Goal 5

CLATSOP COUNTY
GOAL 5
COUNTY-WIDE ELEMENT

OPEN SPACES, SCENIC/HISTORIC AREAS, AND NATURAL RESOURCES

CLATSOP COUNTY

COUNTY-WIDE ELEMENT

BACKGROUND REPORT

GOAL 5

OPEN SPACES, SCENIC AND HISTORIC AREAS AND NATURAL RESOURCES

Adoption	Ordinance	80-7	July 23 1980
Adoption	Ordinance	83-17	September 30, 1983
Amended	Ord	84-5	April 11, 1984
Amended	Ord	84-9	May 23, 1984
Amended	Ord	86-10	April 2, 1986
"	"	87-11	Oct 28, 1987
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"	"	88-2	April 3, 1988
"	"	92-16	Nov 23 1992

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REQUIREMENTS OF THE STATEWIDE PLANNING GOAL

The overall goal of Statewide Planning Goal #5, Open Space, Scenic and Historic Areas, and Natural Resources, is:

> "To conserve open space and protect natural and scenic resources."

To achieve this goal, Clatsop County is required to undertake an inventory of the following twelve types of resources:

a. Land needed or desirable for open space;
b. Mineral and aggregate resources;
c. Energy sources;
d. Fish and wildlife areas and habitats;
e. Ecologically and scientifically significant natural areas, including desert areas;
f. Outstanding scenic views and sites;
g. Water areas, wetlands, watersheds and groundwater resources;
h. Wilderness areas;
i. Historic areas, sites, structures and objects;
j. Cultural areas;
k. Potential and approved Oregon Recreation trails;
l. Potential and approved federal wild and scenic waterways and state scenic waterways.

These resources are to be inventoried as to their location, quality and quantity.

Upon completion of the resource inventory, a determination is to be made if there are conflicting non-open space uses for these resources or resource areas. Areas or sites for which no conflicting use has been identified are to be protected. Where conflicting uses have been determined to exist, the economic, social, enviromental and energy consequences of the conflicting uses (on the resource) shall be determined.

Based on the inventory and the analysis of conflicting uses, the County is to develop a program that will:

1) insure open space;
2) protect scenic and historic areas and natural resources for future generations; and
3) promote healthy and visually attractive environments in harmony with the natural landscape character.

Requirements of the Administrative Rule on Goal #5, OAR 660-15-000

An administrative rule clarifying the requirements of Statewide Planning Goal #5, Open Spaces, Scenic and Historic Areas, and Natural Resources was adopted by the Land Conservation and Development Commission in June of 1981. The administrative rule establishes a method to be used in applying Goal #5 to resource sites. This procedure addresses the following

elements: what is and is not required to be included in the plan inventory; how to identify conflicting uses for resource sites and determine their implacts on those resource sites; and how to protect resource sites, depending on the degree to which conflicting uses are to be allowed or limited.

The following is an outline of the three-step procedure which the Administrative Rule establishes. The first step is data collection and an evaluation of the quality, quantity, and location of the resource sites identified. Based on the information collected, one of three decisions is made: the resource is determined not to be important enough to warrant inclusion in the inventory; or the available information is inadequate to determine the value of an identified resource (in this case, the County must include policy language in its Comprehensive Plan committing the County to the development of additional information on the resource and an evaluation of the resource within a specific period of time); or there is sufficient information on the resource site's quality, quantity, and the resource site is important enough to include in the inventory.

The second step is the identification of conflicting non-open space uses for a given resource or resource site. If no conflicting uses are identified, the resource must be protected. If conflicting uses are identified, an evaluation of the environmental, social, economic and energy consequences of allowing the conflicting use is required. The level of information that the County must provide concerning possible conflicting uses should be adequate to explain why the County chose to protect, or not protect a given resource.

The third step is the development of a program to achieve the purpose of the Open Space Goal. The type of program to be developed is dependent on whether the resource site is to be protected from all conflicting uses, or identified conflicting uses to be fully allowed, or conflicting uses of the resource site are limited through plan policy and zoning ordinance provisions.

