uses that may conflict with mining operations is limited to residences – forestland dwellings, replacement dwellings, and temporary use dwellings – all of which meet the DEQ definition of noise sensitive property. Trails do not meet the definition of noise sensitive use and were not identified as a conflicting use.

Conclusion:

WHRR reconciliation/protection measures were not designed to address or otherwise regulate or limit trails. Trails were not intended by the County and its WHRR to be a prohibited use in the impact area. Trails were never identified as a conflicting or potentially conflicting use. Trails constitute a forest recreational use. The County determined that forest recreational uses pose no threat to and do not conflict with mining activities and are allowed fully in the impact area.

If you have any questions or concerns with the information or response provided, please contact me directly at 503-797-1600 or gary.shepherd@oregonmetro.gov. Metro thanks you for your time and assistance with this application review.

Sincerely,



Gary Shepherd
Office of Metro Attorney

Enclosures

EXHIBIT 1



West Hills
Reconciliation Report
Revised -- May 1996

Amendment to Multnomah County Comprehensive Framework Plan Volume One: FINDINGS

Prepared by:
Multnomah County
Planning Division

TABLE OF CONTENTS

I. Introduction

II. Scenic Views of the West Hills

III. Stream Resources

IV. Angell Brothers Aggregate Site

V. Wildlife Habitat

VI. Conflict Resolution and Protection

CHAPTER I

INTRODUCTION

ORS 197.628 requires cities and counties to review their comprehensive plans and land use regulations periodically and make changes necessary to keep plans and regulations up-to-date and in compliance with the statewide planning goals. If plans are found to be out-dated or not in compliance with statewide planning goals, local governments must adopt findings and enact measures to make their plan and regulations current.

On October 30, 1980, the Land Conservation and Development Commission acknowledged the Multnomah County Comprehensive Framework Plan and land use regulations to be in compliance with the statewide planning goals. Approximately seven years later, on August 27, 1987, the Department of Land Conservation and Development (DLCD) notified the county of requirements under the periodic review and initiated a periodic review process with the county. On February 22, 1989, Multnomah County submitted its proposed periodic review order to the DLCD, and the department subsequently directed the county to complete additional work on two aggregate sites. The additional work was completed and conveyed to the DLCD on June 27, 1990.

The Land Conservation and Development Commission on April 23, 1993 determined additional Goal 5 work needed to be completed on several aggregate sites, streams and West Hills wildlife and scenic views (Remand Order 93-RA-876). This Remand Order required Multnomah County to complete work by October 29, 1993. Several extensions have been granted by the Land Conservation and Development Commission, in part because additional work on streams needed to be completed which had not been anticipated in the Remand Order.

The revised work program requires Multnomah County to complete a Goal 5 planning process that concludes with the adoption of "Reconciliation Reports" and protection measures which resolve (reconcile) stream, wildlife, scenic views and mineral/aggregate resource issues. Two "Reconciliation Reports" have been prepared, one for the West Hills rural area and the other for the east rural county area in the vicinity of Howard Canyon. The "West Hills Reconciliation Report" and the "Howard Canyon Area Reconciliation Report" focus on different Goal 5 issues.

Four Goal 5 resource issues exist in the rural West Hills of the county and two Goal 5 resource issues are analyzed in the Howard Canyon area. West Hills Goal 5 resource issues which are analyzed include wildlife, scenic views, streams and the Angell Brothers aggregate site. In the Howard Canyon area, three streams within the Howard Canyon drainage and the Howard Canyon aggregate site are the subject of the Reconciliation Report.

In general, the Reconciliation Reports record the County's effort to complete the Goal 5 process as outlined in OAR 660-16-000. The rule requires local governments to analyze the significance of Goal 5 resources, and, if deemed significant (designated "1-C"), determine the appropriate level of protection ("3-A", "3-B", and "3-C") and provide protection strategies. The process includes a number of steps intended to provide the basis for establishing a rationale for deciding which resources should be protected and what types of protection are required.

Specifically, the Goal 5 process begins with the local government determining significance based on an analysis of location, quality, and quantity. The local government is required to use the best available information to make determinations throughout the Goal 5 process. If the resource is deemed "significant" it is designated "1-C" and the process continues. Conversely, the process is concluded if the resource is determined to not be significant and designated "1-A". Significant resources must then be analyzed to determine the appropriate level of protection when compared to other resources and conflicting uses. This analysis compares the **E**conomic, **S**ocial, **E**nvironmental, and **E**nergy consequences of protecting the entire resource as compared to allowing conflicts to exist. This analysis is commonly referred to as the ESEE analysis. The last step in the Goal 5 process is the determination of the level of protection based on the rationale provided by the the ESEE analysis. At this final step, local governments are required to identify the "uses" that will be allowed on the resource site and vicinity, and explain programs deemed necessary to protect the resource.

The "Reconciliation Report" is organized in a manner that follows the Goal 5 process. The report consists of two major parts: "Resource" chapters for each Goal 5 resource under review (*i.e.,* streams, scenic view, wildlife, mineral/aggregate), followed by the "Conflict Resolution and Protection Program" chapter. Each "resource" chapter is broken down into three subsections. Subsection "A" explains the "significance" determination and includes a discussion of "location", "quantity", and "quality". Subsection "B" contains the ESEE analysis, including a description and rationale for the "Impact Area" and a listing and description of conflicting uses. Subsection "C" contains the appendixes, which include technical background information.

The last chapter of the "Reconciliation Report" is the "Conflict Resolution and Protection Program". This chapter reconciles conflicts between each Goal 5 resource and other uses and/or other Goal 5 resources. The chapter also reaches conclusions concerning the appropriate level of protection and suggests specific protection strategies. Subsection "B" discusses previously identified ESEE consequences for each conflicting use and reconciles any differences to reach conclusions concerning whether conflicting uses should be allowed. Subsection "C", "Resource Protection", determines the level of protection and dis-

cusses a protection program for each of the Goal 5 resources.

During the preparation of this report, numerous opportunities for public review and comment were provided. Determinations of significance for mineral & aggregate resources(both Angell Brothers and Howard Canyon), scenic views, and wildlife habitat were distributed for public review and comment from March 11 through March 21, 1994. All of these determinations of significance were reaffirmations of previous decisions made by the Multnomah County Board of Commissioners (Howard Canyon quarry - 1990, Angell Brothers quarry - 1992, scenic views and wildlife habitat - 1993). Determinations of significance for West Hills streams in the vicinity of the Angell Brothers quarry and Howard Canyon streams were distributed for public review and comment from March 28 through April 5, 1994. Determination of significance for the remainder of West Hills streams was distributed for public review and comment from April 28 through May 11, 1994.

A review and comment period for all of the resource analysis sections (conflicting uses, impact area, ESEE analysis) except for West Hills streams outside of the Angell Brothers quarry area was provided from April 11 through April 25, 1994. The resource analysis section for the remainder of the West Hills streams was available for public review and comment from April 28 through May 11, 1994.

A draft of this "Reconciliation Report" was completed by the Multnomah County Division of Planning on May 23, 1994. This draft was the subject of three weeks of public review, culminating in a joint public hearing of the Multnomah County Planning Commission and Board of Commissioners on June 13, 1994. Additional written comment was received until June 20, 1994. On June 21, 1994, the Multnomah County Planning Commission deliberated upon the draft "Reconciliation Report" and approved it with minor changes. This approval was appealed by two parties to the Board of Commissioners, which then held a public hearing on the draft "Reconciliation Report" on July 26, 1994. On August 9, 1994, the Board of Commissioners made a tentative decision to approve the "Reconciliation Report" with amendments, and directed Planning Division staff to return on September 13, 1994 with a revised final "Reconciliation Report." On September 13, 1994, the Board of Commissioners adopted an ordinance approving the final "Reconciliation Report," which had its second reading on September 22, 1994.

The "Reconciliation Report" is considered an amendment to the Multnomah Comprehensive Framework Plan. The "Reconciliation Reports" include both findings and policy recommendations. Policy recommendations will be incorporated into the Comprehensive Framework Plan by separate actions by the Multnomah County Planning Commission and Board of County Commissioners pursuant to the Multnomah County Code and state statutes. Also, some subsequent Planning Commission and Board actions may be required to implement the full set of strategies outlined in the protection programs.

The "Reconciliation Report" is intended to satisfy in part the requirements of the Land Conservation and Development Commission's Remand Order 93-RA-876 and satisfies all other statewide goal requirements of the county's work program approved by the Commission, WKPROG - 0038.

On October 21, 1994, Multnomah County transmitted the completed Reconciliation Report to the Department of Land Conservation and Development. The Department received two objections to the West Hills Reconciliation Report, one from an attorney representing the Angell Brothers and the Oregon Concrete & Aggregate Producers Association, and one from Dan McKenzie, a property owner in the West Hills. On February 7, 1995, the Director of the Department of Land Conservation & Development issued a report which found significant flaws in the West Hills Reconciliation Report. In response to County and objector comments, the Director issued a revised report on February 28, 1995, which did not change the staff recommendation regarding the West Hills Reconciliation Report.

Given this set of circumstances, Multnomah County agreed to enter a mediation process with the Department of Land Conservation and Development. The results of that mediation process are presented as revisions to the Reconciliation Report in the attached document. The Multnomah County Board of Commissioners adopted this document on September 7, 1995. On March 7, 1996, the Land Conservation and Development Commission approved this document with one minor change required -- removal of properties adjacent to the Bonny Slope subdivision. This final document reflects these changes.

CHAPTER IV

ANGELL BROTHERS MINERAL AND AGGREGATE

TABLE OF CONTENTS

		page
A.	SIGNIFICANCE DETERMINATION	
1.	Background	IV–3
2.	Location	IV–3
3.	Quantity	IV–5
4.	Quality	IV–6
5.	Conclusion	IV–7
B.	RESOURCE ANALYSIS	
1.	Mining Plan	IV-7
2.	Impact Area	IV–17
3.	Conflicting Uses	IV–19
a.	Zoning Districts and Resources Within the Impact Area	IV–19
b.	Uses Allowed by Zoning	IV–20
c.	Other Goal 5 Resources	IV–27
4.	ESEE Analysis	IV–28
a.	Economic Effects	IV–28
b.	Social Effects	IV–31
c.	Environmental Effects	IV–32
d.	Energy Effects	IV–33
e.	Other Applicable Statewide Planning Goals	IV–36
5.	Resource Analysis Summary	IV–38
a.	General Conclusions	IV–38
b.	Synopsis of ESEE Consequences	IV–39
C.	Appendix	
1.	Citations	IV–43

MAPS

Map of Angell Brothers Resource Site	IV–4
Map of Angell Brothers Resource Site & Impact Area	IV–10

A. SIGNIFICANCE DETERMINATION

1. BACKGROUND

This first portion of an ESEE analysis is the determination of significance. The procedure for that determination is given in OAR 660-16-000 (1) through (5). The rule directs the local government to determine whether there is sufficient information on the location, quality and quantity of the resource at a particular site. Then, based on that evidence, the local government must decide if the site is significant. The County's Comprehensive Plan will then reflect that conclusion. A prior determination of significance for this site was adopted on April 24, 1990 and concluded that the Angell Brothers' site was significant and the site was included in the significant (important) site inventory. The following significance determination incorporates currently available information on location, quantity and quality as required by the administrative rule.

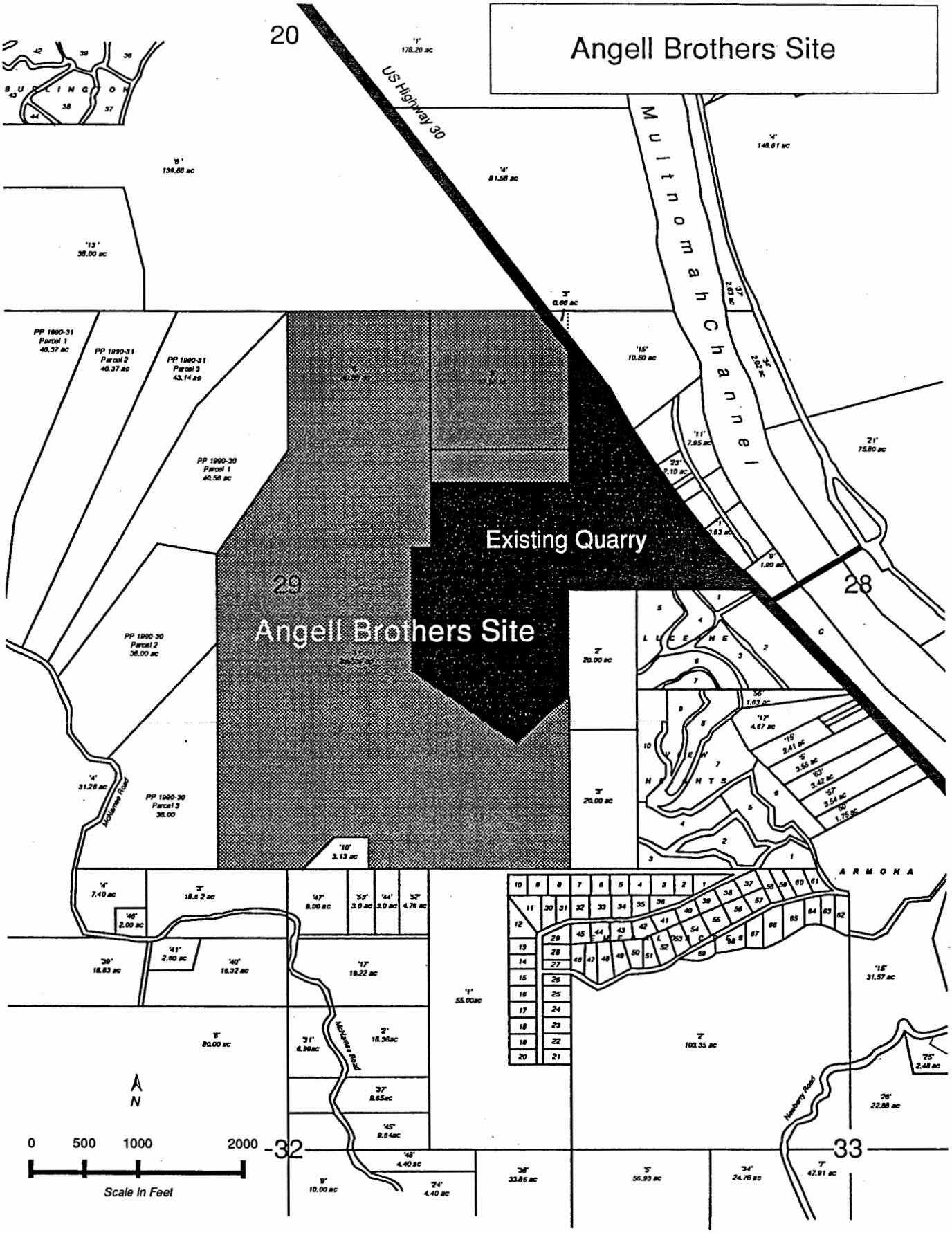
2. LOCATION:

The Angell Brothers site is approximately two miles north of the city limits of Portland, with direct access to US Highway 30, and less than 1/4 mile north of the Sauvie Island Bridge. Access to the site is by way of Highway 30 onto a paved access road. The legal description of the property is Tax Lot 12, in the NW 1/4 of Section 28, T2N, RIW, Willamette Meridian; and Tax Lots 2, 6, 8 and 11 in the E 1/2 of Section 29, T2N, RIW, Willamette Meridian, 1993 Assessor's Map.

A 114 acre portion of this site is an operating rock quarry. The operation consists of mining, crushing, stockpiling, and transport of various forms of aggregate material throughout the Portland Metropolitan Area.

The Oregon Department of Geology and Mineral Industries indicates that there are five other fully operating mineral extraction operations within Multnomah County. Those include Gresham Sand & Gravel, Multnomah County Vance, Roger's Construction, Oregon Asphaltic Paving, Portland Sand and Gravel, and Yett. With the exception of the Portland Sand and Gravel and Yett operations which are located at 107th and SE Division Street and 5949 NE Cully Boulevard respectively (in Portland), all of those operations are located in the vicinity of SE 190th Avenue between SE Division and SE Yamhill streets (in Gresham). An additional production site, Ross Island Sand and Gravel which is regulated by the Division of State Lands, is located at 4315 SE McLoughlin Blvd. There is an additional mineral resource site on the Multnomah County plan inventory that is identified as being significant and capable of future production. That is the Howard Canyon site on SE Howard Road approximately 3/4 of a mile east of NE Littlepage Road in Section 36, T1N, R4E. The City of Portland plan inventory contains no additional significant sites.

All of these sites, with the exception of the Howard Canyon site (local road access only), have direct access to a least a major arterial within the metropolitan area. The Angell


Angell Brothers Site
20
US Highway 30
Multnomah Channel
Existing Quarry
29
Angell Brothers Site
28
32
33
McNamee Road
Newberry Road
LUCERNE
VIEW HEIGHTS
ARMONA
N
0 500 1000 2000
Scale in Feet

have direct access to a least a major arterial within the metropolitan area. The Angell Brothers site is the only operating site within Multnomah County that can serve the western portion of the metropolitan area without crossing a Willamette River bridge. The Angell Brothers site, then, when considering road access and proximity to the metropolitan area, is similar to all but one (Howard Canyon) of the other operating and inventoried mineral and aggregate sites within Multnomah County.

3. QUANTITY:

A study by H. G. Schlicker and Associates, submitted in August, 1989, analyzed the geologic characteristics of the entire 397 acre site (Exhibits E, F & L contained in case file CU 17–90 which is incorporated by reference). That report indicates that the rock material consists of a series of Tertiary Columbia River Basalt flows stacked one upon another, some as much as 70 feet thick. Those flows are overlain in many places by Quaternary loess which the Schlicker report found to range up to 70 feet thick on one ridge top. That report concluded that, based upon their materials tests, borings, and seismic studies, this site most likely contains approximately 220 million cubic yards of very good aggregate material.

In the development of the mine plan for the expansion area, both environmental and geologic constraints will reduce the actual availability of minable rock. In particular, the importance of maintaining scenic views dictates retention of visual buffers near the northern and eastern limits of the property. Consideration of both surface and ground water issues dictates retaining a 5% slope at the elevation of the current pit floor, rather than mining down to the level of Highway 30, thereby limiting the vertical extraction of available rock. In reclamation plan comments, ODF&W and DOGAMI have suggested a 200-foot mining setback from the property boundaries.

In addition, measures to protect fish and wildlife habitat would result in the following restrictions on mining: (1) an approximately 73-acre forested buffer will be preserved along the northeast property boundary; (2) a 200-meter (approximately 630 feet) setback will be observed from the nearest exterior wall of the Wruble residence along a meandering line at the southeast boundary of the mine property; (3) a setback that varies up to approximately 200 meters will be observed along the portion of the 3,400 foot northwest property boundary that drains into North Angell Brothers Stream, and a 300-foot mining setback will be observed along the approximately 800-foot north property boundary that abuts the watershed. To ensure long term slope stability, final reclamation "cut slopes" will not exceed 1.5(H): 1(V) in rock and 2.5(H): 1(V) in loess. Fill slopes shall not exceed 3(H): 1(V). Based on all of these considerations, actual minable reserves are reduced from a theoretcial maximum of 220,000,000 cubic yards to approximately 60,000,000 cubic yards.

The geology of this resource site is indicated to be comparable to a majority of the central portion of the Tualatin Mountains extending from the Dunthorpe area to beyond the northwesterly corner of Multnomah County (Trimble, 1963 – Geology of Portland, Oregon and Adjacent Areas, which is incorporated by reference). There is, however, no available quantitative quality or quantity information for other properties within that geologic unit. The

most recent information is a Mineral and Aggregate Resources Inventory (incorporated by reference) by the Portland Bureau of Planning (August, 1988) which discusses the following sites within that unit:

- Cornell #9 – an inactive site with about half of its excavation potential remaining;

- Forest Park #10 – a currently inactive, but potential future small-scale extraction site with ninety percent of the resource available; and

- Rivergate #11 – an inactive site with a large reserve which was closed due to conflicts with potential redevelopment of the surrounding area.

The study concludes that all three should be designated 1–A.

The only other mineral and aggregate resource site within the county for which there is any available quantity and quality information is the Howard Canyon site in east Multnomah County. That site contains 2.2 million cubic yards of available resource (see Resource Significance Determination, Chapter II Howard Canyon Reconciliation Report).

Multnomah County Comprehensive Framework Plan Policy 16–B states, "Determination that a particular mineral and aggregate site is both Important and should be included in the plan inventory is to be based on the site's proven ability to yield more than 25,000 cubic yards of resource." Exhibit L of CU 17–90 indicates that this resource site normally produces up to 810,000 tons of aggregate material per year, which converts to a minimum of 401,000 cubic yards (using the specific gravity of 2.5 indicated in the Schlicker report and ignoring interstitial spaces within the crushed material). This site, therefore, is significant because it has a demonstrated production capability in excess of 25,000 cubic yards. It is also significant with respect to other mineral and aggregate resource sites in the county for which quantity information is available, having a reserve of 100 times that of the Howard Canyon site.

4. QUALITY:

Appendix D of the Schlicker report contains laboratory analyzes indicating that the material meets Oregon State Highway Department specifications for base rock. The samples tested exceeded the other standards in the Test Standards by Usage matrix contained in Table 1. of that same report.

The Schlicker report indicates that "...the processed rock at the site easily passes all common specifications." The report concludes that, "The rock is well suited for use as aggregate in asphaltic concrete and as base, subbase, topping, riprap and embankments. The rock is also suitable for use as aggregate in cement concrete under certain conditions. The overburden is satisfactory for embankment landscaping and landfill operations as well as reclamation of the site."

The laboratory studies presented in the Schlicker report consist of a number of various tests for both hardness and particle size. The only available information with which to

compare the material from this site to other resource sites is also from the Howard Canyon site. The only comparable test conducted at both sites is a Los Angeles Abrasion test. The percent loss or wear results of that test must be less than 35 percent to meet Oregon State Highway Department specifications. The percent loss or wear of the material tested from the Angell Brothers resource site was 12.2% and 15.0%, while that of the material tested from the Howard Canyon resource site was 32.7%. The Angell Brothers mineral and aggregate resource site, therefore, is also significant in terms of the quality of the material when considering available information from other resource sites within Multnomah County.

5. CONCLUSION:

The entire 397 acre property remains a significant Goal 5 Mineral and Aggregate site based on the above description of location, quantity and quality.

B. RESOURCE ANALYSIS

This section addresses the part of the administrative rule which directs the local government to: (1) identify land uses which would conflict with the resource,and (2) analyze the economic, social, environmental, and energy consequences allowing, limiting or prohibiting the mining and the conflicting uses. The last task, (3) determination of the level of protection for the resource, will be considered in Chapter VI.

1. MINING PLAN

The lands leased by Angell Bros. for aggregate extraction are displayed and discussed in the proposed Operating and Reclamation Plans prepared by Lidstone & Anderson and BRS, Inc. dated February 14, 1995

In 1976 Angell Brothers assumed control of mining begun in 1958. The original disturbance predated the enactment of the 1972 Mined Land Reclamation Law (ORS 517.750-517.990), and is "grandfathered" under the State of Oregon mining regulations. In 1980, Conditional Use Permit CU 34-80 (amended later that year as CU 34-80a) was issued by Multnomah County. This permit allowed Angell Bros. to mine and process aggregate on 71 acres near Highway 30. Multnomah County renewed this permit in 1986 (CU 9-86). In 1990, a Conditional Use Permit (CU 17-90, No. 66) was issued by Multnomah County for mineral extraction on an additional 42 acres. The permitted area encompasses a total of approximately 113 acres of minable resource. Of this 113 acres, approximately 32 acres is "grandfathered" under the Mining Land Reclamation Act. The proposed expansion will include an additional 283 acres of permitted mining area, although mining will occur in only approximately half of this area.

The Operating and Reclamation Plan addresses the baseline data, mine operation and reclamation issues relating to both the existing permitted area and expansion of quarry operations. It incorporates all mine-related set-backs, buffer strips, and reclamation alternatives as they relate to both the "grandfathered" and post-1972 disturbance.

In general mining will continue to occur along the north side of Middle Angell drainage until the western set-back is achieved. The mine path will turn across the creek during the dry season and mining will continue along the south side of the drainage in an eastward direction. During the initial phase of mining, the Middle Drainage will be maintained along the southern valley wall and isolated from truck traffic. Hydrologic and sedimentation control will be achieved with sedimentation ponds and dry wells.

Contemporaneous reclamation will occur during the course of mining. This allows direct haul of reclamation materials onto mined benches, so that as soils are stripped, they can be directly placed onto the final reclamation sites while organic matter and seed sources retain maximum viability. Waste rock and reclamation loess stockpiles will be placed at critical locations for reclamation purposes throughout the property. Once an upper bench is completely mined, the bench will be reclaimed to its final configuration. Reclamation will include accelerated weathering and geometrical changes to the individual benches to achieve diversity in final configuration, replacement of suitable growth medium upon the final surface, and revegetation and final plantings. Contemporaneous reclamation will provide visual screening of the upper benches during the early years of mining as well as providing diversity in age, size and species within the final reclaimed landform. Contemporaneous reclamation will also provide viable wildlife habitat along the outskirts of the mining disturbance during the later years of mining.

a. Soils

A moderately developed, thin veneer of topsoil is present on the ridgetops adjacent and within the proposed mining area. The A-horizon ranges in thickness from 0 to 8 inches and a poorly developed B-horizon ranges from 4 to 12 inches. Minimal topsoil development occurs along valley sideslopes. The topsoil has developed over a thicker mantle of Quaternary Age loess. The vegetation assemblage and rooting depths suggests that the underlying loess material will provide more than adequate growth medium.

Angell Bros. proposes to salvage the Portland Hills Silt for reclamation cover soils. Based on preliminary volumes, approximately 3,300,000 cubic yards of loess are present within the mining area. Based on the historic market, Angell Bros. anticipates selling approximately 50% of this volume, leaving 1,650,000 cubic yards for final reclamation.

b. Groundwater

Three adjacent area water wells were identified at the higher elevations off McNamee Road. The three wells were completed in a confined aquifer within a basalt formation at depths averaging 700 feet. At the quarry operations area (about 150 feet above mean sea level), the well depth is approximately 100 feet. Based on geological mapping of the basalt flows and correlation of the confining bed between the three domestic water wells, the proposed mine plan will not encounter ground water.

c. Surface Waters

No site dewatering will be required because the water table is below the quarry floor. The site does not contain any wetlands listed on the U.S. Fish and Wildlife Service's National Wetlands Inventory nor any sensitive or declining aquifers as defined by DEQ or the Oregon Water Resources Department. Three surface drainages are present. The largest of these surface drainages, the Middle Drainage, flows only on a seasonal basis and would be classified as an intermittent stream. No perennial water courses exist on site. All channels effectively end on the west side of Highway 30.

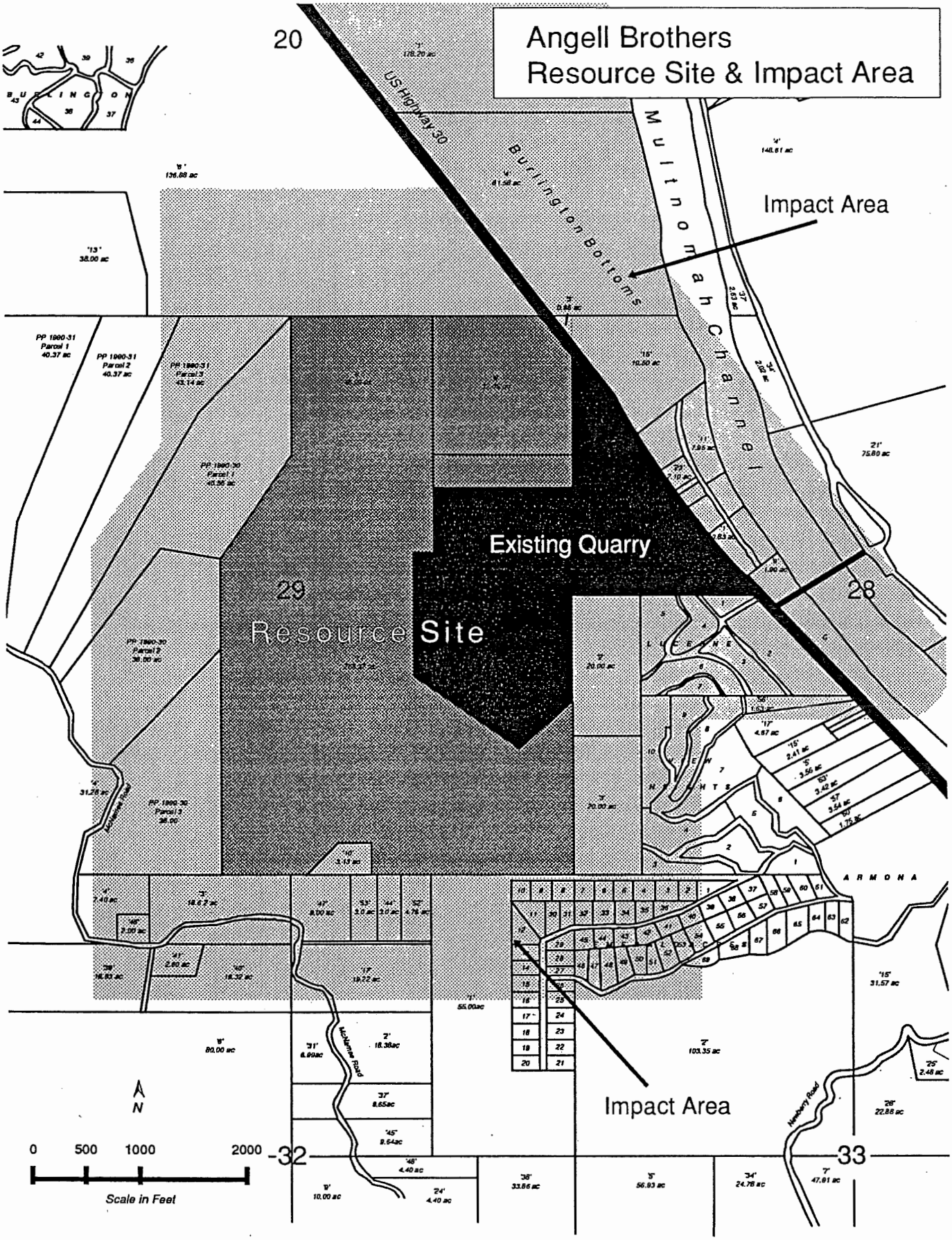
The northern channel crosses the northeast corner of the property through a culvert in a forested area and can convey surface waters to the Burlington Bottoms. The southern channel ends at the steep wall bordering the highway. The proposed mining operation will have no impact on the northern drainages. The Middle Drainage conveys flow through the existing operations area of the quarry. Angell Bros. has an approved DEQ storm water control plan for this drainage, which prevents commingling of the surface drainage with storm water from the mining operation.

A storm water pollution control plan was issued October 23, 1992 by the Oregon Department of Environmental Quality. Storm water will be detained on site in settling ponds. The existing control system will continue to be used for the proposed mine expansion. Size adjustments will be made as necessary, in order to maintain the existing level of control for off-site discharge.

There are two surface water outfalls from the property. One is located near the intersection of the haul road (to the upper working stage level) and the main entrance to the office area. This outfall is the discharge point for the majority of the base flow from the area of the site that is presently active. Stream water enters a vertical riser pipe which conveys the flow to the ODOT storm drain culvert which passes under Highway 30 and discharges to the west side of the railroad.

When expansion is permitted, the first settling pond will be re-located and re-sized to maintain the same water quality standards. Sediment barriers (either rock piles or gabion dams) using waste rock materials will be placed in the sediment pond outflow ditch to reduce water velocity and permit additional sediment removal before the water enters the second settling pond. Chemical flocculents may be used if needed to remove additional sediment particles.

The Middle Drainage will be protected throughout mining and reclamation operations in accordance with the DEQ Stormwater Permit and DOGAMI requirements. At critical locations the drainage will be diverted in a culvert. At less critical locations, a berm averaging four (4) feet in height will be constructed adjacent to the open channel to ensure no commingling with disturbed area runoff. Berm height is designed to convey the 100-year 24-hour design event with a minimum of one (1) foot of freeboard.


Angell Brothers
Resource Site & Impact Area
20
US Highway 30
Burlington Bottoms
Multnomah Channel
Impact Area
Existing Quarry
29
Resource Site
28
Impact Area
32
33
N
0
500
1000
2000
Scale in Feet

d. Water Quality

In December 1992, water samples from the quarry were collected and analyzed for five water quality parameters. Sample Site I was taken from the settling pond at the bottom of the highwall (Site I), sample II from the culvert outflow into the downstream settling pond (Site II). The results are presented in Table 1. The site is in compliance with all DEQ water quality standards.

TABLE 1: SELECTED WATER QUALITY MEASUREMENTS IN SETTLING PONDS

PARAMETER	UNITS	DETECTION LIMITS	SITE I	SITE II	DISCHARGE LIMITS
pH	S.U.	---	6.82	7.16	6.0-9.0
Total Suspended Solids	mg/L	1.0	261	14	None
Settleable Solids	ml/L/hour	0.1	0.4	ND[1]	0.2
Turbidity	N.T.U.	0.5	95	53	None
Oil and Grease	mg/L	0.6	less than 0.6[2]	less than 0.6[2]	10

1ND = none detected at or above the detection limit listed.
2 Trace amount; none detected at or above the indicated value which represents the detection limit.

The high level of total suspended solids measured at Site I are removed from the water column by the time flows enter Site II. This suggests that the Site I settling pond and connecting trench are functioning and performing as intended. Other measured values are low enough to cause no concern. Total suspended solids and turbidity have no defined discharge limits (Nomura 1992).

e. Mine Reclamation

A directly advancing mining face allows the operator to remove the aggregate resource in a manner consistent with minimal disturbance to the adjacent stream body. The mine plan encompasses a laterally sustainable earthwork balance which allows contemporaneous reclamation of the mined-out benches. This minimizes the amount of reclamation materials stored in temporary stockpiles and allows the operator to haul and replace reclamation materials directly. Direct "haul-back" materials provide natural seed sources, thereby providing a diverse assemblage of native and non-native vegetation. Because of a continuous program of mine reclamation over the life of the mine, the mine and reclamation plan will promote vegetative diversity in both age, size of regrowth and species.

The proposed reclamation will increase the opportunities for wildlife habitat and natural open spaces by restoring lands to the maximum extent practical for Commercial Forest Use zoning, incorporating natural drainage features to enhance wildlife habitat quality

and diversity, by providing a long-term naturally stable geomorphic landform, and developing an area-wide mosaic of plant communities that will result in a variety of wildlife habitats to support birds and mammals during various phases of their lives, and by assuring that mammals entering a bench from one side will be able to travel along it and exit on the other side.

f. Landform Stability

A geotechnical landslide evaluation was performed for the existing and proposed quarry site by a professional engineering geologist in connection with the Reclamation Plan to evaluate the stability of the quarry site under both near term (during mining) and long term conditions (post reclamation) and provide recommendations for final slope configurations. Over 90 % of all excavated slopes will be in basalt. The remaining slopes will cut the Portland Hills silt where it occurs. The existing valley walls reflect a "geomorphically stable" condition. Although rock topple has occurred no mass stability problems were identified at the site. The maximum final reclamation cut slopes in the basalt will be 1.5:1 and will closely approximate existing slope conditions. Because these final slopes will be benched or in technical terms "unloaded", they will be at least as stable as the native valley slopes.

Proposed mine cut slopes are dominantly perpendicular to strike and face inward from the permit boundary where a minimum 200-foot buffer zone has been left at all property boundaries. In addition Blocks 1, 2, and the northeast face of Block 4 will not be mined. Leaving these blocks unmined will provide a geotechnical barrier between the quarry and Highway 30. Although the probability of slope failure, other than rock topple and slope ravelling, is very limited, the runout of any conceivable failure would be contained within the quarry itself due to cut slope orientations.

Based on the results of available geologic data, regulatory requirements and the slope stability analysis, Angell Bros. will construct highwall slopes and benches to meet MSHA standards, construct final reclamation slopes in basalt to achieve a 1.5(H):l(V) average slope condition, construct final loess cut slopes to achieve 2.5(H):l(V). horizontal average slope condition, construct temporary waste rock and loess stockpiles to achieve l(H):l(V) average slope condition, and construct permanent waste dumps and reclamation fills to achieve a minimum of 3(H): l(V) slope condition.

g. Reclamation

The mined benches will be reclaimed to improve geometrical diversity and ensure successful revegetation utilizing on site salvaged materials. Prior to placement of any fill materials on the mined benches, Angell Bros. will pre-rip the bench floors to provide a "shear key" and improve vertical drainage below the final fill. The basic reclamation concept incorporates a stratified replacement of two products of the mining operation: (a) 2 1/2 inch minus waste rock for coarse material substrate and (b) loess overburden material for cover soils. The stratified sequence will behave agronomically as a "flower pot drainage" condition. When soil moisture content is at or below field capacity,

moisture will be retained in the upper (fine) layer of the soil. When soil moisture content exceeds field capacity (gravitational water or saturated conditions), the upper layer will drain to the lower layer and to the bench floor. This concept is important for not only revegetation success, but will also provide a second level of geotechnical stability by way of internal drainage over and above the stability established by the 3(H):I(V) final slopes.

Three typical reclamation bench configurations will be used. The first presents a "horizontal" fill on the bench floor, with the final surface being manipulated to provide local depressions, roughened surface features, and thicker fills. The second typical bench configuration will be manipulated to produce a complex slope (4:1 to 3:1 variability). Surface drainage will slope away from the highwall to minimize the collection of water against the back of the fill. On both of these typical bench configurations, grasses and forbs will initially stabilize the surface and a variety of deciduous trees, spruces and firs will provide diversity of native species.

The third typical bench configuration was developed to create scenic variety and to minimize the rectilinear landforms associated with a rigid adherence to benching standards. Type 3 will be "shot" by the operator and an angle of repose talus slope will form at the toe of the slope. This slope condition will reflect accelerated weathering and will also promote wildlife movement from one bench to the next. The talus slopes will be allowed to revegetate itself naturally. The remaining portion of the benches will be revegetated in the same manner as the other two types.

The number and type of final bench configurations will vary throughout the mine area. Excess overburden and waste rock will be available throughout the mined area. The availability of these materials will allow latitude and diversity in the final reclamation configuration.

The weathering of the rock walls at the reclaimed Angell Bros. site will occur more rapidly than at the Rivergate Quarry, where weathering and natural spalling process occurred naturally, to blend the rock walls into the natural landscape. As trees become established on the individual benches, they will provide visual screens of the disturbance and serve to provide wildlife habitat. At Rivergate, natural succession was the principal agent of reclamation, and trees became well established within the first 10 years following abandonment. Angell Bros.' reclamation efforts will accelerate this process.

Upon completion of mining activities on any given bench, recontouring and ripping of the bench and adjacent highwall will be performed. Following placement of the coarse material substrate and loess material cover soil and when weather permits, the site will revegetated. Exposed soils will be mulched for erosion control when seeding must be delayed because of unfavorable weather conditions. Tree and shrub planting will occur the first autumn after ground cover has been established.

Native plant species suited to open and forested areas will be selected for test plots on

the basis of climactic zone, soil type, moisture requirements, and availability. In addition, the following guidelines will be followed: for each vertical layer from ground to tree canopy, a mixture of species will be used to include species that exhibit both warm and cool season growth and provide a balance of habitats and cover for a broad range of birds, mammals, reptiles, and amphibian animals. Seeding and planting will be done at the beginning of the first growing season following seedbed preparation, preferably just prior to winter precipitation.

h. Test Plots

Commencing in approximately 1998, Angell Bros. will also conduct a number of vegetation test plot analysis to evaluate revegetation techniques, seed mix versus volunteer, substrate-type and characteristicsm. These test plots will be conducted with the advice of ODF&W and DOGAMI for this site and for future reclamation or restoration projects in the Willamette Valley.