Relationshjip of Goal #5 to the Estuarine Resources Goal #16, and the Coastal Goal #17

Goal #5 lists twelve types of resources that are subject to inventory and possible protection. A number of these resources are also addressed by the Estuarine Resources Goal and the Coastal Shoreland Goal. Thus, when one of the twelve Goal #5 resources is located in either an estuarine or coastal shoreland area, the appropriate resource inventory and protection requirements of the Estuarine Resources Goal or the Coastal Shorelands Goal are applied. Therefore, these resources are not covered by this element of the Comprehensive Plan.

The following describes the scope of the Goal #5 inventory for each of the identified resources:

1) Open Spaces - all land and water areas
2) Mineral/Aggregate - all land and water areas
3) Energy Sources - all land and water areas
4) Fish/Wildlife Habitat - all land outside of the County's estuarine areas

5) Ecologically significant Natural Areas - all land outside the Coastal Shoreland planning area
6) Scientifically significant Natural Areas - all land areas
7) Outstanding Scenic Views - all lands outside of the Coastal Shoreland planning area.
8) Watersheds - all land areas
9) Groundwater resources - all land areas
10) Wetlands - all lands outside of the Coastal Shoreland planning area
11) Historical/Archeological Sites - all areas
12) Wilderness - all land and water areas
13) Oregon Recreation Trails - all land areas
14) Wild and Scenic Waterways - all land areas

Methodology of the Open Space, Scenic and Historic Areas, and Natural Resources Inventory

The following procedure was used in undertaking the Clatsop County Open Space inventory and in the establishment of a program to protect identified open space sites resources:

1) Determination of the elements of each resource category to be inventoried. The completeness of each resource category to be verified with appropriate state agencies.
2) Selection of inventory sources.
3) Development of a preliminary resource list based on the inventory sources.
4) Evaluation of the elements on the preliminary resource list to determine whether their location, quality and quantity warrants inclusion in the Open Space inventory. In general, an attempt was made to gather sufficient information on the resource at this time, rather than deferring the required decisions to a later date.
5) Establishment of the final inventory lists.
6) Determination of conflicting uses, if any, for the resources on the final inventory list. Where conflicting uses were identified, an evaluation of the enviromental, social, energy and economic impacts of allowing these conflicting uses was undertaken.
7) Development of a program to achieve the objective of the Open Space goal. This includes a determination of which resources to protect and the appropriate method of resource protection. Generally, where they were found to be adequate, existing state, or federal programs and regulations were relied on to protect resources. Additional local protection was developed only for those resources for which existing regulation was found to be inadequate to meet the intent of the Goal.

The Goal defines open space to "consist of land used for agriculture or forest uses and any land area that would, if preserved and continued in its present use:

a) Conserve and enhance natural or scenic resources;
b) Protect air or streams or water supply;
c) Promote conservation of soils, wetlands, beaches or tidal marshes;
d) Conserve landscaped areas such as public or private golf courses, that reduce air pollution and enhance the value of abutting or neighboring property;
e) Enhance the value to the public or abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open space;
f) Promote orderly urban development.

There are three types of open space within Clatsop County. The first, and by far the most extensive, is general open space. This category consists of forest lands, agricultural lands, estuarine areas, the Pacific Ocean and adjacent beaches. Forest and agricultural lands comprise 95% of the County's land areas. The estuarine and ocean beach areas contribute a substantial amount of water area.