The mining plan sets aside approximately half the site for non-mining uses, including wildlife habitat, scenic buffers, and stream buffers. The mining plan will not have negative impacts on available wildlife habitat or wildlife migration routes in the area. As noted in a letter (June 20, 1994: Appendix C) from Jill Zarnowitz (ODF&W) to Scott Pemble (Multnomah County Planning), "long term benefits to wildlife can be achieved through conscientious reclamation of the quarry and subsequent establishment of conservation easements in areas adjacent to McNamee Road." Angell Bros. will address ODFW concerns regarding the wildlife corridor by restricting mining near this area, if necessary, until forest cover has been reestablished.

i. Scenic Views

Shaping, grading, erosion control, and visual impact mitigation maximize the protection of scenic views by the following measures: maintaining vegetated buffers along the entirety of the site along Highway 30; contemporaneous reclamation that promotes early visual screening of benches immediately following mining of upper benches; significantly increasing the length of a lower gradient reclaimed channel and increasing in acreage the final pit floor to allow construction of riparian habitat and wetlands along the pit floor; direct haulback of reclamation materials to retain maximum viability of topsoil; and establishing the third type of typical bench configuration wherever possible to achieve diversity in character of the reclaimed hillslopes.

The reclaimed lands will be made as harmonious as possible to the surrounding land forms, natural drainage patterns, and visual contrasts. The bench form will enhance the success of revegetation. The final land form will be geomorphically stable, promote successful revegetation, prevent wind and water erosion, be compatible with the surrounding landforms, and fit visually with adjacent areas of the West Hills. Mining activities will be conducted so that benches follow existing contour lines. This provides variety in the final landscape and facilitates both reclamation efforts and post-mining use of the area.

The view of the full expansion mine from select locations along Sauvie Island will not be substantially worse with the expansion of mining than the same views would be if no expansion occurred. This is due to full retention of the existing land contours and all the vegetation near Highway 30. Figure 17 in the Reclamation Plan presents a three dimensional view of the existing disturbance from a critical public location -- the Sauvie Island store. This view represents the current permitted condition. No reclamation has taken place. The computer view is "naked," and therefore does not account for any trees within the foreground (i.e. on the berm), along the vegetated buffer strip adjacent to Highway 30 nor on the adjacent hills. In the foreground of the quarry, the current wall of the 450 bench is visible. The disturbance immediately above the working bench, including the upper benches and adjacent clear cuts is visible. The left and right foreground ridges are existing vegetated or treed slopes.

Figure 18 is generated from the same viewpoint and at the same scale as Figure 17. It represents the topographic condition, following the end of mining in the proposed expansion area. Again, this is a "naked" view, with no trees. In fact, the left and right foreground ridges will never be disturbed by mining and will remain heavily treed. The mined area will consist of irregular geometrically diverse series of benches and steps in the landform. The lowered ridgeline will blend in with the natural hillslopes in the general area. As the viewer looks from right to left within the quarry area, or from the top of the disturbance down, a contrast in age of weathering and age/size of trees would be apparent. Similar conditions might occur on a natural landform.

A similar condition could be seen from other viewpoints. Views from the north, such as the Bybee-Howell House are more fully screened by the vegetated buffer area along Highway 30. Views from the northeast such as the bike path at the Wildlife Refuge are at such distance, that only the color contrast might be apparent. This contrast will be a short term condition and will be mitigated by reclamation and natural weathering of the hillslopes. Views from the eastern end of Sauvie Island and from Kelly Point will show a similar initial contrast, which will be mitigated over time. The new ridge lines will smoothly blend into the existing ridge line and transitions will be sustained: by the regrowth of the current clear cut forest; by the maintenance of vegetated buffers and setbacks; and by the successful reclamation at the Angell Bros. site.

Most of the area is screened by both landform and vegetation from public notice. The principal processing, weighing and loading facilities will remain at their present location and will be screened from the public view by the Block 4 vegetated buffer strip. No significant increase in dust or noise levels are anticipated due to the expansion of the operation. With respect to the mining activities, in general, only the higher elevations could be seen, and on these upper benches, reclamation will occur immediately following mining, so that the visual impacts will be limited.

Vegetation on the slopes and ridgetops adjacent to Highway 30 will remain in place to provide both visual and noise screening from that direction. The only existing public road in the vicinity is McNamee Road which passes the southwest corner of the

property. The property boundary is generally at a higher elevation than the road and will retain the existing vegetation along the edge. All other access in the area is by private driveway or similarly-restricted access roads.

There are no plans to establish any additional berms or vegetation except for those created during sequential reclamation of mined benches. However, planting Douglas-fir seedlings (especially along the higher benches) will provide an effective and aesthetically pleasing visual screen.

Upon final reclamation, all structures, equipment, and refuse will be removed from the site. Excess fill from the waste rock stockpiles will be placed on the quarry floor, graded and covered with loess coversoil. All temporary culverts will be closed and abandoned in place. The quarry floor and operational areas will be shaped, graded, and revegetated to blend with the rest of the area. This area will be left in a condition compatible with the final beneficial use of the property, as an area protected by conservation easement.

i. Compliance

In addition to annual monitoring of the permit by DOGAMI, reclamation success will also be monitored by the operator. Vegetation success, wildlife usage and surface erosion will be monitored annually for three years following reclamation of the site. Visual inspections will continue to occur annual throughout the life of the mining operation using quantitative and qualitative performance standards acceptable to DOGAMI. The monitoring results will be documented and copies will be forwarded to DOGAMI. Monitoring results may dictate modifications in the revegetation plan, and a longer monitoring period may be necessary to achieve the stated goals. Monitoring of the quality of water leaving the property shall continue to be addressed in DEQ requirements through the NPDES Storm Water Discharge Permit No. 1200-A.

Monitoring will be tied to specific revegetation and hydrologic objectives. The intent is to demonstrate that the reclamation functions as designed and to achieve reclamation bond release for the mine operator.

2 IMPACT AREA

The Goal 5 Rule requires identification of an impact area surrounding the resource site if different from the resource site itself [OAR 660-16-000(2)]. The impact area for a mineral and aggregate site must be the area which includes uses that could adversely affect utilization of the resource, plus the area that includes those uses which could be affected by a mineral and aggregate operation.

On December 29, 1992, The Board of County Commissioners adopted an ESEE analysis for a proposed 283 acre expansion area of this resource site (Final Order PR 7–92). The impact area identified in that decision included:

"...the site itself; property adjoining the site located west of State Highway 30; the City of Portland's Forest Park; a peninsula of land between Portland's Forest Park and the forests of Oregon's coast range, popularly known as a "wildlife corridor"; downstream areas, located east of State Highway 30, including a small wetland to the east, the 430 acre Rafton-Burlington Bottoms wetland to the northeast, and Multnomah Channel; residences adjoining the Channel and houseboats on the Channel; and Sauvie Island."

Findings #3-11 of the Board's Final Order identify conflicts between extraction of the mineral resource and forestry uses, wildlife habitat, streams and wetlands, residential uses, and scenic resources. Of these, only residential uses and streams and wetlands have the potential of adversely affecting a future mining operation. Residential complaints regarding noise and dust could potentially restrict areas and methods of operation. Regulatory controls limiting the type and amount of discharge into streams and wetlands could also place limitations on an operation.

The Board's 1992 decision identified a large impact area because no analysis had been completed on the identified conflicting Goal 5 resources (wildlife habitat, streams and wetlands, and scenic resources). Consequently, the entire area of those resources was included in the impact area of this site. Each of those resources, however, has subsequently been evaluated by a separate ESEE analysis, each with their individual impact area. The impact areas of each of those resources includes this resource site and considers the potential impact of mining on the resource being considered; conversely, the impact area for this resource site should be large enough to include a portion of each of the resource areas for wildlife habitat, streams and wetlands, and scenic resources so that potential conflicts with those resources can be considered.

The two remaining conflict issues identified by the Board are forestry and residential uses. The finding regarding impacts on forestry uses is limited to the site of the mineral and aggregate resource. Therefore, the entire site should be included in the impact area.

With respect to residential issues, the Board relied on three items of written testimony [Sauvie Island Conservancy Letter, Linnton Letter, and Bellant Letter (see Appendix)] and the oral testimony of Darlene Wruble (see Appendix) to establish the area of conflict with

states, "... excessive dust and noise from the quarry's present operation have been common occurrences for nearby residents..." Therefore, existing and potential nearby residences should be included in the impact area. The Linnton Letter is concerned with truck traffic on US Highway 30, wildlife, and site reclamation. Portions of US Highway 30, adjacent wildlife habitat, and the resource site should be included in the impact area. The Bellant Letter (undated, but received July 2, 1992) addresses impact on neighboring homes, property and roads, scenic, wildlife and water resources, and site rehabilitation. The impact area should include neighboring homes, property and roads, areas of conflict with the scenic, wildlife and water resources previously mentioned, and the site itself. The Wruble testimony concerns noise and dust problems associated with the existing operation encountered by an adjacent property owner. Therefore, the Wruble property should be included in the impact area.

Of the various issues identified, complaints regarding noise, blasting and dust, and traffic could adversely affect utilization of the resource. Conversely, utilization of the resource may adversely affect wildlife habitat, streams and wetlands, and scenic resources, all of which are Goal 5 resources.

A study by Daly, Standlee & Associates dated September 25, 1992 to evaluate compliance of DEQ noise regulations of a proposed mining expansion with respect to surrounding residences indicted there would be no violation of the DEQ standards during phases I and II of the operation proposed at that time. The study also indicated that there would be violations of those standards without mitigation measures during phases III and IV. The nearest residence to phases I and II (no noise impact) is located 1,200 feet away from that proposed operation area, and residence located most distant from phases III and IV (noise impact) is 600 feet away. The point at which DEQ noise standards are exceeded, therefore, is somewhere between 1,200 and 600 feet from the active mining site. Lacking information regarding the exact distance of that point, a 1,200 foot impact area is appropriate to consider noise issues.

A letter dated May 24, 1992 from Steve Harris of Austin Powder Company (see Appendix) states that, based on seismic measurements taken at a number of locations including at least four properties in the surrounding area, "...vibrations...were significantly below the accepted particle velocity limit..." as determined by the US Bureau of Mines and other State and Federal agencies. The letter indicates that, "As an example of the level of vibrations produced from the shots at the quarry, we recorded higher vibrations from trains going through the tunnel than we did from a shot." That tunnel is located on property adjacent to the northeast of this resource site. Therefore, only adjacent properties, at most, need be included in the impact area to consider blast impact issues.

Location specific dust problems were raised as an issue in the Bellant Letter. Ms. Bellant resides at Bridgeview Moorage located in Multnomah Channel adjacent to Tax Lot '11', Section 28, T2N, R1W. That moorage is approximately 800 feet from this resource site. All properties within 800 of the resource site should be included in the impact area to consider dust issues.

Increased mine truck traffic on US Highway 30 has been identified as a concern relative to any expanded activity at this site (Linnton Letter).

The structural cross section of US Highway 30 is designed to accommodate truck traffic. This includes the type of traffic that is generated by the quarry. Therefore, the estimated maximum of 250 truck trips per day (estimated by applicant's submittal in PR 7–92) will not adversely effect the normal life cycle of the structural cross section of the roadway.

The "1992 Oregon Department of Transportation Traffic Volume Tables" indicate the section of Highway 30 north of the Sauvie Island Bridge has an average daily trip (ADT) count of 16,000, and the portion south of the bridge 20,000 ADT. Using those 1992 tables, ODOT staff computed the peak hour peak direction traffic volume at 1,200 vehicles. Given the four travel lanes with center left configuration, ODOT staff estimates the 1992 Level of Service to be "B". Consequently, Highway 30 has sufficient capacity to accommodate increased truck volume in the vicinity of the Sauvie Island Bridge.

Since ODOT indicates that US Highway 30 has sufficient capacity and structural capability to safely handle the traffic generated by the quarry operation, traffic on Highway 30 will not be considered a conflicting use.

An impact area of 1,200 feet from the perimeter of the resource site would also include resource areas of all of the potentially conflicting Goal 5 resources. The site itself is within the West Hills Scenic Area, the West Hills Wildlife Habitat Area, and the Water Resource and Wetland Sites. Burlington Bottoms is immediately to the northeast of the site across US Highway 30. Burlington Bottoms is one of the state's largest remaining wapato wetlands and a designated '3–C' Goal 5 resource. Therefore, an impact area including this resource site plus that area 1,200 feet in all directions from the perimeter of this resource site and including Burlington Bottoms (tax lot '7', Sec. 17; tax lots '1', '2' and '4', Sec. 20; and, tax lot '15', Sec. 28, all in T2N, R1W) is selected since it will include all known conflict issues as discussed above (see Map on page 10).

3. CONFLICTING USES

The Goal 5 Rule requires identification of conflicting uses. A conflicting use is one which, if allowed, could adversely affect a Goal 5 resource site. Identifying conflicting uses is primarily done by examining uses authorized by zoning districts within the impact area.

a. Zoning Districts and Resources Within the Impact Area

The majority of the property within the impact area (the resource site plus a 1,200 foot perimeter area) is zoned Commercial Forest Use (CFU). Exceptions to this include that area east of US Highway 30 and west of Multnomah Channel which is designated Multiple Use Agriculture (MUA–20), and an area on the westerly edge of Sauvie Island in the vicinity of the Sauvie Island Bridge which is designated Exclusive Farm Use (EFU). There is a small portion of one lot (Tax Lots '27' & '56', Section 28, T2N, R1W, 2.00 acres) to the south of the easternmost tip of the site designated Rural Residential

(RR) within the impact area.

The Rural Residential lot is developed with a single family residence located 150 feet outside of the impact area. The portion of the lot within the impact area consists mainly of Bonneville Power Administration right-of-way. Since the lot is committed to residential use and no development is allowed within the BPA right-of-way, there is no other category of use that could be made of of that portion of the lot within the impact area. Rural Residential uses, therefore, will not be considered in the conflict analysis.

Also, the Exclusive Farm Use area will not be considered in this analysis since the portion of the impact area designated EFU consists entirely of property developed with a portion of the dike which protects Sauvie Island. With the exception of occasional grazing, no use is allowed of the dike.

There are two overlay zoning districts within the impact area, the Willamette River Greenway (WRG) and Flood Hazard (FF) & (FW). With the exception of the FW overlay which limits uses allowed by the base zone, those overlay districts do not identify allowed uses, rather, they place design restrictions on uses allowed by the base zone. Therefore, they will not be considered in the conflicting use analysis.

There are three other Goal 5 resources which have been identified within the impact area. Those include wildlife habitat, streams and wetlands, and scenic resources.

b. Uses Allowed by Zoning

Multnomah County is required to allow only those uses allowed by new requirements of Goal 4–Forest Lands and the Goal 4 Rule, even though they have not yet been incorporated into the CFU section of the Zoning Code. Therefore, the items i.–iv. of the following analysis only consider uses allowed by the Goal 4 Rule and the potential conflicts between allowing those uses and protection of the mineral resource. Uses allowed in the the CFU district are also allowed in the MUA-20 district; uses discussed under the MUA-20 district are exclusive to that district.

i. Allowed Uses Not Applicable to the Analysis

The following uses allowed in the Commercial Forest Use district are not applicable to the analysis:

- Exploration for mineral and aggregate resources as defined in ORS Chapter 517

- Widening of roads within existing rights-of-way in conformance with the transportation element of acknowledged comprehensive plans including public road and highway projects as described in ORS 215.213(1)(m) through (p) and ORS 215.283(1)(k) through (n)

- Exploration for and production of geothermal, gas, oil, and other associated

hydrocarbons, including the placement and operation of compressors, separators and other customary production equipment for an individual well adjacent to the well head

- Mining and processing of oil, gas, or other subsurface resources as defined in ORS Chapter 520, and not otherwise permitted under OAR 660-06-025(3)(m) (e.g., compressors, separators and storage serving multiple wells), and mining and processing of aggregate and mineral resources as defined in ORS Chapter 517

- Temporary asphalt and concrete batch plants as accessory uses to specific highway projects

- Public road and highway projects as described in ORS 215.(1,(2)(q) through (s), 215.213(10), 215.283(2)(p) through (r) and 215.283(3)

- Activities involving utilization of a mineral resource cannot conflict with mineral and aggregate resource protection since the purpose of protecting a mineral resource is for its eventual use.

- Expansion of existing airports

There are no airports within the impact area.

- Destination resorts reviewed and approved pursuant to ORS 197.435 to ORS 197.465 and Goal 8

Destination resorts are not allowed on sites of less than 160 acres. There are no sites of that size within the impact area.

There are no allowed uses in the Multiple Use Agriculture district in addition to those listed above which are not applicable to the analysis.

ii. Allowed Uses that Will Not Conflict With the Aggregate Resource

The following uses allowed by the Commercial Forest Use district within the impact area would not conflict with, or be impacted by, protection or utilization of the significant resource:

- Forest operations or forest practices including, but not limited to, reforestation of forest land, road construction and maintenance, harvesting of a forest tree species, application of chemicals, and disposal of slash (on properties within the impact area other than the site itself)

- Temporary on-site structures which are auxiliary to and used during the term of a particular forest operation (on properties within the impact area other than the site itself)

- Physical alterations to the land auxiliary to forest practices including, but not limited to, those made for purposes of exploration, mining, commercial gravel extraction and processing, landfills, dams, reservoirs, road construction or recreational facilities (on properties within the impact area other than the site itself)

- Farm use as defined in ORS 215.203

- Local distribution lines (e.g., electric, telephone, natural gas) and accessory equipment (e.g., electric distribution transformers, poles, meter cabinets, terminal boxes, pedestals), or equipment which provides service hookups, including water service hookups

- New electric transmission lines with right of way widths of up to 100 feet as specified in ORS 772.210. New distribution lines (e.g., gas, oil, geothermal) with rights-of-way 50 feet or less in width

- Temporary portable facility for the primary processing of forest products

- Towers and fire stations for forest fire protection

- Water intake facilities, canals and distribution lines for farm irrigation and ponds

- Uninhabitable structures accessory to fish and wildlife enhancement

- Permanent facility for the primary processing of forest products

- Permanent logging equipment repair and storage

- Log scaling and weigh stations

- Disposal site for solid waste that has been ordered established by the Environmental Quality Commission under ORS 459.049, together with the equipment, facilities or buildings necessary for its operation

- Disposal site for solid waste approved by the governing body of a city or county or both and for which the Oregon Department of Environmental Quality has granted a permit under ORS 459.245, together with equipment, facilities or buildings necessary for its operation

- Television, microwave and radio communication facilities and transmission towers

- Fire stations for rural fire protection

- Utility facilities for the purpose of generating power

- Aids to navigation and aviation
- Cemeteries

The following uses allowed by the Multiple Use Agriculture district within the impact area would not conflict with, or be impacted by, protection or utilization of the significant resource:

- Wholesale or retail sales of farm or forest products raised or grwon on the premises or in the immediate vicinity
- Commercial processing of agricultural products primarily raised or grown in the region
- Raising any type of fowl or processing the by-products thereof for sale at wholesale or retail
- Feed lots
- Raising of four or more swine over four months of age
- Raising of fur bearing animals for sale at wholesale or retail
- Commercial dog kennels
- Commercial processing of forest products primarily grown in the region
- Cottage Industries
- Limited rural service commercial uses

These uses do not satisfy the DEQ definition of noise sensitive property. There is no available information that they would be impacted by potential dust or traffic resulting from mining activity. These uses, if allowed within the impact area, would pose no threat to quarry operations or force a significant change in current or future mining activities.

iii. Allowed Uses that May Conflict, but Unlikely to Occur

The following uses allowed by the Commercial Forest Use district within the impact area either meet the DEQ definition of noise sensitive property, or are uses that could be adversely affected by dust or traffic resulting from mining activities.They could conflict with, or be impacted by mining activities, but are unlikely to be sited within the impact area.

- Temporary forest labor camps

- Caretaker residences for public parks and fish hatcheries

- Private seasonal accommodations for fee hunting operations

- Private accommodations for fishing occupied on a temporary basis

The locational requirements for the above uses are not present within the impact area. Proximity to the Portland Metropolitan Area and relatively small ownerships eliminate the possibility of forest labor camps and hunting lodges. All of these uses, however, are residential in nature, and that land use category will be considered in section D below.

- Water intake facilities, related treatment facilities, pumping stations, and distribution lines

- Reservoirs and water impoundments

These two uses are uses which would provide an urban service. Such uses are not encouraged outside of the Urban Growth Boundary. Further, the three streams within the impact area are unlikely to be dammed, and Multnomah Channel is incapable of being impounded.

- Forest management research and experimentation facilities accessory to forest operations

- Private hunting and fishing operations without any lodging accommodations

- Parks and campgrounds

These are land extensive uses that are categorized by the Comprehensive Plan as Minor Community Facilities (Plan Policy #31) and considered Conditional Uses by zone. Minor Community Facilities require direct access to at least a collector street. All of the roads in the impact area are local with the exception of US Highway 30 which is a major arterial. There are no large ownerships within the impact area with direct access to Highway 30.

There are no allowed uses in the Multiple Use Agriculture district in addition to those listed above which may conflict, but are unlikely to occur.

These uses will not be treated as conflicting uses to utilization of the aggregate resource at this site.

iv. Allowed Uses that May Conflict

The following uses allowed by the Commercial Forest Use district or the Multiple Use Agriculture district within the impact area may conflict with or be impacted by mining activities on the resource site:

CFU

- Forestland dwellings
- Alteration, restoration or replacement of a lawfully established dwelling
- A mobile home in conjunction with an existing dwelling as a temporary use for the term of a hardship suffered by the existing resident or a relative

MUA-20

- Residential use consisting of a single-family dwelling constructed on a lot
- Residential use, consisting of a single-family dwelling constructed off-site, including a mibile or modular home
- Residential use, consisting of a single-family dwelling for the housing of help re quired to carry out a primary use
- Houseboats and Houseboat Moorages
- Planned developments for single-family residences
- Community Service Uses (see MCC 11.15.7020 for a complete list of these uses)

The above uses satisfy the DEQ definition of noise sensitive property. Noise sensitive property is defined by OAR 340–35–015(38) as:

> "...real property normally used for sleeping, or normally used as schools, churches, hospitals, or public libraries. Property used in industrial or agricultural activities is not noise sensitive property unless it meets the above criteria in more than an incidental manner."

There are 15 residences on land and two existing houseboat moorages with a total of 38 houseboats and one moorage under development with 19 houseboats and a caretakers residence within the impact area. The nearest residence to the resource site is approximately 400 feet to the south.

The potential for additional dwellings in the impact area is relatively low While most

of the Multnomah Channel waterfront within the impact area is developed with marinas or moorages, there exists potential for some redevelopment and expansion of these water-dependent uses. There are three subdivisions which were created in 1909 and 1911 and eight vacant Lots of Record within the impact area. The subdivisions are held in large private, public, and semi-public ownerships. Due to the new forest goal rules, topography and access problems, it is unlikely that any of those subdivided properties would be developed for residential use. The existing and potential residential uses, however, both impact and are impacted by mineral extraction. They will be considered conflicting uses.

For the purposes of this analysis, community service uses allowed conditionally in the MUA-20 district will be considered to have similar impacts as residential uses. The community service uses which conflict, such as churches, schools, and libraries, do so because they are noise-sensitive as defined by OAR 340–35–015(38)

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources do, and will continue to occur in the impact area. While they do not impact mineral extraction, they could be adversely impacted by mining. They will be considered as conflicting uses, but limited to soil, air and water quality uses. Uses to provide for wildlife and fisheries resources will be considered along with the West Hills Wildlife Habitat Area and West Hills Water Resource and Wetlands.

- Forest operations or forest practices including, but not limited to, reforestation of forest land, road construction and maintenance, harvesting of a forest tree species, application of chemicals, and disposal of slash (on the resource site).

Permanent management of the resource site for forest operations or forest practices would prohibit the short-term mineral and aggregate use of the resource site itself. The site, however, has been proposed to be reclaimed for forest purposes after mining. Mining would preclude the immediate management of the site for forest purposes, while reclamation could provide for future forest management. The Forest Goal and Rule designate mining and processing of mineral and aggregate resources as locationally dependent uses. Such uses may be allowed when it is found that:

- The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

- The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel; and

- A written statement recorded with the deed or written contract with the county or its equivalent is obtained from the land owner which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules for uses authorized in OAR 660-06-025(4)(e), (l), (r), (s) and (v).

Since utilization of the resource site for mineral and aggregate use requires evaluation against the above criteria, forestry on the site itself will be considered a conflicting use.

c. Other Goal 5 Resources

i. West Hills Scenic Area

The West Hills Scenic Area has been identified as consisting "...of the east face of the West Hills (Tualatin Mountains) between the ridgeline and Highway 30, extending from the Portland City Limits to the Columbia County line. The attributes of the resource which make it significant are the landform, consisting of a combination of hillside and ridge bisected by numerous canyons; the vegetation pattern, which provides a blanket of various shades of green along with colorful fall foliage; the intactness, or lack of development to disrupt the overall forested appearance; and unity, because the West Hills are part of the mountain chain extending from Portland to the Coast Range."

The Angell Brothers mine has been identified as an existing conflicting use to the scenic resource. "Mining requires removal of vegetation, changes the landform, and the exposed rock face creates a highly visible intrusion on the forested hillside. The size of the disturbed area, as well as the amount of screening vegetation and topography, affects the degree of visual conflict. Mining activities, like logging, can be considered temporary, and reclamation is required...Whether the site returns to a state approximating the visual nature of adjacent forest lands after mining is completed depends upon the efficacy of the reclamation plan approved and administered by the Oregon Department of Geology and Mineral Industries (DOGAMI)."

The West Hills Scenic Area, therefore, is a conflicting Goal 5 resource.

ii. West Hills Wildlife Habitat Area

The West Hills Wildlife Habitat area has been identified as the entirety of Multnomah County north of the City of Portland and west of US Highway 30. This resource site is within that habitat area; therefore, wildlife is a potential conflicting Goal 5 resource.

iii. Water Resource and Wetland Sites

There are three streams which flow through this site. The northerly stream (Angell Brothers North) has been identified as being a significant Goal 5 resource and designated "1C" and will be considered potential conflicting uses. The other two streams (Angell Brothers Middle and South) are not significant and are designated "1A". The Rafton/Burlington Bottoms and the east bank of Multnomah Channel have been designated "3–C" and are within the impact area of the Angell Brothers resource site. Consequently, the Rafton/Burlington Bottoms and the east bank of Multnomah Channel will be considered potential conflicting uses.

4. ESEE ANALYSIS

The Goal 5 rule requires that if conflicting uses to the resource are identified, the economic, social, environmental, and energy (ESEE) consequences of the conflicts must be identified. Both the impacts on the resource site and on conflicting use must be considered in analyzing the ESEE consequences. The applicability and requirements of other Statewide Planning Goals must also be considered, where appropriate at this stage of the process.

The ESEE consequences will be analyzed by examining, (1) the effect on use of the aggregate resource if conflicting uses are allowed fully without restriction, and (2) the effect on conflicting uses if development of the aggregate resource is allowed fully without restriction. The conflicting uses to be considered include:

- Residential and conflicting Community Service Uses
- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources
- Forest operations or forest practices on the resource site
- West Hills Scenic Area
- West Hills Wildlife Habitat Area
- Water Resource and Wetland Sites

a. Economic Effects

i. Economic Effect on Use of the Aggregate Resource if Conflicting Uses are Fully Allowed

- Residential and conflicting Community Service Uses

There is no available information regarding the economic effect of residential and

conflicting community service uses on mining. Such uses may generate complaints which, in turn, may result in changes in operational methods with possible additional production expense and increased end product costs. Residential use of the site itself would prevent any expansion of the mining activity.

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

The development of these uses within the impact area would have no economic impact on the aggregate resource. Any mining operation would have to be conducted within environmental control standards insuring compliance with air and water quality standards, and possible permit conditions to conserve soil resources and provide for wildlife and fishery resources. Satisfaction of those standards and conditions represent operational expenses that would be incurred at any time mining occurred.

- Forest operations or forest practices on the resource site

Use of the site solely for forestry purposes would prevent mining. A letter from Frank Parisi, Angell Brothers representative (see Appendix), indicates that the rock material at this resource site is worth 42 million dollars, and the site provides a payroll of about $500,000.

- West Hills Scenic Area

Full protection of identified scenic resources would prevent mining expansion. That would result in the loss of the value of the resource at this site.

- West Hills Wildlife Habitat Area

Full protection of identified wildlife resources would prevent mining expansion. That would result in the loss of the value of the resource at this site.

- Water Resource and Wetland Sites

The Rafton/Burlington Bottoms is a "3C" Goal 5 resource site. The existing mining operation is conducted in compliance with state regulations that insure minimal adverse impact on that site, as would be the case for any expanded operation. Compliance with those regulations represents an operational expense. The form of mine expansion would be limited if the significant stream on the site is fully protected.

ii. Economic Effect on Conflicting Uses if Development of the Resource is Allowed

- Residential and conflicting Community Service Uses

Mining would have an effect of reducing construction and maintenance costs for residential development within the impact area due to reduced hauling costs. Each hour of hauling aggregate material adds at least $4.60 to the cost per ton of material [1990 ODOT letter to DLCD (see Appendix)]. There is no documented evidence in the record regarding the effect of mining on property values.

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

Any mining operation would be conducted within environmental control standards insuring compliance with air and water quality standards, and possible permit conditions to conserve soil resources and provide for wildlife and fishery resources. Satisfaction of those standards and conditions would have no economic impact on conservation uses within the impact area.

- Forest operations or forest practices on the resource site

The Board has previously found that the 283 acre proposed expansion area is capable of producing timber resources worth over six million dollars. That potential would be lost on mined portions of the site until they were reclaimed for forestry purposes if mining occurred Productive use of this land for forestry purposes after mining is completed would depend upon the effectiveness of the reclamation plan approved by DOGAMI.

- West Hills Scenic Area, Wildlife Habitat Area, and Water Resource and Wetland Sites

The economic impacts of loss of wildlife habitat, scenic resources and streams and wetlands directly impact our quality of life. The protection of significant natural resources has direct economic benefits that contribute substantially to our quality of life. Quality of life is an important consideration for business recruitment and retention. Forest Park, one of the nation's unique urban parks, is an amenity which enhances livability in Multnomah County which in turns attracts and supports a healthy and viable business community. Multnomah County's wildlife and natural resources (Forest Park, Sauvie Island, Columbia Gorge) are key elements in the state and region's tourism industry.

b. Social Effects

i. Social Effect on Use of the Aggregate Resource if Conflicting Uses are Fully Allowed

- Residential and conflicting Community Service Uses

The addition of new residences or conflicting community service uses in the impact area would increase the potential for complaints regarding noise, dust, vibration, etc.; thereby, potentially limiting the extent of an expanded mining operation (Final Order PR 7–92 § 22).

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

There have been no adverse social impacts on mining identified that would result with respect to conservation activities on properties in the impact area.

- Forest operations or forest practices on the resource site

Use of the site solely for forestry purposes would prevent mining. The social impact of that would be the conscious elimination of the production of one construction material in favor of the production of another.

- West Hills Scenic Area

Prohibition of mining to preserve the scenic resource would have the social impact of limiting the availability of a needed construction material.

- West Hills Wildlife Habitat Area

Preservation of the site for wildlife habitat would prevent mining expansion. That would also have the social effect of limiting the availability of a needed construction material.

- Water Resource and Wetland Sites

Any mining expansion would have to be conducted in a manner that minimizes impact on the "3C" Rafton/Burlington Bottoms. The impact on North Angell Brothers Creek would be considered a limitation on an expanded operation since it has been found to contribute to the park/recreation facility of Burlington Bottoms. Middle Angell Brothers Creek has been found not to contribute flow to Burlington Bottoms.

ii. Social Effect on Conflicting Uses if Development of the Resource is Allowed

- Residential and conflicting Community Service Uses

Increased mining would not prevent additional residential and conflicting community service uses on legal Lots of Record within the impact area. Mining, crushing, and trucking could add to the noise and dust experienced by residents and users of community service facilities within the impact area.

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

There are several conservation easements within the impact area intended to maintain natural habitat areas in the West Hills. Their utility would be diminished by mining activities. Also, mining would fragment the "peninsula" of open space that connects Forest Park with the forests of the coast (Final Order PR 7–92 § 20 and 21).

- Forest operations or forest practices on the resource site

Use of the site solely for mining purposes would prevent its immediate use for forestry purposes. Reclamation could allow for its future utilization for forestry. The social impact of that would be the conscious acceptance of the short-term production of one construction material versus the long-term production of another.

- West Hills Scenic Area, Habitat Area, and Water Resource and Wetland Sites

Mining requires removal of vegetation, changes the landform, and the exposed rock face creates a highly visible intrusion on the forested hillside. The size of the disturbed area, as well as the amount of screening, vegetation and topography, affects the degree of visual conflict.

- West Hills Wildlife Habitat Area

The West Hills have a psychological value to people, being perceived as an integral and important part of the forested landscape linking Forest Park to the Coast Range; contributing to the image of a natural area with wildlife habitat on the outskirts of Portland; and providing a scenic backdrop to visitors and residents of Sauvie Island. Loss of these significant natural resources will have a social public impact if the educational and recreational opportunities are eroded.

c. Environmental Effects

i. Environmental Effect on Use of the Aggregate Resource if Conflicting Uses are Fully Allowed

- Residential and conflicting Community Service Uses

The only identified environmental effect of these uses on the aggregate resource is the required compliance with environmental control standards which regulate impact on residential and conflicting community service uses.

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

Mining conducted in compliance with environmental control standards would have no identified effect on conservation activities on properties within the impact area.

- Forest operations or forest practices on the resource site

Use of the site solely for forestry purposes would prevent mining. That would result in no environmental effect on the aggregate resource.

- West Hills Scenic Area

Total preservation of the site for scenic purposes would prevent mining.

- West Hills Wildlife Habitat Area

Mining to the west and south of the existing site could attenuate the contiguous connection between Forest Park and the remainder of the West Hills rural area and could result in the isolation of Forest Park wildlife from the forests of the Coast Range for terrestrial species. Expansion of the mining activity within that area would not be allowed if the wildlife habitat is fully allowed.

- Water Resource and Wetland Sites

The Rafton/Burlington Bottoms is a "3C" resource site. Any Mmining plan which proposes to mine in the watershed of the North Angell Brothers Creek, which drains into Burlington Bottoms, must minimizes any environmental impacts on that resource. The significant stream on the site has been found to have wildlife habitat in the upper portions of the watershed. Expansion of the mining activity within that area would not be allowed if the wildlife habitat is fully allowed.

ii. Environmental Effect on Conflicting Uses if Development of the Resource is Allowed

- Residential and conflicting Community Service Uses

Expanded development of the mineral resource could result in increased noise, dust and vibration. Such development, however, would have to be conducted in compliance with environmental control standards. Compliance with those standards could still result in complaints, but would have no adverse environmental impact on residential and conflicting community service uses.

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

An expanded mining operation would have no identified environmental conflict with conservation activities on properties in the impact area.

- Forest operations or forest practices on the resource site

Use of the site solely for mining purposes would prevent its immediate use for forestry purposes. Reclamation would allow for its future utilization for forestry. An inability to reclaim the site as a functioning forest habitat would be an adverse environmental effect on the forest resource of the site.

- West Hills Scenic Area, Wildlife Habitat Area, and Water Resource and Wetland Sites

There would be a direct loss of wildlife habitat in West Hills. Loss of prime wildlife habitat in the West Hills means attenuation of the contiguous connection between Forest Park and the remainder of the West Hills rural area and potential isolation of Forest Park and the habitat in the Coast Range for terrestrial species.

There could be significant degradation to Burlington Bottoms, a mitigation project for wildlife habitat already lost to dam construction. It is one of the state's largest remaining wapato wetlands and the 3rd highest ranking wildlife habitat of all Goal 5 wetlands in Multnomah County.

Mining would result in permanent changes to the landform which would have negative aesthetic impacts for the scenic backdrop to Sauvie Island unless an appropriate reclamation plan is approved and implemented by DOGAMI.

Runoff from mining wcould cause a significant reduction in water resources and water quality unless DEQ standards for water discharge quality are met..

d. Energy Effects

i. Energy Effect on Use of the Aggregate Resource if Conflicting Uses are Fully Allowed

- Residential and conflicting Community Service Uses

There is no identified energy effect on the aggregate resource if residences and conflicting community service uses are fully allowed.

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

There is no identified energy effect on the aggregate resource if conservation practices are fully allowed within the impact area.

- Forest operations or forest practices on the resource site

There would be less energy expended for aggregate production on this site if forestry uses are fully allowed since the energy expended to harvest the forest resource is less than that of extracting the mineral resource.

- West Hills Scenic Area

If scenic resources are fully allowed, no mining expansion would occur. The energy effect of that would be to reduce the amount of energy expended for extraction activities at this site.

- West Hills Wildlife Habitat Area

There would be less energy expended for aggregate production on this site due to reduced expansion potential if the wildlife habitat use is fully allowed.

- Water Resource and Wetland Sites

Since it is a protected 3-C Goal 5 resource, the Rafton/Burlington Bottoms wetland area must be protected by limiting conflicting uses. Any expanded aggregate production, therefore, must minimize conflict with that use. The energy effect on the aggregate use could be either positive or negative depending on whether the conflict resolution was to limit extraction activity, or to impose additional water control and treatment measures. Full preservation of the essential corridors associated with North Angell Brothers Creek would reduce energy consumed by the aggregate use due to a reduction in mineable area.

ii. Energy Effect on Conflicting Uses if Development of the Resource is Allowed

- Residential and conflicting Community Service Uses

There would be a reduction of the energy expended in delivering aggregate products for residential and conflicting community service uses within the impact area due to reduced delivery distance if expansion of the mining activity is allowed.

- Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

There is no identified energy effect on conservation uses within the impact area if expansion of the mining activity is allowed.

- Forest operations or forest practices on the resource site

There would be no short-term forest operations on the site if mining expansion occurred; therefore, there would be no energy effect during the period of mining. There would possibly be an increase in energy consumption relative to forest management of the site in the long-term as a result of the added management requirement of reclamation.

- West Hills Scenic Area, Wildlife Habitat Area, and Water Resource and Wetland Sites

There would be no energy effect on scenic areas, wildlife habitat areas, or water resource and wetland sites within the impact area if expansion of the mining activity is allowed.

e. Other Applicable Statewide Planning Goals

The following additional Statewide Planning Goals have been found to apply to the ESEE analysis of the Angell Brothers resource site (Final Order PR 7–92 § 16, 26, 27, 28 and 29).

i. Goal 4–Forest Lands

The Forest Goal and Rule designate mining and processing of mineral and aggregate resources as locationally dependent uses. Such uses may be allowed when it is found that:

- The proposed use will not force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands;

- The proposed use will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression

personnel; and

- A written statement recorded with the deed or written contract with the county or its equivalent is obtained from the land owner which recognizes the rights of adjacent and nearby land owners to conduct forest operations consistent with the Forest Practices Act and Rules for uses authorized in OAR 660-06-025(4)(e), (l), (r), (s) and (v).

There is no indication that expanded mining at this site would force a significant change in, or significantly increase the cost of, accepted farming or forest practices on agriculture or forest lands. Several properties surrounding the existing operation are used for primary resource production without recorded adverse impact. An expanded operation should similarly have no impact. Also, there is no indication that an expanded mining operation would increase fire hazard or the costs and risks associated with fire suppression.