The major conflicting uses affecting the open space value of forest and agricultural land are intensive levels of rural residential, commercial, and industrial development. Tourism is an important and expanding segment of Clatsop County's economic base. Although most of the County's tourism is in conjunction with the ocean shore, a segment also occurs in inland portions of the County. The open space character of the County is one of the elements that attracts visitors. A consequence of a loss of open space could be a reduction in the level of tourism, and thus the overall economic base of the County. Almost all of the County's forest and agricultural land has been zoned for Exclusive Farm Use, 38 acre minimum, Forest-80, 80 acre minimum, or Agriculture-Forestry, 20 acre minimum. (For other agricultural and forest land areas, the County has taken exceptions that provide findings that these areas are built and committed to non-resource use. These areas, because of existing rural residential development are not considered to have substantial open space values). Although the primary intent of the resource zones is to protect the resource value of the land, they also protect the land's open space values by limiting the intensity of uses that might conflict with open space values. The zones also incorporate locational criteria for residential, commercial and industrial uses. These criteria insure that the impacts of uses conflicting with open space values are minimized.

The major conflicting use of the open space value in estuarine areas is the loss of estuarine surface area through filling and draining. As with forest and agricultural land, a loss of estuarine area could result in a loss of tourism and recreation activity that is associated with the estuary. The County has developed a comprehensive program for managing its estuaries. Almost all estuarine areas are zoned either natural or conservation. These zones, by restricting the level of estuarine alteration, effectively limit conflicting uses that may reduce the open space values of estuarine areas. Estuarine development zones do allow significant estuarine alterations. However, because less than 1/2% of the County's estuarine areas are so designated, there is a limited affect on the estuary's open space value.

No conflicting uses for the ocean beaches have been identified. The ocean beach, up to the Ocean Shore Zone Line, is in State of Oregon ownership. Activities occurring on the beaches are regulated by the Parks and Recreation Branch of the Oregon Department of Transportation.

The second group of open space consists of site specific resources. This group includes parks, wildlife refuges, natural areas, specific scenic sites, and fresh water wetlands. The location, quality and quantity of these resources as well as possible conflicting uses and the consequences of allowing conflicting uses is discussed in the sections of this report dealing with the particular resource, e.g. natural areas or scenic sites. Parks are inventoried and described in the Plan's recreation element.

The final category of open space consists of areas that are provided in conjunction with a specific development, usually residential. This type of open space can serve a number of purposes: the protection of areas of steep slope, geologic hazard, or flooding hazard; the buffering of conflicting land uses; or the provision of areas for passive and active forms of recreation. The County has adopted Comprehensive Plan policies that encourage cluster development and the retention of open space in residential developments. In the Clatsop Plains sub-area, subdivisions are required to have clustered lots in order to maintain open space values.

In summary, because more than 95% of the County's land and water area is open space, the provision of additional open space is not an issue in the County.

MINERAL AND AGGREGATE RESOURCES

The County's existing mineral and aggregate resources are discussed in the Rock and Mineral Resources element of the Comprehensive Plan. This discussion includes a summary of the location and quantity, where known, of existing gravel and quarry stone sites. Also included are potential conflicting uses for these sites and the environmental, energy, social and economic consequences that permitting these conflicting uses would have.

Detailed information on potential rock and aggregate sites is not available for Clatsop County. The County will cooperate with the Department of Geology and Mineral Industries in investigating the feasibility of undertaking a study to identify valuable sites, should funding be available.

Revise the Rock and Mineral Resources Element of the Background Report to read as follows:

According to Bulletin No. 74, published in 1972 by the Oregon Department of Geology and Mineral Industries (DOGAMI), the major mineral resources of Clatsop County, currently being utilized, are rock and aggregate materials for construction purposes. The largest source of gravel was the Big Creek gravel pit, but the quantity of rock which was produced from that source created some environmental problems. The report also states that two commercial firms provide crushed rock: Sunset Crushed Rock at Astoria, and Howard Johnson and Sons at Seaside. Several other quarries are also available to supply rock to the County Road Department and the State Highway Department.

Intrusive bodies yield the best quarry stone. Several active quarry operations are located near the Big Creek Fish Hatchery along the lower reaches of Big Creek in the Svensen Quadrangle. Generally the rock is of poor quality and, consequently, is used on a very limited basis in logging road construction. The operations are hampered by the steepness of the slopes.

Scattered smaller operations are located on the upper slopes of Wickiup Mountain. These quarries are characterized by low volume, restricted access, and do not represent a future source of significant proportions.