The third Rule criteria is not applicable to aggregate resources. It applies only to parks and campgrounds, reservoirs and water impoundments, home occupations, health hardship mobile homes, and temporarily occupied accommodations for fishing.

ii. Goal 6–Air, Water and Land Resources

Goal 6 requires "All waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules or standards." The existing operation, after a period of non-compliance, is now in full compliance with applicable state and federal regulations.

iii. Goal 7–Areas Subject to Natural Disasters and Hazards

Goal 7 requires "Developments subject to damage or that could result in loss of life shall not be planned nor located in known areas of natural disasters and hazards without appropriate safeguards." The majority of this resource site has been identified as having slope hazard potential (Shannon & Wilson, 1978) and the conduct of a mining operation is defined in the Statewide Planning Goals as a development. The existing operation is conducted in compliance with all applicable mine safety regulations. Any expansion would also be required to comply with those safety regulations.

iv. Goal 15–Willamette River Greenway

While none of the resource site is within the Willamette River Greenway, that portion of the impact area east of US Highway 30 is within the Greenway. An expanded operation should be conducted in a manner that conserves the scenic quality of lands within the Greenway.

5. RESOURCE ANALYSIS SUMMARY

a. General Conclusions

i. The preceding Section A Significance Determination confirmed that the Angell Brothers site is a significant Goal 5 resource.

ii. The discussion in Section B Resource Analysis identifies several conflicts between expansion of an aggregate production operation on this resource site and identified conflicting uses within a 1,200 foot impact area surrounding the resource site.

iii. The list of land uses under the heading of allowed uses not applicable to the analysis" (section B.3.a.) are determined to not conflict with protection (for extraction) of the aggregate resource.

iv. The list of conflicting uses that are described as "allowed uses that may conflict, but are unlikely to occur" (section B.3.c.) should not be included in the list of allowed uses in the mapped impact that may be made part of any subsequent aggregate resource protection program; thereby, assuring that there will be no conflict.

v. Within the impact area there is an inventoried significant Goal 5 stream and a 3–C wetland that are found to be potential conflicts with the aggregate resource.

vi. Within the impact area there are Goal 5 scenic resources that are found to be potential conflicts with the aggregate resource.

vii. Within the impact area there are Goal 5 wildlife habitat resources that are found to be potential conflicts with the aggregate resource.

viii. Within the impact area there are residential, forest and conservation uses that are found to be potential conflicts with the aggregate resource.

ix. For the area of the aggregate resource site subject to any future Oregon Department of Geology and Mineral Industries (DOGAMI) operational permit, Multnomah County deems Oregon Department of Environmental Quality (DEQ) standards for noise levels, air quality, and water quality to be appropriate to protect the health, safety and welfare of citizens and to be appropriate to protect the land and water resources within the impact area. The County requests participation by DEQ and the Oregon Department of Fish and Wildlife in the review of any new DOGAMI operational mining permit at this site.

b. Synopsis of ESEE Consequences

i. Residential

Consequences if Residential Uses are not allowed (in impact area)

Economic: Lower property values; protection of aggregate resource
Social: Loss of opportunity for rural homesites and lifestyle; takings issue
Environmental: Insignificant
Energy: Insignificant

Consequences if Residential Uses are allowed in a limited manner (in impact area)

Economic: Development standards may require homebuilder to mitigate conflicts with potential mining operation
Social: Development standards may limit location of residence on property; potential additional complaints of mining operation
Environmental: Insignificant
Energy: Increased energy consumption in home construction to provide mitigating measures from mining

Consequences if Residential Uses are allowed fully (in impact area)

Economic: Retention of property values; possible modification of mineable area and/or operational methods
Social: More opportunity for rural homesites and lifestyle; increase in complaints regarding aspects of mining operation
Environmental: New homes could be located in a manner that could place an aggregate operation in violation of DEQ environmental standards
Energy: Insignificant

ii. Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources

Consequences if Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources are not allowed

Economic: Reduction of mining operation expense
Social: Loss of habitat and passive recreation opportunities
Environmental: Reduction of environmental quality and habitat within impact area
Energy: Reduction of energy expended for environmental quality control measures

Consequences if Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources are allowed in a limited manner

Economic: No increase over existing mining expense for environmental quality control measures; reduction of possible expansion areas
Social: Provision of passive recreation opportunities
Environmental: Maintenance of resource quality and habitat areas
Energy: No increase over existing energy expended for environmental quality control measures

Consequences if Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources are allowed fully

Economic: No, or slight, increase over existing mining expense for environmental quality control measures; reduction of possible expansion areas
Social: Provision of passive recreation opportunities
Environmental: Maintenance of resource quality and habitat areas
Energy: No increase over existing energy expended for environmental quality control measures

iii. Forest Operations or Forest Practices on the Resource Site

Consequences if Forest Operations or Forest Practices are not allowed

Economic: Loss of the value of the forest products
Social: Production of mineral instead of wood construction material
Environmental: Loss of forest resource
Energy: No energy expended to reclaim site for forestry purposes

Consequences if Forest Operations or Forest Practices are allowed in a limited manner

Economic: Increased mine operation expense for reclamation for forest purposes; full realization of the income potential of the primary resources of the site
Social: Production of both wood fiber and aggregate material
Environmental: Incremental modification of the topography and reclamation for forest purposes
Energy: Increased energy used for reclamation of site for forest use

Consequences if Forest Operations or Forest Practices are allowed fully

Economic: Retention of the value of the forest products; loss of utilization of the mineral resource
Social: Production of wood fiber vs aggregate material
Environmental: Retention of existing forest resource base
Energy: No energy expended for mineral production at this site, but probable transfer of energy expenditure to an alternative site; less energy expended for forestry than mining

iv. West Hills Scenic Area

Consequences if West Hills Scenic Area is not allowed

Economic: No operational expenses for buffering, screening or phasing
Social: Loss of aesthetic enjoyment
Environmental: Loss of the scenic environment
Energy: Increased energy cost for individuals to drive further to other recreation sites.

Consequences if West Hills Scenic Area is allowed in a limited manner

Economic: Increased operational expenses for buffering, screening and phasing
Social: Increased availability of aggregate material
Environmental: Modification of this portion of the viewshed over time
Energy: Increased energy expenditure for buffering, screening and phasing

Consequences if West Hills Scenic Area is allowed fully

Economic: Loss of the value of the aggregate material
Social: Retention of aesthetic enjoyment; limitation of the availability of aggregate material
Environmental: Retention of existing natural environment
Energy: No energy expended for mineral production at this site, but probable transfer of energy expenditure to an alternative site

v. West Hills Wildlife Habitat Area

Consequences if West Hills Wildlife Habitat Area is not allowed

Economic: Full utilization of the aggregate resource, reduction in quality of life
Social: Loss of educational and recreational activities
Environmental: Loss of habitat area; isolation of Forest Park species
Energy: None identified

Consequences if West Hills Wildlife Habitat Area is allowed in a limited manner

Economic: Increased operational expenses resulting from reclamation; reduction of supply due to limitation of expansion areas
Social: Continued wildlife migration; provision of a necessary construction material
Environmental: Retention of habitat area necessary for migration and modification of habitat in mined areas
Energy: Insignificant

Consequences if West Hills Wildlife Habitat Area is allowed fully

Economic: Loss of potential expansion area
Social: Retention of existing educational and recreational activities
Environmental: Retention of all existing habitat areas
Energy: Reduction of energy expended for aggregate production at this site

vi. West Hills Water Resource and Wetland Sites Area

Consequences if Water Resource and Wetland Sites are not allowed

Economic: Reduction of mining operation expenses
Social: Loss of educational and recreational activities and aesthetic quality
Environmental: Reduction of water resources and water quality
Energy: Reduction of energy expended for water quality control

Consequences if Water Resource and Wetland Sites are allowed in a limited manner

Economic: Increased mining operation expense to protect water quality and to avoid water resource areas
Social: Provision of aggregate material within the limitation of environmental quality control standards
Environmental: Retention of existing level of water quality
Energy: Increased energy expended for water quality control

Consequences if Water Resource and Wetland Sites are allowed fully

Economic: Increased mining operation expense to protect water quality and to avoid water resource areas
Social: Retention of existing educational and recreational activities and aesthetic quality
Environmental: Retention of existing level of water quality
Energy: Increased energy expended for water quality control

CHAPTER VI
RECONCILIATION

TABLE OF CONTENTS

		page
A.	INTRODUCTION	VI–3
B.	CONFLICT RESOLUTION	VI–4
1.	Forestry	VI–5
2.	Agriculture	VI–7
3.	Community Service and Conditional Uses	VI–9
4.	Uses to conserve soil, air and water quality and provide for wildlife and fisheries resources	VI–11
5.	Residences	VI–12
6.	Transportation/Public Improvements	VI–13
7.	Mining	VI–14
C.	RESOURCE PROTECTION	VI–17
1.	Scenic Views	VI–17
2.	Streams	VI–19
3.	Angell Brother's Aggregate Site	VI–20
4.	Wildlife Habitat	VI–23
5.	Summary	VI–25

A. INTRODUCTION

Preceding chapters have determined that scenic views, streams, wildlife habitat and the Angell Brother's aggregate site are significant Goal 5 resources in the West Hills. Uses that would conflict with each resource were identified, as follows:

Scenic
Forestry
Community service and
Conditional Uses
Residences
Mining

Wildlife
Forestry
Agriculture
Residences
Mining

Streams
Forestry
Agriculture
Community Service and
Conditional Uses
Residences
Transportation/Public Improvements
Mining

Angell Brother's Aggregate
Forestry
Uses to conserve soil, air & water
quality & wildlife & fisheries resources
Residences
Scenic resources
Wildlife resource
Streams resources

Previous chapters identified the economic, social, environmental and energy (ESEE) consequences that allowing conflicting uses would have on the significant resources, and the consequences if the conflicting uses were not allowed. Decisions to allow, not allow, or limit conflicting uses must be based on this analysis of ESEE consequences. However, each of the significant resources does not stand alone. The impact areas of the resources overlap in many areas. For example, both the Angell Brother's aggregate site and portions of significant streams lie within the scenic area, which itself lies within the significant wildlife habitat area. Consequently, decisions about whether to allow fully, not allow, or allow conflicting uses in a limited manner must consider the results of the resource analysis for the other significant resources, and reconcile any differences. For example, if the results of the ESEE analysis of forestry showed that forestry should not be allowed in the scenic area, but should be allowed in the other resource areas, these different conclusions would have to be reconciled.

Section B of this chapter will examine the previously identified ESEE consequences for each conflicting use and reconcile any differences to reach a conclusion as to whether that particular use should be allowed, not allowed, or allowed in a limited manner. Section C will than reach a determination as to whether each significant resource should be fully protected by not allowing conflicting uses (designate "3-A"), not protected because conflicting uses are of such importance that they should be allowed fully (designate "3-B"), or protected by allowing conflicting uses in a limited manner (designate "3-C").

B. CONFLICT RESOLUTION

OAR 660-16-010: Based on the determination of the economic, social, environmental and energy consequences, a jurisdiction must "develop a program to achieve the Goal". Assuming there is adequate information on the location, quality, and quantity of the resource site as well as on the nature of the conflicting use and ESEE consequences, a a jurisdiction is expected to "resolve" conflicts with specific sites in any of the following three ways listed below....

(1) Protect the Resource Site: Based on the analysis of the ESEE consequences, a jurisdiction may determine that the resource site is of such importance, relative to the conflicting uses, and the ESEE consequences of allowing conflicting uses are so great that the resource site should be protected and all conflicting uses prohibited on the site and possibly within the impact area identified in OAR 660-16-000(5)(c). Reasons which support this decision must be presented in the comprehensive plan, and plan and zone designations must be consistent with this decision.

(2) Allow Conflicting Uses Fully: Based on the analysis of ESEE consequences and other Statewide Goals, a jurisdiction may determine that the conflicting use should be allowed fully, not withstanding the possible impacts on the resource site. This approach may be used when the conflicting use for a particular site is of sufficient importance, relative to the resource site. Reasons which support this decision must be presented in the comprehensive plan, and plan and zone designations must be consistent with this decision.

(3) Limit Conflicting Uses: Based on the analysis of ESEE consequences, a jurisdiction may determine that both the resource site and the conflicting use are important relative to each other, and that the ESEE consequences should be balanced so as to allow the conflicting use but in a limited way so as to protect the resource site to some desired extent. To implement this decision, the jurisdiction must designate with certainty what uses and activities are allowed fully, what uses and activities are not allowed at all and which uses are allowed conditionally, and what specific standards or limitations are placed on the permitted and conditional uses and activities for each resource site. Whatever mechanisms are used, they must be specific enough so that affected property owners are able to determine what uses and activities are allowed, not allowed, or allowed conditionally and under what clear and objective conditions or standards. Reasons which support this decision must be presented in the comprehensive plan, and plan and zone designations must be consistent with this decision.

The "goal to be achieved", according to Goal 5, is protection of significant resources for future generations. This does not simply mean that a use which adversely impacts the resource should not be allowed if the ESEE analysis has shown that protection is more important than the conflicting use (a "3-A" designation). The conflict resolution process should also take into consideration whether adverse impacts can be mitigated. If mitigation is possible, the appropriate designation is "3-C", and clear and objective standards should be adopted which will allow the conflicting use in a manner that also protects the resource. If the use of development standards would resolve conflicts by both allowing the use and protecting the resource, then the appropriate Goal 5 level of protection is "3-C", limit conflicting uses.

The following subsections re-examine the previously identified ESEE consequences of the conflicting use, resolve any conflicts, and reach a conclusion as to whether that conflicting use should be allowed, not allowed, or allowed in a limited manner.

1. Forestry

Forestry activities have been identified as a conflicting use in all four resource impact areas. A synopsis of the identified ESEE consequences is as follows:

Consequences if Forestry is not allowed
Economic: Loss of jobs, taxes, and revenue from sales; increased transport costs, regulatory burden
Social: End to resource-based lifestyle/heritage for some families; reduced property rights;
Environmental: Older, less productive forest, possibility of disease and infestation
Energy: Possibility of greater energy expenditure to import/transport materials and wood products, shortage of goods; greater energy used for mining
Goal 4: County cannot prohibit forest practices

Consequences if Forestry is allowed in a limited manner
Economic: Possible loss of some jobs, taxes, and revenue from sales; regulatory burden
Social: Reduced property rights, impact on "timber" lifestyle, reduced local sources for timber
Environmental: No impacts
Energy: Some increase in energy use for transporting materials to market, shortage of goods
Goal 4: County cannot limit or regulate forest practices

Consequences to Scenic Resource if Forestry is allowed fully
Economic: Loss of indirect benefits related to quality of life
Social: Loss of aesthetic enjoyment
Environmental: Less protection of fish and wildlife habitat, water and air quality
Energy: No impact

Consequences to Streams if Forestry is allowed fully
Economic: Reduced water quality for use, change in water quantity for use
Social: Loss of flood storage capacity
Environmental: Loss of riparian vegetation, reduced water quality
Energy: Decreased water flow for energy use

Consequences to Wildlife Habitat Area if Forestry is allowed fully
Economic: Loss of indirect benefits related to quality of life and tourism
Social: Loss of educational and passive recreational opportunities
Environmental: Numerous negative impacts from habitat loss and diminishment
Energy: Insignificant

Consequences to Angell Brothers if Forestry is allowed fully
Economic: Loss of jobs, taxes and revenue from aggregate sales if forestry supercedes mining
Social: Loss of construction material if forestry supercedes mining
Environmental: No impact
Energy: Less energy used for forestry than mining

DISCUSSION: Growing and harvesting trees is a cyclical process, and many of the negative effects caused by logging are temporary in nature - once trees begin to grow the scenic appearance of the site and its usefulness as wildlife habitat and riparian value are regenerated. The impacts to streams, wildlife habitat and scenic resources if forestry is allowed fully are generally environmental and aesthetic in nature, as compared to the economic impacts if forestry activities were not allowed. The impacts to mining if forestry is allowed fully center around whether utilizing the site for forestry would supercede mining. However, since allowing forestry is not the same as requiring forestry to occur on the mineral and aggregate site, a decision to fully allow forestry would cause no major conflicts with the Angell Brother's site.

The Oregon Forest Practices Act contains rules to provide for the overall maintenance of water resources, fish and wildlife. For instance, the rules require maintaining a buffer area along streams and the Highway 30 scenic corridor. Thus the impacts caused by forestry are limited. More importantly, ORS 527.722 restricts the county from prohibiting, limiting or regulating forest practices on forest lands unless an exception to Goal 4 is taken and acknowledged which removes these lands from forest land designation, in which case the county may prohibit, but not regulate, forest practices.

The county could prohibit forest practices on lands zoned RR and MUA, where an exception to Goal 4 has been taken. However, most of these lots are too small to be of commercial value for logging. In addition, the aesthetic value and tax incentives of retaining forested areas on these properties makes much logging unlikely. The expense and effort for the county to set up its own program to regulate forestry practices on exception lands would be great. Consequently, since impacts from allowing forestry on exception lands are minimal, forestry should not be prohibited.

CONCLUSION: The county cannot regulate forestry activities on forest lands. While county action to prohibit forestry activities on forest lands is theoretically possible through the goal exceptions process, such action would be unprecedented in Oregon on forest lands and would be very difficult to justify. On exception lands, forestry activities are unlikely to occur on a scale that would impact significant resources. The conflicting use analysis shows, however, that forest practices, if not carried out in a manner which provides effective buffer areas for streams, can result in significant adverse impacts to streams. While logging causes only a temporary interruption to wildlife habitat, in the long term modification of logging practices to ensure maintenance of some forested cover areas would enhance wildlife habitat values greatly over current forest practices. Similarly, the scenic aspects of the West Hills would be enhanced by more selective logging practices, even if the impacts of clear-cutting are temporary in a long-term sense. Multnomah County

should urge the Oregon Department of Forestry to effectively enforce the Forest Practices Act provisions for protection of fish and wildlife habitat in the West Hills, and work with the Department of Forestry to craft new rules, if necessary, which better protect significant scenic views, wildlife habitat, and streams in the West Hills.

2. Agriculture

Identified as a conflict to wildlife habitat and streams. The synopsis of ESEE consequences is as follows:

Consequences if Agriculture is not allowed
Economic: Loss of economic value, loss of farm products to Portland area,lost jobs, reduced tax revenues, regulatory burden
Social: Loss of aesthetically pleasing open space, loss of farming lifestyles, reduced property rights, reduced local sources of farm products
Environmental: Transferring environmental impacts to another site.
Energy: Increase in costs to bring more distant farm products to market, shortage of goods

Consequences if Agriculture is allowed in a limited manner
Economic: Some loss of economic value and nearby farm products, regulatory burden, potential for loss of jobs and tax revenues
Social: Loss of aesthetically pleasing open space, burden of regulation, reduced farm lifestyle, reduced local sources of farm products
Environmental: Transfer of some environmental impacts to another site
Energy: Marginal increase in costs to bring distant farm products to market, shortage of goods

Consequences to Wildlife Habitat if Agriculture is allowed fully
Economic: Loss of indirect benefits related to quality of life and tourism
Social: Loss of educational and passive recreational opportunities
Environmental: Numerous negative impacts from habitat loss & diminishment
Energy: Insignificant

Consequences to Streams if Agriculture is allowed fully:
Economic: Reduced water quality for use, change in water quantity for use
Social: Insignificant
Environmental: Loss of riparian vegetation, reduced water quality, greater wildlife disturbance
Energy: Decreased water flow for energy use

DISCUSSION: The analysis for significant streams (Chapter III) identifies specific conflicts with agricultural activities only in certain West Hills streams — other stream impact areas have no soils which are suitable for agricultural activities. The analysis for significant wildlife habitat identifies conflicts with agriculture primarily in "secondary" habitat areas, and "impacted" habitat areas so designated because existing agricultural activities make

the area less desirable as wildlife habitat when compared to the forested "primary" habitat areas. Soils in the "primary" habitat areas make agricultural activities generally infeasible. So agriculture is not a major threat to wildlife habitat in the West Hills. However some agricultural practices, such as misuse of pesticides, degradation of stream quality, and removal of riparian vegetation, do have negative consequences upon both streams and wildlife habitat.

Regulation and restriction of agricultural activities to protect Goal 5 natural resources is theoretically possible for Multnomah County.

ORS 215.253 states: No State Agency, City, County, or Political Subdivision of this state may exercise any of its powers to enact local laws or ordinances or impose restrictions or regulations affecting any farm use land situated within an exclusive farm use zone established under ORS 215.203 ...in a manner which would unreasonably restrict or regulate farm structures or that would unreasonably restrict or regulate accepted farming practices because of noise, dust, odor, or other materials carried in the air or other conditions arising therefrom... ..."Accepted Farming Practice" as used in this subsection shall have the meaning set out in ORS 215.203.

Nothing in this section is intended to limit or restrict the lawful exercise by any state agency, city, county or political subdivision of its power to protect the health, safety, and welfare of the citizens of this state.

As this language seems to indicate, regulation of agricultural activities by Multnomah County is feasible under state law.

However, it is not desirable or necessary for the County to institute a regulations for agricultural activities or practices, for the following reasons:

1. Agricultural activities and practices have been demonstrated to be marginal in their negative impact upon the primary wildlife habitat areas identified in the Resource Analysis Report.

2. Areas where agricultural activities would have a more significant impact upon wildlife habitat have soil types unsuitable to agriculture, and thus are unlikely to be cleared for such use.

3. Because of steep topography and poor soil conditions, many West Hills streams will likewise not be impacted by agricultural activities and practices.

4. Regulation of agricultural activities and practices would require a major effort by Multnomah County in order to study and adopt appropriate regulatory mechanisms and would require significant expenditure in order to enforce them.

5. Measures to protect streams and associated wildlife habitat areas are already practiced by many farmers, and are considered to be beneficial not only to the natural resources involved, but also to the agricultural activity or practice.

6. The U.S. Soil and Water Conservation Service and the West Multnomah Soil and Water Conservation District have as one of their primary missions the promotion of sound agricultural practices which protect streams and associated wildlife habitat areas from degradation due to agricultural activities and practices.

7. Multnomah County is part of a program to educate farmers in measures which will maintain and improve water quality within the Tualatin River Basin as per Department of Environmental Quality mandates.

CONCLUSION: For the reasons listed above, Multnomah County should not institute a regulatory scheme for agricultural activities. As an alternative, Multnomah County should work cooperatively with the U.S. Soil Conservation Service and the West Multnomah Soil and Water Conservation District to promote agricultural practices which protect streams and associated wildlife habitat. Joint programs should promote the following measures:

- Fencing could be limited in uncultivated areas along roadways, thus reducing barriers to wildlife movement.

- Fencing should be used to keep domestic livestock from degrading streams and adjacent riparian habitat. Design standards for fences could be used which ensure that fences do not block passage for a wide range of wildlife species.

- Application of fertilizers and pesticides could be limited, especially outside of cultivated farming areas.

- Uncultivated riparian "buffer" areas should be maintained along streams in order to maintain fish and wildlife habitat values and maintain water quality.

3. Community Service and Conditional Uses

Community service and conditional uses have been identified as uses that would conflict with the scenic area and streams. The identified ESEE impacts are:

<u>Consequences if CS and Conditional Uses are not allowed</u>
Economic: No new jobs/income/taxes, possible increased costs to develop elsewhere
Social: No new provider of local goods and other services
Environmental: No opportunity for potential benefits provided by environmental protection facilities; transfer of impacts to another site
Energy: Continuing energy used for transportation to obtain goods, services and employment outside area

Goal 9: Decreased opportunity for local economic development

Consequences if CS and Conditional Uses are allowed in a limited manner
Economic: Regulatory burden, changes in customary practices; less exposure to Highway 30 could reduce commercial business
Social: Reduced availability of amenities
Environmental: Possible impacts related to siting
Energy: Insignificant
Goal 9: Compatible with Goal

Consequences to Scenic Resource if CS and Conditional Uses are allowed fully
Economic: Loss of indirect benefits related to quality of life
Social: Loss of aesthetic enjoyment
Environmental: Less protection of fish and wildlife habitat, water and air quality
Energy: No impact

Consequences to Streams if CS and Conditional Uses are allowed fully
Economic: Insignificant
Social: Insignificant
Environmental: Deterioration of water quality, increased disturbance of wildlife
Energy: Decreased water flow for energy use

DISCUSSION: There are a variety of community service, conditional uses and other uses that, if allowed, could conflict with preservation of streams and scenic values. Within this category are commercial businesses, churches, schools, solid waste facilities, forest processing operations, and transmission towers, to name a few. The likelihood of these uses being approved is unknown, but the total number is limited due to restrictive CFU zoning and a lack of public services such as water and sewer.

The greatest potential for new commercial or industrial uses is in Burlington and in a small area along Highway 30 just south of Scappoose. Both these areas already contain commercial development, so scenic value is compromised. Both areas also are visible from only one key viewing area - Highway 30 - and are seen only briefly as travellers pass by. Jones Creek and Joy Creek flow through the Scappoose area, so would potentially be impacted by the location of new uses. "Burlington" Creek is along the southern edge of the platted Burlington community, so would not be impacted by new uses in the area.

If allowed fully, community service and conditional uses could have negative effects to stream quality, quantity and associated habitat, and contribute to a loss of aesthetic enjoyment of scenic views. If the uses were not allowed, there would be less availability of social and environmental benefits provided by some uses, and economic and energy costs to area residents to travel elsewhere to obtain the amenities provided by these services.

If the uses are allowed, but in a limited manner that requires location away from stream corridors and siting in a manner that reduces visibility from key viewing areas, the impacts to the significant resources will be minimal.

CONCLUSION: In Burlington, community service and conditional uses should be allowed fully (subject to other zoning requirements for approval). In all other areas, uses should be allowed in a limited manner by requiring the use to meet siting standards that reduce visibility of the use from key viewing areas and prevent removal of vegetation and runoff into stream corridors.

4. Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources

Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources has been identified as a possible conflicting use only within the Angell Brothers mineral and aggregate impact area. A synopsis of the identified ESEE consequences between mining and those uses is as follows:

Consequences if Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources are not allowed
Economic: Reduction of mining operation expense
Social: Loss of habitat and passive recreation opportunities
Environmental: Reduction of environmental quality and habitat within impact area
Energy: Reduction of energy expended for environmental quality control measures

Consequences if Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources are allowed in a limited manner
Economic: No increase over existing mining expense for environmental quality control measures; reduction of possible expansion areas
Social: Provision of passive recreation opportunities
Environmental: Maintenance of resource quality and habitat areas
Energy: No increase over existing energy expended for environmental quality control measures

Consequences if Uses to Conserve Soil, Air and Water Quality and to Provide for Wildlife and Fisheries Resources are allowed fully
Economic: No, or slight, increase over existing mining expense for environmental quality control measures; reduction of possible expansion areas
Social: Provision of passive recreation opportunities
Environmental: Maintenance of resource quality and habitat areas
Energy: No increase over existing energy expended for environmental quality control measures

Discussion: Any mining must be conducted under appropriate DEQ and DOGAMI operating permits that insure acceptable levels of air and water quality and provide for bank stabilization, erosion control and reclamation. The benefits of allowing uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources on surrounding properties within the impact area outweigh the burden on a mine operator of any additional regu-

lations that might be placed on aggregate mining.

Conclusion: Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources should be allowed without limitation throughout the impact area of the Angell Brothers resource site.

5. Residential Use

Identified as a conflict to Wildlife Habitat, Streams, Scenic Views and Sites, and Mining (Angell Brothers quarry). The synopsis of ESEE consequences is as follows:

Consequences if Residential Uses are not allowed:
Economic: Lower property value, less tax revenue, protection of aggregate resource
Social: Reduced availability of amenities, "takings" issue, loss to individuals of opportunity for "rural" lifestyle
Environmental: Transferring environmental impacts to another site.
Energy: Greater distance between destinations, increased cost of infrastructure

Consequences if Residential Uses are allowed in a limited manner:
Economic: Partial loss of property value, regulatory burden, changes in customary practices
Social: Regulatory burden, diminishment of rural uses which conflict with wildlife, reduced availability of amenities, additional complaints about mining operation impacts
Environmental: Possible increase in erosion, drainage problems and fire hazards, possible transferring environmental impacts to another site
Energy: Increased energy consumption in home construction to mitigate mining impacts

Consequences to Wildlife Habitat if Residential Uses are allowed fully
Economic: Loss of indirect benefits related to quality of life and tourism
Social: Loss of educational and passive recreational opportunities
Environmental: Numerous negative impacts from habitat loss & diminishment
Energy: Insignificant

Consequences to Streams if Residential Uses are fully allowed:
Economic: Insignificant
Social: Insignificant
Environmental: Loss of riparian vegetation, loss of water quality, more disturbance of wildlife
Energy: Decreased water flow for energy use

Consequences to Scenic Views if Residential Uses are fully allowed:
Economic: Loss of indirect benefits related to quality of life
Social: Loss of aesthetic enjoyment
Environmental: Less protection for fish & wildlife habitat, water & air quality
Social: Insignificant

Consequences to Mineral & Aggregate (Angell Bros.) if Residential Uses are fully allowed (in impact area):
Economic: Retention of property values, possible modification of mineable area and/or operational methods
Social: More opportunity for rural homesites and lifestyle; increase in complaints regarding aspects of mining operation
Environmental: New homes could be located in a manner that could place an aggregate operation in violation of DEQ environmental standards
Energy: Insignificant

DISCUSSION: Residential uses represent a significant potential impact upon wildlife habitat and streams resources because areas of the West Hills where most additional homes at the greatest densities could be built — Rural Residential zoned "exception" lands are in the midst of important wildlife habitat and significant stream areas. Almost all lands within the impact area of scenic views and sites are zoned Commercial Forest Use, and will therefore be built at very low residential densities which will have much less impact on scenic qualities. Likewise, new homes sited on lands zoned Commercial Forest Use will have a lesser impact upon wildlife habitat and streams due to the low densities of development allowed. Also, conflicts between the proposed Angell Brothers Quarry expansion and potential new residential development are fairly small because virtually all land within the proposed quarry's impact area is zoned Commercial Forest Use. It should be noted, however, that the lesser impacts upon Commercial Forest Use lands are the result of strong, controversial statewide restrictions on residential development on rural forest lands — should these restrictions be lessened by future legislative action, the impacts of residential development on forest lands could grow significantly. Animal control requirements — fencing of dogs and "belling" of cats, is not a proper use of zoning powers. More appropriately, Multnomah County should increase enforcement of existing animal control ordinances which require restraining of dogs, and also institute educational programs to educate pet owners as to the negative impacts their domesticated pets can have on wildlife if not properly restrained.

CONCLUSION: Clearly, there would be significant adverse consequences to Goal 5 resources if residential uses were allowed fully, and to property owners and the community if residential uses were prohibited. A balanced approach, which protects the resources while allowing residential development which minimizes impacts upon these resources, is the optimal solution for this issue.

6. Transportation/Public Improvements

Identified as a conflict to streams. The synopsis of ESEE consequences is as follows:

Consequences if Transportation/Public Improvements are not allowed:
Economic: Increased cost of material transport, regulatory burden, changes in practices
Social: Insignificant

Environmental: Insignificant
Energy: Increased energy expenditure on infrastructure

Consequences if Transportation/Public Improvements are allowed in a limited manner:
Economic: Increased cost of material transport, regulatory burden, changes in practices
Social: Insignificant
Environmental: Insignificant
Energy: Increased energy expenditure on infrastructure

Consequences to Streams if Transportation/Public Improvements are fully allowed:
Economic: Insignificant
Social: Loss of education & recreation associated with wildlife habitat
Environmental: Loss of riparian vegetation, loss of water quality, more disturbance of wildlife
Energy: Decreased water flow for energy use

DISCUSSION: Transportation facilities and Public Improvements have the potential to adversely impact significant streams wherever such an existing facility is modified or a new facility is constructed within the riparian zone of the stream. The County has no regulatory authority over logging roads constructed in accordance with the Forest Practices Act, and driveways are more appropriately considered under the category of the development they are proposed to serve (residential, community service, etc.). Although no major proposed public improvements, such as utility extensions, or road widenings were identified in the West Hills, such improvements may be proposed in the future.

Transportation facilities and public improvements which are located within a stream's impact area are too vital in most cases to be prohibited in order to protect the stream. However, such facilities can generally be constructed in a manner which can minimize the impacts to streams.

CONCLUSION: Clearly, there would be significant adverse consequences to Goal 5 resources if transportation facilities and public improvements were allowed fully, and to the community if such uses were prohibited. A balanced approach, which protects the resources while allowing improvements to roads and public facilities which minimizes impacts upon these resources, is the optimal solution for this issue.

7. Mining

Mining has been identified as a conflicting use in the scenic, streams, and wildlife habitat impact areas. A synopsis of the identified ESEE consequences of mining with respect to those other uses is as follows:

Consequences if Mining is not allowed
Economic: Loss of jobs, taxes, and revenue from sales; increased cost to consumers; loss of long-term supplies
Social: Reduced property rights; no more local sources; loss of needed construction mate-

rial; increased impacts on other communities
Environmental: Insignificant
Energy: Increased energy consumption in transporting material and building infrastructure

Consequences if Mining is allowed in a limited manner
Economic: Regulatory burden, taxes, and revenue from sales; possible loss of long-term supply and increased cost
Social: Reduced property rights, reduced local sources; possible increased impacts on other communities; less availability of needed construction material
Environmental: More stringent buffering and reclamation requirements
Energy: Some increase in energy use for transporting materials to market; less use of concrete

Consequences to Scenic Resources if Mining is allowed fully
Economic: Loss of indirect benefits related to quality of life
Social: Loss of aesthetic enjoyment
Environmental: Less protection of fish and wildlife habitat, water and air quality
Energy: Increased energy cost for individuals to drive further to other recreation sites.

Consequences to Streams if Mining is allowed fully
Economic: Insignificant
Social: Insignificant
Environmental: Loss of riparian vegetation, deterioration of water quality
Energy: Insignificant

Consequences to Wildlife Habitat Area if Mining is allowed fully
Economic: Loss of indirect benefits related to quality of life and tourism
Social: Loss of educational and passive recreation opportunities
Environmental: Numerous negative impacts from habitat loss and diminishment
Energy: Insignificant

Discussion: Mining is a conflicting use that potentially could occur at many locations throughout the West Hills. The Angell Brothers site, however, is the only location in the West Hills that has been identified as being a significant mineral and aggregate site. The discussion of mining use conflicts with other identified significant Goal 5 resources, then, will be limited to the Angell Brothers resource site.

Scenic: The scenic resource analysis indicates that mining, like logging, affects the scenic qualities of the West Hills through removal of the vegetative cover and modification of the landform that comprise a portion of the scenic resource. The analysis indicates, however, that it is possible to maintain the scenic qualities of the West Hills Scenic Area is mining is allowed in a limited manner and the site is properly reclaimed after mining. A protection program for the mining resource should include restrictions that would only allow mining expansion in a manner that minimized impacts on the scenic resource both before and after extraction.

Streams and Wetlands: The North Angell Brothers Creek has been found to be a significant stream because of its contribution of water to the Rafton/Burlington Bottoms, its provision of "essential" connections exist between fish and wildlife habitat areas on high quality upstream and low quality downstream portions of the stream, and its canopy cover and riparian vegetation which has a positive impact on water quality.

The Rafton/Burlington Bottoms and the East bank of Multnomah Channel are significant "3–C" resource areas that must continue to be protected by limiting conflicting uses, of which mining is one. Water quantity and quality flowing into Burlington Bottoms from the Angell Brother's quarry site from the "Angell Brother's North" stream must be maintained by the quarry operator pursuant to standards set by the Oregon Department of Environmental Quality. This site has been acquired by the Bonneville Power Administration as partial mitigation for wildlife habitat lost due to construction of the federal hydropower system. Any degradation of Burlington Bottoms will thus reduce the wildlife habitat value of this publicly owned wetland. Multnomah County has an important responsibility to see that degradation of such a regionally important wetland does not take place. Therefore, mining on the Angell Brothers site should not take place within the North Angell Brothers Creek watershed, but instead should be directed into the watersheds of Middle and South Angell Brothers creeks, which are not designated as significant streams and which flow into Multnomah Channel to the south of Burlington Bottoms. Here, the quarry operator has developed mitigation measures to assure that water discharge meets DEQ standards. If this occurs, the mine operator should not adversely affect Multnomah Channel and its adjacent downstream wetlands, such as Burlington Bottoms. The quality of water discharge from these two streams into Multnomah Channel must be enforced by DEQ to DEQ standards for such discharge.

Wildlife Habitat: The wildlife habitat analysis indicates that the existing area of primary forest habitat to the west and south of the existing Angell Brothers site could be significantly diminished by the unmitigated expansion of the quarry, thus attenuating a connection between Forest Park and wildlife habitat areas to the north.

This negative impact can be alleviated, as discussed in the January 30, 1995 communication from the Oregon Department of Fish & Wildlife to the Oregon Department of Land Conservation and Development:

> The impacts (of quarry operations) on wildlife habitat may be reduced through means such as proper site reclamation, sequential reclamation, buffers, etc. Staging of mining operations, in combination with sequential reclamation, can reduce both the size and duration of impacts due to vegetation removal and topographic alteration.

Implementation of these reclamations during the design and approval of the mining operation plan and the reclamation plan can minimize the impacts of mining on wildlife habitat and balance the conflicts between these two Goal 5 resources.

Conclusion: The above discussion indicates that mining is a use that may occur only if conflicts with the scenic, streams and wetlands, and wildlife habitat resources can be bal-

anced. Any new or expanded mining operation in the West Hills should only be allowed under a program that balances conflicts with other Goal 5 resources and all impacted uses.

Expansion of the Angell Brothers quarry site should be allowed except for a 200 meter buffer area along the south and west sides of the property, and except for the North Angell Brothers creek watershed. Quarry operations and reclamation of the quarry site should minimize impacts upon scenic views and wildlife habitat, by 1) maintenance of the natural terrain and vegetation within the buffer area and the North Angell Brothers watershed, and 2) a sequential mining plan which minimizes the amount of disturbed area at any one time during the life of the quarry operation and 3) a reclamation plan which sequentially restores the site to its natural vegetation after quarrying is completed.

C. RESOURCE PROTECTION

1. Scenic Views of the West Hills

a. Designated Level of Protection

The identification of conflicting uses in Chapter II showed that forestry activities, residential use, community service and conditional uses, and mining could all conflict with preservation of the scenic qualities of the West Hills if the use or structure would be visible from a key viewing area. The subsequent ESEE analysis and conflict resolution led to the conclusion that forestry activities should be allowed fully, expansion of the Angell Brother's quarry should not be allowed, and other conflicting uses should be limited in manner through the use of siting, design and screening requirements. The exception would be uses within Burlington, which would be allowed fully since the area is already developed to an extent that it no longer has the same scenic appearance as the rest of the West Hills scenic resource area and is only visible from the Highway 30 key viewing area. Scenic views of the West Hills should be designated "3-C".

b. Uses Which Will Be Allowed Fully (subject to other code requirements)

Agriculture
Forestry
Uses and structures in Burlington
Any other use or structure which would not be visible from a key viewing area

c. Uses Which Will Be Allowed Conditionally (also subject to other code requirements)

Residences
Mining
Any use or structure which is visible from a key viewing area, unless in Burlington

d. Program to Achieve the Goal

The program comprises land use regulations and non-regulatory measures to assure long-term protection of significant scenic views in the West Hills.

Non-Regulatory

• Multnomah County will explore tax incentives or other methods of encouraging conservation easements to protect scenic values.

• Multnomah County will urge and offer to work with the Oregon Department of Forestry to craft Forest Practices Act rules which better protect scenic views in the West Hills.

• Multnomah County accepts, encourages,and will honor to the extent allowed by law, third-party agreements to protect significant scenic views through private sales, dedications, donations, easements, or other use restrictions.

Regulatory

• Multnomah County will require proposed development which is visible from an identified key viewing area to be visually subordinate. Visually subordinate development does not noticeably contrast with the surrounding landscape, as viewed from an identified viewing area. Development that is visually subordinate may be visible, but is not visually dominant in relation to its surroundings.

• Multnomah County shall establish guidelines to attain visual subordinance, which will be used to review any proposed development. These guidelines include: siting of development in a screened area, use of appropriate building materials and colors, restriction on exterior lighting, use of screening vegetation and earth berms, minimization of landform modification, limiting structure heights, keeping building silhouettes below the skyline

• Multnomah County shall require mining within a Goal 5 protected site to comply with standards identified in the Goal 5 protection program to protect scenic views.