The east face of Nicolai Ridge is composed of excellent quarry rock that, with property engineered procedures, could offer the potential of a large-scale operation.

Several smaller quarries are scattered throughout the northern Saddle Mountain and Birkenfeld Quadrangles. Rock quality is generally good and with adequate economic incentives these quarries could contribute significant resources.

Other excellent future sources of quarry rock could be developed in the vicinity of Humbug Creek and directly south of Humbug Mountain.

Since transportation costs are an important factor in the economics of supplying rock materials, rock sources should ideally be located on good haul roads, not more than 15 or 20 miles from the intended market. Clatsop County, because of the nature of its geologic rock materials, has only limited sources capable of furnishing good construction crushed rock and gravel and gravel aggregates. This is due to the fact that most of the upland areas are composed of marine sedimentary rocks which readily weather and break down into fine grained sands and rock materials of poor quality. The best source of rock in the County, therefore, is the Miocene intrusive rocks which are located within 15 or 20 miles from any major community. In some cases it is not economically feasible to transport these rock materials under normal operating conditions.

In estimating future needs for Clatsop County, the DOGAMI Report stated that the 1970 per capita use of aggregates amounted to 7 1/2 tons per person and that production for the year 1970 was 210,000 tons. If the per capita use of aggregate continues at that amount, it is estimated by the department that the annual production will rise to approximately 238,000 tons per year and that this would amount to, over the period 1970 to 1985, about 3,000,000 tons. The report states that the present quarries, although large, are limited in the amount of rock which can be produced. It is estimated that these quarries will be able to produce only about one-half to two-thirds of the quantities needed in the County by 1985. In order to provide aggregate, additional quarries of large size will have to be developed. It is likely that gravel also will have to be imported by barge from the upper Columbia River or from other sources outside the state. Existing rock and aggregate sources, particularly those which are close to a major area of potential new construction, should be kept available for further use because the rock and aggregate industry is vitally needed for the growth of an expanding community.

Clatsop County is using a list of removal permits compiled by the Department of Geology and Mineral Industries as its inventory of rock and aggregate material sites. The following is a summary of those sites.

The County's gravel and quarry stone sites fall into four zoning categories: Exclusive Farm Use (EFU), Forest -80 (F-80), Agriculture-Forestry 20 (AF-20), and Forest-38 (F-38). The following are the uses permitted in these zones that may conflict with the utilization of the aggregate site. Exclusive Farm Use outright uses are: school, church, utility facilities, single family residence in conjunction with a farm use; and conditional uses are: non-farm single family dwelling; commercial development in conjunction with a farm use; parks, golf course, boarding of horses, airport, and solid waste disposal sites. Forest-80 outright uses are: forestry, mineral extraction for forest purposes at least 500 feet from an existing residential zone or residential structure, forest processing at least 500 feet from an existing residential zone or residential structure, low intensity recreation, grazing, Christmas tree farming, utilities in conjunction with a permitted development, and impoundments necessary for forest management. Agriculture-Forestry 20 outright uses are: facilities in conjunction with a forest use, forest processing facility, single family residence and aquaculture; and conditional uses are: cottage industry, kennel and veterinary clinic, boarding house, and solid waste disposal site. Forest 38 outright uses are: facilities in conjunction with a forest use, forest products processing facility and aquaculture; and conditional uses are single family residence and solid waste disposal site.

Generally, conflicting uses consists of structural improvements that if established would make it difficult, or substantially more expensive, to recover the aggregate material.

The use of land for forest or farm use is not considered to be a conflicting use. The location and operation of aggregate sites on forest lands for forest uses is adequately controlled through the Forest Practices Act.

In addition to the sites listed above, gravel may also be removed from the rivers and streams of the County. Conflicting uses for the removal of gravel from streams are other recognized in-stream water uses such as fish habitat, source of water supply and recreational uses. Generally, other in-water uses of the County's streams and rivers do not conflict with the removal of gravel.