• Multnomah County shall require the Angell Brothers expanded quarry site to take the following measures as part of its operation and reclamation plan:

-- Minimization of the area mined at any given time.

-- Demonstration that reclaimed areas are capable of supporting forest vegetation.

-- Simultaneous reclamation along with mining to minimize non-vegetated areas.

-- Screening of the operating face from key viewing areas as much as practicable through techniques such as landscaping, berming, and maintenance of intervening topography.

2. SIGNIFICANT STREAMS

a. Designated Level of Protection

The designated level of protection for the Significant Streams in the West Hills area is 3.C. — Limit Conflicting Uses.

b. Conflicting Uses to be allowed fully

Forestry/timber (however, see discussion under 2.e. below)
Farm Use (however, see discussion under 2.e. below)

c. Conflicting Uses to be allowed conditionally

Community Service/Commercial Uses
Wood Processing(limited, sawmills, etc.)
Wholesale/retail for farm/forest products
Playgrounds, Churches, Schools
Parks/Golf Courses
Dog Kennels
Aircraft Landing Area
Cottage Industries
Rural Service/Commercial
Other Community Service Uses
Transportation/Public Improvements
Residential Uses
Single-family Residential
Farm/Forest Worker Housing
Mining/Geothermal Uses

d. Conflicting Uses not allowed

None

e. Program to achieve the goal

The impact area for the stream study conducted by SRI-Shapiro for Multnomah County is defined by the existence of the riparian zone. However, the riparian zone is not precisely mapped for each of the streams surveyed, and varies from as little as 20 feet to as much as 400 feet in width. Therefore, it does not provide a basis for a precise zoning overlay district line as would be required for the SEC zoning overlay. In addition, the riparian zone definition does not take into account the potential for restoration of areas adjacent to streams which have been removed from the riparian zone by human activity.

The program comprises land use regulations and non-regulatory measures to assure long-term protection of significant streams in the West Hills.

Non-Regulatory

• Multnomah County will explore tax incentives or other methods of encouraging conservation easements to protect significant streams.

• Multnomah County will urge and offer to work with the Oregon Department of Forestry to craft Forest Practices Act rules which better protect significant streams in the West Hills.

• Multnomah County will work cooperatively on joint programs with the U.S. Natural Resources Conservation Service and the West Multnomah Soil and Water Conservation District to promote agricultural practices which protect streams and associated wildlife habitat.

• Multnomah County accepts, encourages,and will honor to the extent allowed by law, third-party agreements to protect significant streams through private sales, dedications, donations, easements, or other use restrictions.

• Multnomah County will rely on state agency administration of state regulations that affect protection of significant streams in the West Hills, and will review and comment on state agencies' programs affecting protection of significant streams in the West Hills.

Regulatory

• Multnomah County will promulgate specific measures for protection of streams within a 600-foot wide SEC-overlay zone centered on the centerline of each significant stream. This distance is justified by the Washington State Department of Ecology study entitled Wetland Buffers, Use and Effectiveness An SEC-overlay zoning boundary of 600 feet in width (300 feet from centerline of each significant stream) would include the riparian zones for each of these streams (maximum width 400 feet). Although the most appropriate measure of the 300 foot width would be from the bank of the stream, the significant streams identified in the West Hills are not wide enough so that the more easy and definable measure from stream centerline cannot be used as an adequate substitute for a measurement from streambank.

• Multnomah County will only allow development within the 600-foot buffer zone which will enhance the overall functional characteristics of the stream, as documented by a Mitigation Plan.

• Multnomah County will enforce design specifications for development within the 600-foot buffer zone which regulate stream crossings, storm water management, exterior lighting, and soil disturbance

3. ANGELL BROTHERS AGGREGATE

a. Designated Level of Protection: The 114 acre currently approved for mining should remain a "3–C" designation, and the remainder of the resource site is also designated "3-C". The following limitations apply with respect to the "3–C" area:

b. Uses Fully Allowed – The following uses should be allowed fully in the impact area:

Uses to conserve soil, air and water quality and to provide for wildlife and fisheries resources

Exploration for mineral and aggregate resources as defined in ORS Chapter 517

Widening of roads within existing rights-of-way in conformance with the transportation element of acknowledged comprehensive plans including public road and highway projects as described in ORS 215.213(1)(m) through (p) and ORS 215.283(1)(k) through (n)

Exploration for and production of geothermal, gas, oil, and other associated hydrocarbons, including the placement and operation of compressors, separators and other customary production equipment for an individual well adjacent to the well head

Mining and processing of oil, gas, or other subsurface resources as defined in ORS Chapter 520, and not otherwise permitted under OAR 660-06-025(3)(m) (e.g., compressors, separators and storage serving multiple wells), and mining and processing of aggregate and mineral resources as defined in ORS Chapter 517

Temporary asphalt and concrete batch plants as accessory uses to specific highway projects

Public road and highway projects as described in ORS 215.(1,(2)(q) through (s), 215.213(10), 215.283(2)(p) through (r) and 215.283(3)

Forest operations or forest practices including, but not limited to, reforestation of forest land, road construction and maintenance, harvesting of a forest tree species, application of chemicals, and disposal of slash (on properties within the impact area other than the site itself)

Temporary on-site structures which are auxiliary to and used during the term of a particular forest operation (on properties within the impact area other than the site itself)

Physical alterations to the land auxiliary to forest practices including, but not limited to, those made for purposes of exploration, mining, commercial gravel extraction and processing, landfills, dams, reservoirs, road construction or recreational facilities (on properties within the impact area other than the site itself)

Farm use as defined in ORS 215.203

Local distribution lines (e.g., electric, telephone, natural gas) and accessory equipment (e.g., electric distribution transformers, poles, meter cabinets, terminal boxes, pedestals), or equipment which provides service hookups, including water service hookups

New electric transmission lines with right of way widths of up to 100 feet as specified in ORS 772.210. New distribution lines (e.g., gas, oil, geothermal) with rights-of-way 50 feet or less in width

Temporary portable facility for the primary processing of forest products

Towers and fire stations for forest fire protection

Water intake facilities, canals and distribution lines for farm irrigation and ponds

Uninhabitable structures accessory to fish and wildlife enhancement

Permanent facility for the primary processing of forest products

Permanent logging equipment repair and storage

Log scaling and weigh stations

Disposal site for solid waste that has been ordered established by the Environmental Quality Commission under ORS 459.049, together with the equipment, facilities or

buildings necessary for its operation
Disposal site for solid waste approved by the governing body of a city or county or both and for which the Oregon Department of Environmental Quality has granted a permit under ORS 459.245, together with equipment, facilities or buildings necessary for its operation
Television, microwave and radio communication facilities and transmission towers
Fire stations for rural fire protection
Utility facilities for the purpose of generating power
Aids to navigation and aviation
Cemeteries
All permitted uses within the Multiple Use Agriculture zoning district (MUA-20) not listed above.

c. Uses Conditionally Allowed – The following uses should be allowed conditionally in the impact area:

Forestland dwellings
Alteration, restoration or replacement of a lawfully established dwelling
A mobile home in conjunction with an existing dwelling as a temporary use for the term of a hardship suffered by the existing resident or a relative
All conditional uses within the Multiple Use Agriculture zoning district (MUA-20) not listed above.

d. Uses Not Allowed – The following uses should not be allowed in the impact area:

Destination resorts reviewed and approved pursuant to ORS 197.435 to ORS 197.465 and Goal 8
Residential on the resource site
Temporary forest labor camps
Caretaker residences for public parks and fish hatcheries
Private seasonal accommodations for fee hunting operations
Private accommodations for fishing occupied on a temporary basis
Water intake facilities, related treatment facilities, pumping stations, and distribution lines
Reservoirs and water impoundments
Forest management research and experimentation facilities accessory to forest operations
Private hunting and fishing operations without any lodging accommodations
Parks and campgrounds

e. Program to Achieve the Goal

Principal parties to the dispute surrounding development of the Angell Brothers quarry elected to pursue a structured mediation, which resulted in settlement terms being embodied in a Conservation Easement between Angell Brothers (the mining operator), Linnton Rock Corporation (the land owner of the Angell Brothers site), and Friends of Forest Park (the lead environmental group). Under the terms of the Conservation Easement, Angell Brothers agreed to mine only in particular areas, to give Conservation Easements in perpetuity to the

Friends of Forest Park in areas called Preserves, and not to mine in a scenic buffer area of approximately 73 acres on the northern end of the site bordering Highway 30. At the conclusion of mining and reclamation, Angell Brothers will place the entire 397 acre site in a conservation easement. The Preserves include a large area of approximately 90 acres on the north of the site, a 625-foot strip on the south of the site, and an area on the west of the site that encompasses the North Angell Brothers stream drainage. Angell Brothers has also amended its agency permit applications, in accordance with the terms of the Easement. Angell Brothers has also agreed to convey a Hiking Trail Easement across the site upon the conclusion of mining, and has further agreed to promote and maintain Western Oregon old growth conditions on all of the Preserves and all of the scenic buffer area in perpetuity. Angell Brothers has also agreed not to allow any residences to be constructed on any portion of the property. The easements will be signed by all parties and deposited in an escrow with instructions to record the easements, if and when all agency permits in connection with the Angell Brothers mining are granted, periodic review at both the County and LCDC level is concluded on the site, and mining commences. The Angell Brothers Conservation Easement is the largest single conservation easement conveyed to the Friends of Forest Park. It is anticipated that Friends of Forest Park will assign the easement to METRO as part of the Greenspaces program.

4. WILDLIFE

a. Designated Level of Protection

The designated level of protection for the Significant Wildlife Habitat in the West Hills area is 3.C. — Limit Conflicting Uses.

b. Conflicting Uses to be allowed fully

Forestry/timber
Farm Use

c. Conflicting Uses to be allowed conditionally

Community Service/Conditional Uses
Wood Processing(limited, sawmills, etc.)
Wholesale/retail for farm/forest products
Campgrounds
Cemeteries
Fire Stations
Water infrastructure facilities
Utility facilities
Parks
Landfills
Hunting & Fishing lodges
Logging equipment repair and storage
Aircraft landing areas
Schools

Churches
Golf Courses
Road widening requiring additional right-of-way or building removal
Farm-related commercial activities
Dog Kennels
Group Care Facility
Cottage Industries
Rural Service/Commercial
Tourist Commercial
Other Community Service Uses
Residential Uses
Single-family Residential
Farm/Forest Worker Housing
Mining/Geothermal Uses

d. Conflicting Uses not allowed

None

e. Program to achieve the goal

The program comprises land use regulations and non-regulatory measures to assure long-term protection of significant wildlife habitat in the West Hills.

Non-regulatory

• Multnomah County will explore tax incentives or other methods of encouraging conservation easements to protect significant wildlife habitat

• Multnomah County will urge and offer to work with the Oregon Department of Forestry to craft Forest Practices Act rules which better protect wildlife habitat in the West Hills.

• Multnomah County will work cooperatively on joint programs with the U.S. Natural Resources Conservation Service and the West Multnomah Soil and Water Conservation District to promote agricultural practices which protect streams and associated wildlife habitat.

Regulatory

• To protect significant wildlife habitat in forest and exclusive farm use zones, Multnomah County will maintain and enforce strict parcel size requirements and dwelling restrictions no less restrictive than state law in effect in 1995.

• Multnomah County will use existing animal control ordinances to restrict free-roaming domestic animals which prey upon and harass wildlife.

• Multnomah County shall adopt zoning ordinance provisions which limit additional clearing of forested areas in association with non-forestry related development.

• Multnomah County shall adopt zoning ordinance provisions which promote clustering of rural residential and rural service development adjacent to existing public roads and existing

• Multnomah County accepts, encourages,and will honor to the extent allowed by law, third-party agreements to protect significant wildlife habitat through private sales, dedications, donations, easements, or other use restrictions.

• Multnomah County will rely on state agency administration of state regulations that affect protection of significant wildlife habitat in the West Hills, and will review and comment on state agencies' programs affecting protection of significant wildlife habitat in the West Hills.

residential and service development.

• Multnomah County shall adopt zoning ordinance provisions which restrict height and type of fencing adjacent to public roads.

• Multnomah County shall adopt zoning ordinance provisions which prohibit the planting or maintaining of nuisance, and non-native invasive plant species as part of a proposed development.

• Multnomah County shall require the Angell Brothers expanded quarry site to take the following measures as part of its operation and reclamation plan:

-- Minimization of the area mined at any given time.

-- Demonstration that reclaimed areas are capable of supporting forest vegetation.

-- Simultaneous reclamation along with mining to minimize non-vegetated areas.

-- Reclamation of the site so as to best enhance wildlife habitat values

5. SUMMARY

The scenic area, stream riparian areas, aggregate resource, and wildlife habitat areas should be designated "3-C" . This will provide a level of protection that recognizes and protects the attributes that make each resource significant.

The scenic area, stream riparian areas and wildlife habitat areas should be protected through implementation of the Significant Environmental Concern (SEC) overlay zone. Specific standards to govern new development have been outlined in the previous section. These standards will be drafted into code language and reviewed by the Planning Commission and Board of County Commissioners beginning in August. The standards in many cases provide overlapping protection to the significant resources. For example, the standard to limit the size of the area cleared of native vegetation around a house also protects scenic qualities because

the break in the forest cover will be limited.

These designations and proposed protection standards provide overall protection to all four of the significant resources in the West Hills. This program complies with Statewide Planning Goal 5.

[Added 1994, Ord. 804 § IV]

11.15.6750 Purposes

The purposes of the Protected Aggregate and Mineral Resources Overlay Subdistrict are:

(A) To provide a mechanism to identify and, where appropriate, protect significant aggregate and mineral resource sites;

(B) To allow surface mining subject to uniform operating standards; and

(C) To regulate conflicts with surface mining activities.

11.15.6755 Area Affected

This subsection shall apply to those lands designated PAM on the Multnomah County Zoning Map. On the Zoning Map shall also be a reference to the relevant site-specific Comprehensive Plan documents.

Exemption activities as described in MCC .6760(A) and (B) are allowed in all districts, not only those designated PAM.

11.15.6760 Exemptions

(A) The following activities are exempt from the requirements of MCC .6750 through .6795 and .7305 through .7335. Operators or land owners have the burden of qualifying for any exemption.

(1) Mining on forest lands auxiliary to forestry operations occurring in compliance with the Forest Practices Act as administered by the Oregon Department of Forestry.

(2) Lawful mining operating under a DOGAMI "Grant of Total Exemption" on (the effective date of the Ordinance) on property owned or controlled by the operator. Abandonment, restoration, or alteration of this use shall be in compliance with the non-conforming use provisions of MCC .8805 and .8810.

(B) Mining less than 1,000 cubic yards of material in conjunction with mining an area of less than one acre is exempt from the requirements of MCC .6750 through .6795 and .7305 through .7335, but shall require the approval of a Hillside and Erosion Control Permit and any other permits as may be required in any overlay subdistrict.

(C) Mining a quantity in excess of (B), but mining less than 5,000 cubic yards of material or disturbing less than one acre of land within a period of 12 consecutive months until mining affects five or more acres is exempt from the requirement in MCC .7325 and .7331 to obtain a DOGAMI operating permit. However, mining at this level of activity shall:

(1) Be on a "protected site" as determined by, and subject to restrictions warranted by, the Goal 5 process;

(2) Be approved as a mining conditional use pursuant to the provisions and requirements of MCC .7305 through .7335; and

(3) Obtain approval of a Hillside and Erosion Control Permit in conjunction with the mining conditional use approval. The Hillside and Erosion Control permit shall be required in place of all references in the plan and MCC 11.15 to obtaining a DOGAMI operating permit in recognition that this level of mining activity is exempted by DOGAMI rules for such a permit.

11.15.6765 Definitions

As used in this subdistrict and MCC .7305 through .7335, unless otherwise noted, the following words and their derivations shall have the following meanings:

(A) *Conflicting Use* – A use authorized in the underlying zone which, if allowed, could adversely affect operations at a protected aggregate and mineral resource site. As used in this subsection, a *conflicting use* is also another inventoried significant Goal 5 resource located on or adjacent to a protected aggregate or mineral site if that resource

could force a change in mining or processing at the site.

(B) *Dust Sensitive Use* – A *conflicting use* which is primarily used for habitation. Residential structures, churches, hospitals, schools, public libraries, and campgrounds are considered dust sensitive uses during their period of use. Forest uses and farm uses are not *dust sensitive uses* unless determined through the *Goal 5 process.*

(C) *ESEE Analysis* – The analysis of Economic, Social, Environmental and Energy consequences of allowing mining at a *significant site*, and allowing *conflicting uses* to displace mining at a *significant site.* The *ESEE analysis* is the basis for determining the level of protection to be given the resource.

(D) *Extraction Area* – The area of a *protected* aggregate and mineral resource site in which mining and associated processing is permitted.

(E) *Goal 5 Process* – The planning process required by Oregon Administrative Rules Chapter 660, Division 16. The *Goal 5 process* involves identifying resource sites, determining their significance, identifying conflicting uses, analyzing the economic, social, environmental and energy consequences of *conflicting uses*, determining the level of protection given to a resource site, and implementing a program to protect *significant sites.*

(F) *Impact Area* – The area where uses may occur that could adversely affect the resource site or be adversely affected by use of the resource site.

(G) Mining – The excavation of sand, aggregate (gravel), clay, rock, or other similar surface or subsurface resources. Mining does not include:

(1) Excavations conducted by a landowner or tenant on the landowner or tenant's property for the primary purpose of reconstructing or maintaining access roads,

(2) Excavation or grading conducted in the process of farm or cemetery operations,

(3) Excavation or grading conducted within a road right-of-way or other easement for the primary purpose of road construction, reconstruction or maintenance, or

(4) Removal, for compensation, of materials resulting from on-site construction for which a development permit and a construction time schedule have been approved by the county.

(H) *Noise Sensitive Use* – A *conflicting use* which is primarily used for habitation. Residential structures, churches, hospitals, schools, public libraries, and campgrounds are considered *noise sensitive uses* during their period of use. Forest uses and farm uses are not *noise sensitive uses* unless determined through the *Goal 5 process.*

(I) PAM Overlay Subdistrict – A special purpose zoning designation for the purposes of MCC .6750 that is placed on a zoning map over a base zoning district (ie. CFU). The provisions of the PAM subdistrict shall apply to land uses as specified, notwithstanding the provisions of the underlying zone district.

(J) *Processing* – The washing, crushing, screening, and handling of aggregate and mineral resources. Batching and blending of asphalt or portland cement concrete are included in the definition of processing.

(K) *Protected Site* – *Significant* resource sites which are identified through the *Goal 5 Process* as resources that the county will protect from *conflicting uses*. The special district designation Protected Aggregate and Mineral Resources (PAM) shall only be applied to *protected sites.*

(L) *Restrictive Covenant* – An enforceable promise, given by the owner of a parcel whose use and enjoyment of that parcel may be restricted in some fashion by mining occurring on another parcel, not to object to the terms of a permit issued by a local government, state agency or federal agency. The restrictive covenant shall bc recorded in the real property records of the county, shall run with the land, and is binding upon the heirs and successors of the parties. The covenant shall state that obligations imposed by the covenant shall be released when the site has

been mined and reclamation has been completed.

(M) *Significant Site* – A site containing either significant aggregate resources or significant mineral resources. The county will judge the significance of mineral and aggregate resources on a case by case basis, under the standards and procedures in LCDC's Goal 5 interpretive rules.

11.15.6770 PAM Overlay Special Subdistricts

The Protected Aggregate and Mineral Resource Subdistrict (PAM) comprises two areas, the *Extraction Area* (PAM-EA) and the *Impact Area* (PAM-IA).

(A) The *Extraction Area* shall be applied to the portion of *protected sites* where mining and associated processing is to occur. The *Extraction Area* may consist of one or more parcels or portions of parcels, and may be applied to contiguous properties under different ownership. The *Extraction Area* boundary may be modified through the *Goal 5 process* to reduce conflicts with *conflicting uses* existing when the overlay is applied. The *Extraction Area* shall be shown on the zoning map with the designation PAM-EA.

(B) The *Impact Area* shall be applied to parcels or portions of parcels adjacent to the *Extraction Area* and within the *Impact Area* deemed appropriate through the *Goal 5 process*. The *Impact Area* shall be shown on the zoning map with the designation PAM-IA.

11.15.6775 Procedure For Applying The PAM Subdistrict

(A) A PAM subdistrict shall be established by amendment of the Comprehensive Framework Plan and Zoning Map. The relevant factors for the establishment of the subdistrict are within the Oregon Administrative Rules Chapter 660, Division 16; Comprehensive Plan Policy 16-B; MCC 11.05.290(1) and (2); and the applicable provisions of MCC 11.15.8205 through .8295. The factors in MCC 11.15.8230(D) and (E) shall not apply.

(B) Under the applicable provisions of OAR Chapter 660, Division 16 and Comprehensive Plan Policy 16-B and based upon the analysis of information about the location, quality, and quantity of the aggregate and mineral resource, the county shall make the following determinations regarding the inventory status of the resource site and, if appropriate, continuation of the *Goal 5 process*:

(1) If the information about the location, quality, and quantity of a resource site is not adequate to allow a determination of significance, the site shall be placed on a plan inventory of "potential sites" and shall remain on that inventory until information is available to determine whether or not the site is *significant*, or

(2) If the resource site does not meet the definition of a *significant site*, the site shall be placed on a plan inventory of "not significant sites", or

(3) If the resource site meets the definition of a *significant site*, the *Goal 5 process* shall be continued.

(C) Under the applicable provisions of OAR Chapter 660, Division 16 and Comprehensive Plan Policy 16-B and based upon the *ESEE analysis*, the county shall determine the amount of protection to be given each *significant* site. Each determination shall be incorporated into the comprehensive plan, and shall be reflected on the zoning maps. One of the following determinations shall be made:

(1) Protect the site fully and allow surface mining as a conditional use. The county shall place the site on the *Protected Sites* inventory, apply the Protected Aggregate and Mineral Resources Subdistrict, specify the planned use of the site following reclamation, and prohibit the establishment of *conflicting uses* within the *Extraction Area* and the *Impact Area*. Conditional use approval of surface mining shall be pursuant to MCC .7305 through .7335 and shall not be subject to the conditional use provisions of MCC .7110(C), .7110(E), .7115, .7120, and .7125.

(2) Balance protection of the site and conflicting uses, allow surface mining as a conditional use. The county shall place the site on the *Protected Sites* inventory, apply the Protected Aggregate and Mineral Resources Subdistrict, specify the planned use of the site following reclamation, and identify which uses in the underlying zone are allowed outright, allowed conditionally, or prohibited. Conditional use approval of surface mining shall be pursuant to any site-specific requirements developed through the *Goal 5 process* and MCC .7305 through .7335. Review criteria and conditions shall not include the conditional use provisions of MCC .7110(C), .7110(E), .7115, .7120, and .7125. Site-specific requirements developed through the *Goal 5 process*, MCC .6780, and .6785 shall govern development of *conflicting uses*.

(3) Allow *conflicting uses* fully and do not allow surface mining except as exempted in MCC .6760. The county shall then place the site on the "Not Protected Sites" inventory in accordance with Framework Plan Policy 16-B, not apply the Protected Aggregate and Mineral Resource Subdistrict, and not protect the site from *conflicting uses*.

11.15.6780 Extraction Area (PAM-EA) - Allowed Uses

Notwithstanding the use provisions of the underlying district, the following use provisions shall apply in the PAM-EA Subdistrict:

(A) Primary Uses, Uses Permitted Outright, Uses Permitted Under Prescribed Conditions, and Conditional Uses allowed in the underlying district may be permitted subject to the underlying district provisions and criteria of approval, except as provided for in this subsection.

(1) Uses identified through the *Goal 5 process* to be prohibited within the *Extraction Area* shall not be permitted.

(2) *Noise* or *dust sensitive* uses not prohibited in (1) may be permitted under the conditional use procedural provisions of MCC .7105 through .7140 when found by the Hearing Authority to satisfy the approval criteria of MCC .6790 and the approval criteria of the underlying district.

(3) *Conflicting uses* required by the *Goal 5 process* to be conditionally approved may be permitted under the procedural provisions of MCC .7105 through .7140 when found by the Hearing Authority to satisfy the approval criteria of MCC .6790 and the approval criteria of the underlying district.

(B) The following uses may be permitted subject to a finding by the Hearing Authority that all standards adopted as part of the *Goal 5 process* and the provisions of MCC .7305 through .7335 are met. Review by the Hearing Authority shall be under the procedural provisions of MCC .7105, .7107, .7110(A), .7110(B), .7110(D), .7130 and .7135.

(1) Mining;

(2) *Processing*, except the batching or blending of aggregate and mineral materials into asphalt concrete within two miles of a planted commercial vineyard existing on the date of conditional use approval;

(3) Stockpiling of aggregate and mineral materials;

(4) Sale of mineral products excavated and processed on-site;

(5) Storage of equipment or vehicles used in on-site mining or processing;

(6) Buildings, structures, and activities necessary and accessory to mining or reclaiming aggregate or mineral resources.

11.15.6785 Impact Area (PAM-IA) - Allowed Uses

Notwithstanding the use provisions of the underlying district, the following use provisions shall apply in the PAM-IA Subdistrict. Primary Uses, Uses Permitted Outright, Uses Permitted Under Prescribed Conditions, and Conditional Uses allowed in the underlying district may be permitted subject to the underlying district provisions and criteria of approval, except as follows:

(A) Uses identified through the *Goal 5 process* to be prohibited within the *Impact Area* shall not be permitted;

(B) *Noise* or *dust sensitive* uses not prohibited in (A) may be permitted under the conditional use procedural provisions of MCC .7105 through .7140 when found by the Hearing Authority to satisfy the approval criteria of MCC .6790 and the approval criteria of the underlying district; and

(C) *Conflicting uses* required by the *Goal 5 process* to be conditionally approved may be permitted under the procedural provisions of MCC .7105 through .7140 when found by the Hearing Authority to satisfy the approval criteria of MCC .6790 and the approval criteria of the underlying district.

11.15.6790 Use Approval Criteria

(A) In acting to approve a Conditional Use subject to these provisions, the Hearing Authority shall find that:

(1) The proposed use will not interfere with or cause an adverse impact on lawfully established and lawfully operating mining operations;

(2) The proposed use will not cause or threaten to cause the mining operation to violate any applicable standards of this chapter, or the terms of a state agency permit. The applicant for a new *noise sensitive use* shall submit an analysis prepared by an engineer or other qualified person, showing that applicable DEQ noise control standards are met or can be met by a specified date by the nearby mining operation; and

(3) Any setbacks or other requirements imposed through the *Goal 5 process* have been met, or can be met by a specified date.

(B) Approval Conditions.

(1) Compliance with the use approval criteria may be satisfied through the imposition of clear and objective conditions of approval.

(2) Approval of any *conflicting use* in the *extraction area* or *impact area* shall be conditioned upon execution of a *restrictive covenant* in favor of the mining operator. The *restrictive covenant* shall incorporate all approval conditions, and an agreement not to object to the conduct of lawful operations conducted at the nearby surface mine.

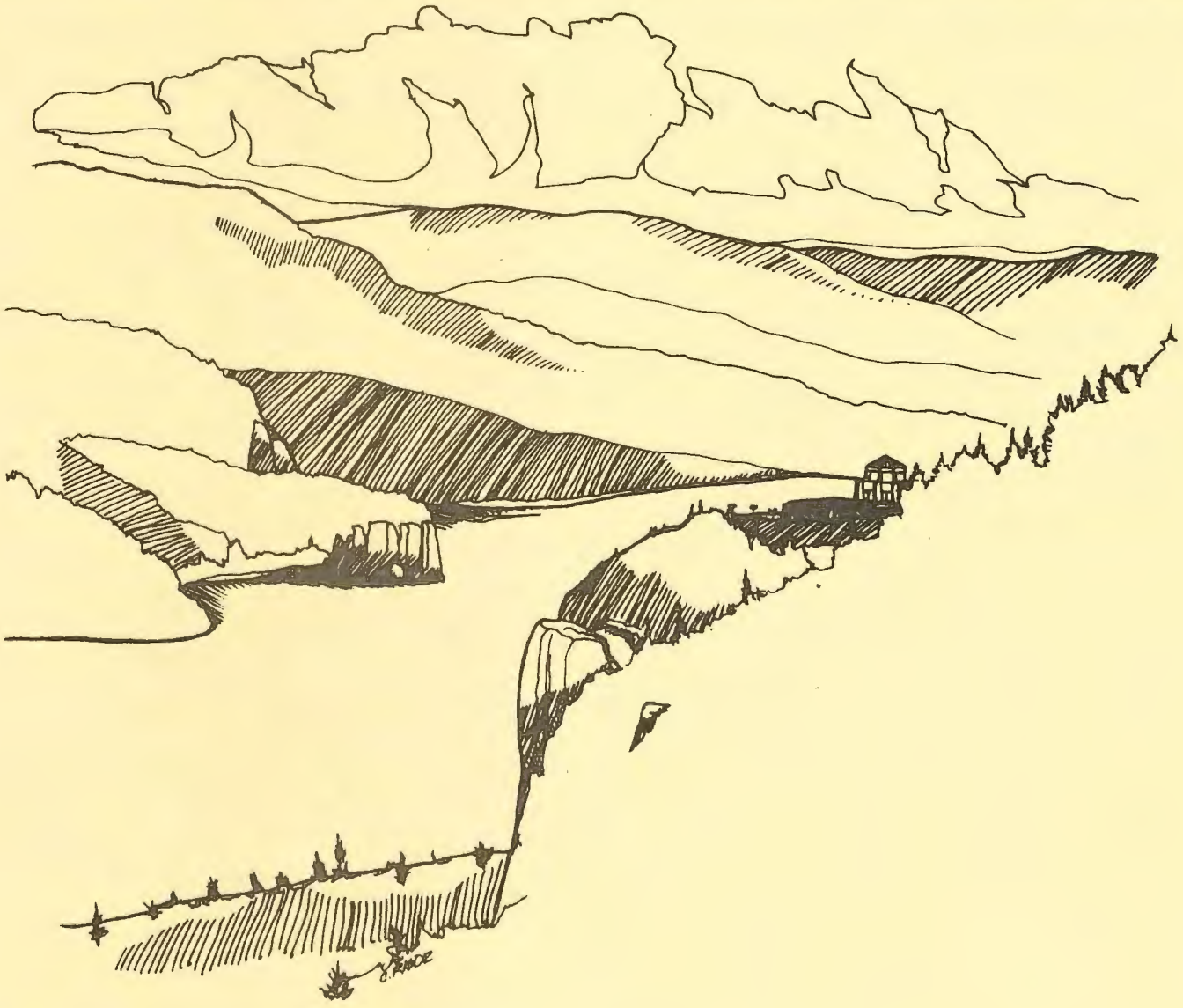
11.15.6795 Termination of the Protected Aggregate and Mineral Resources Subdistrict

When the aggregate or mineral site has been reclaimed, the county may rezone land to remove the Protected Aggregate and Mineral Resources Overlay Subdistrict (PAM) without revising the ESEE Analysis for the site. Rezoning shall not relieve requirements on the part of the owner or operator to reclaim the site in accordance with ORS 517.750 through 517.900 and the rules adopted thereunder.

EXHIBIT 3

MULTNOMAH COUNTY COMPREHENSIVE FRAMEWORK PLAN

Volume 2: Policies



MULTNOMAH COUNTY OREGON

September, 1983

POLICY 31: COMMUNITY FACILITIES AND USES

Community facilities and services include public and private activities which are operated for the benefit of the public and to fill a social need. Basic services which have a direct effect on the public health, safety and welfare are public schools, transportation, water supply and sewage and solid waste disposal. Essential support services include police and fire protection; sanitary and storm drain facilities; planning, zoning, and subdivision control; health and recreational facilities and services; energy; communications; and community governmental services.

A community's demand for types and levels of community services depends on the intensity and density of development, neighborhood characteristics, the present availability of services, and the accessibility of existing facilities or service alternates. Service providers in making their locational decisions must take into account such factors as public need, location of target clientele, existing financial obligations, present and anticipated resource availability, and costs of physical plant and program development. Taken together the siting and expansion of community facilities must be at locations reflective of community needs and the ability of service agencies to deliver services.

INTENT

It is the intent of this policy to support the location of community facilities at sites which reinforce the timely and orderly delivery of services, maximize efficient use of existing facilities and provide for the development of new and additional services where unmet public need has been identified.

POLICY 31

THE COUNTY'S POLICY IS TO:

A. SUPPORT THE SITING AND DEVELOPMENT OF A FULL RANGE OF COMMUNITY FACILITIES AND SERVICES BY SUPPORTING THE LOCATION AND SCALING OF COMMUNITY FACILITIES AND USES MEETING THE NEEDS OF THE COMMUNITY AND REINFORCING COMMUNITY IDENTITY.

B. ENCOURAGE COMMUNITY FACILITIES SITING AND EXPANSION AT LOCATIONS REINFORCING ORDERLY AND TIMELY DEVELOPMENT AND EFFICIENT PROVISION OF ALL PUBLIC SERVICES AND FACILITIES.

C. ENCOURAGE LAND USE DEVELOPMENT WHICH SUPPORT THE EFFICIENT USE OF EXISTING AND PLANNED COMMUNITY FACILITIES.

D. SUPPORT THE DEVELOPMENT OF A UNIFIED APPROACH TO LONG RANGE COMMUNITY FACILITIES PLANNING AND CAPITAL INVESTMENT PROGRAMMING IN MULTNOMAH COUNTY.

E. CLASSIFY COMMUNITY FACILITIES ACCORDING TO THEIR FUNCTION AND SCALE OF OPERATIONS.

SCALE	TYPE OF FACILITIES
MAJOR REGIONAL	COMMUNITY COLLEGE
	PRIVATE COLLEGE
	UNIVERSITY
	LIVE-IN TRAINING FACILITIES
	AIRPORT
	GOVERNMENT SERVICES
	ADMINISTRATIVE
	HUMAN
	JUSTICE
	HOSPITAL
MINOR REGIONAL	CEMETERIES
	REGIONAL PARKS
	BOAT LAUNCHES
	MARINAS
	RECYCLING CENTER
	HALF-WAY HOUSES
	GENERAL AVIATION AIRPORTS
MAJOR COMMUNITY	FIRE STATION
	PRECINCT STATIONS
	LODGES
	AMBULANCE SERVICES
	HIGH SCHOOL
	MUSEUM
	TRANSIT STATIONS
	GOVERNMENT SERVICES
	ADMINISTRATIVE
	HUMAN
	JUSTICE
	COMMUNITY RECREATION CENTER
	RECREATION CENTER
MINOR COMMUNITY	LIBRARY
	GRADE SCHOOL
	MIDDLE SCHOOL
	PARKS
	NEIGHBORHOOD MEETING ROOMS
	RESIDENTIAL CARE FACILITY
	CLINICS
	CONVALESCENT HOMES
	CHURCHES
	NEIGHBORHOOD RECREATION CENTER

SCALE	TYPE OF FACILITIES
COMMUNITY SERVICE FOUNDATIONS	ELECTRICAL GENERATION, DISTRIBUTION AND TRANSMISSION NATURAL GAS STORAGE SEWAGE TREATMENT PLANTS TELEHONE, COMMUNICATION STATION AND SWITCHING WATER STORAGE RADIO & TELEVISION TRANSMITTERS

SOLID WASTE MANAGEMENT

SOLID WASTE IS A REGIONAL CONCERN REQUIRING REGIONAL SOLUTIONS. THE COUNTY RECOGNIZES METRO'S RESPONSIBILITY AND AUTHORITY TO PREPARE AND IMPLEMENT A SOLID WASTE MANAGEMENT PLAN AND THE METRO'S "PROCEDURE FOR SITING SANITARY LANDFILL" AND WILL PARTICIPATE IN THESE PROCEDURES AS APPROPRIATE.

F. LOCATE COMMUNITY FACILITIES ON SITES WITH AVERAGE SITE GRADES CONSISTENT WITH A PROJECT'S SCALE AND IMPACTS. SITE SLOPE REQUIREMENTS BY SCALE ARE:

SCALE	AVERAGE SITE SLOPE STANDARD
MAJOR REGIONAL	6%
MINOR REGIONAL	6%
MAJOR COMMUNITY	10%
MINOR COMMUNITY	10%
COMMUNITY SERVICE FOUNDATION	20%

FOR SITES WITH AVERAGE SLOPES STEEPER THAN THE STANDARD THE DEVELOPER MUST BE ABLE TO DEMONSTRATE THAT THROUGH ENGINEERING TECHNIQUES ALL LIMITATIONS TO DEVELOPMENT AND THE PROVISION OF SERVICES CAN BE MITIGATED.

G. SUPPORT THE LOCATION OF COMMUNITY FACILITIES ON EXISTING TRANSPORTATION SYSTEMS WITH VOLUME CAPACITIES AND MODAL MIX SPLITS AVAILABLE AND APPROPRIATE TO SERVE PRESENT AND FUTURE SCALES OF OPERATION. VEHICULAR ACCESS REQUIREMENTS BY SCALE OF FACILITY ARE:

SCALE	VEHICULAR ACCESS STANDARDS
MAJOR REGIONAL	ACCESS TO A FREEWAY INTERCHANGE DIRECT ACCESS TO A COUNTY MAJOR ARTERIAL. PUBLIC TRANSIT AVAILABLE WITHIN 1/4 MILE.
MINOR REGIONAL	DIRECT ACCESS TO A COLLECTOR STREET AND NO ROUTING OF TRAFFIC THROUGH LOCAL NEIGHBORHOOD STREETS. PUBLIC TRANSIT AVAILABLE WITHIN 1/4 MILE.

SCALE	VEHICULAR ACCESS STANDARDS
MAJOR COMMUNITY	DIRECT ACCESS TO A COLLECTOR STREET AND NO ROUTING OF TRAFFIC THROUGH LOCAL NEIGHBORHOOD STREETS PUBLIC TRANSIT AVAILABBLE WITHIN 1/4 Mile
MINOR COMMUNITY	DIRECT ACCESS TO A COLLECTOR STREET AND NO ROUTING THROUGH LOCAL NEIGHBORHOOD STREETS PUBLIC TRANSIT AVAILABLE WITHIN 1/4 MILE
COMMUNITY SERVICE FOUNDATIONS	TRUCK TRAFFIC WILL NOT BE ROUTED THROUGH LOCAL NEIGHBORHOOD STREETS

H. RESTRICT THE SITING OF COMMUNITY FACILITIES IN LOCATIONS WHERE SITE ACCESS WOULD CAUSE DANGEROUS INTERSECTIONS OR TRAFFIC CONGESTION CONSIDERING THE FOLLOWING:

1. ROADWAY CAPACITIES
2. EXISTING AND PROJECTED TRAFFIC COUNTS
3. SPEED LIMITS
4. NUMBER OF TURNING POINTS

I. SUPPORT COMMUNITY FACILITIES SITING AND DEVELOPMENT AT SITES OF A SIZE WHICH CAN ACCOMMODATE THE PRESENT AND FUTURE USES AND IS OF A SHAPE WHICH ALLOWS FOR A SITE LAYOUT IN A MANNER WHICH MAXIMIZES USER CONVENIENCE, ENERGY CONSERVATION, AND PEDESTRIAN AND BICYCLE ACCESS TO AND WITHIN THE SITE.

J. PROMOTE COMPATIBLE DEVELOPMENT AND MINIMIZE ADVERSE IMPACTS OF SITE DEVELOPMENT ON ADJACENT PROPERTIES AND THE COMMUNITY THROUGH THE APPLICATION OF DESIGN REVIEW STANDARDS CODIFIED IN MCC 11.05.7805 - 11.05.7865.

K. PROVIDE FOR THE SITING AND EXPANSION OF COMMUNITY FACILITIES IN A MANNER WHICH ACCORDS WITH THE OTHER APPLICABLE POLICIES OF THIS PLAN.