The major economic and social consequence of allowing conflicting uses would be to restrict the available supply of what is already a limited resource in the County. Aggregate materials are vital to the County's construction industry, both infrastructure, such as sewers and roads, and new housing, commercial and industrial uses. Restricting the available supply would likely raise the cost of aggregate materials. Higher prices could affect the level of construction in the County. Restricting the availability of aggregate sources may mean that materials from more distant areas will be required, thus increasing the energy costs of transporting the material. No major environmental consequences of allowing conflicting uses are anticipated.

The consequences of not allowing conflicting uses are restrictions on the use of property for other than aggregate use. This impact is most likely to be felt in the use of areas zoned Rural Residential, since this zone is intended to primarily provide Rural Residential development.

Sand is another of the County's mineral resources. Various sites on the Clatsop Plains have been used as a source of sand. It is anticipated that there may be a demand for additional sites in the future. The Clatsop Plains is zoned Residential-Agriculture 1 (RA-1), Rural Service Area-Single Family Residential Zone (RSA-SFR), Coastal Beach Residential (CBR), Exclusive Farm Use (EFU) and Residential-Agriculture 5 (RA-5).

The following are the uses permitted in these zones that may conflict with the utilization of sand. Residential-Agriculture-1, outright uses are: single family dwelling, utilities, farm use, forestry, park or playground, nursery, duplex; and conditional uses: public/semi-public developmlent, airport, dog kennel, campgrounds, veterinary clinic, cottage industry, public and private recreation and farm uses. Rural Service Area-Single Family Residential zone (RSA-SFR) outright uses are: single family dwelling, utilities, park or playground; and conditional uses are: public and semi-public uses, utilities and duplexes. Exclusive Farm Use Zone outright uses are: school, church, utility facilities, single family residence in conjunction with a farm use, farm use; and conditional uses are: non-farm single family dwelling commercial development in conjunction with a farm use, golf course, boarding of horses, airport and solid waste disposal site.

Generally, conflicting uses consist of structural improvements that if established would make it difficult or substantially more expensive to recover the sand material.

The major economic and social consequence of allowing the conflicting uses would be to restrict the available supply of sand. Sand is an important resource for the County's construction industry. Restricting the sources of supply may increase the cost of sand. Restricting the availability of sand may also mean that materials from more distant areas will be required, thus increasing the energy cost of transporting the material. No major environmental consequences of allowing conflicting uses are anticipated.

The consequences of not allowing conflicting uses are restrictions of the use of property for a range of uses allowed in what are essentially single family residential zones. Allowing sand mining would result in the removal of stabilizing vegetation, thus increasing the risk of wind blown erosion (a serious problem on the Clatsop Plains before a dune stabilization program was instituted).

The County has evaluated the trade-offs among conflicting uses and determined to discourage sand removal. The County's policy states "Extensive modifications of dunes is strongly discouraged because such activities are difficult to stabilize in addition to the fact that the rolling dunes make up the character of the Clatsop Plains."

Black sands are a potential mineral resource. They are located in the estuary near Hammond. Black sands consist primarily of magnetite, ilmenite, zircon and rutile and are considered potential future sources of iron and titanium.

Estuarine areas which only include black sands are designated either Aquatic Conservation (A-3) or Aquatic Natural (A-4). Mining and mineral extraction is not permitted in the Aquatic Natural zone (as required by the Estuarine Resources Goal).

Mining and mineral extraction is a conditional use in the Aquatic Conservation zone. Before mining could proceed, the operation would have to show that it was consistent with the resource capabilities of the area to absorb the activity without significant impact to estuarine habitat qualities.

*Clatsop County's inventory consists of 38 sites, 33 of which have little information known about them. They have not been placed in the Quarry & Mining (QM) zone, but are in other zones. The remaining five are the County's primary sites and are protected by the Quarry & Mining (QM) zone.

23 XI 92

DELETE (Ord 92-17)

The County's program for identified mineral and aggregate resources consists of the following elements:

*1. A Quarry & Mining Zone (QM) will be applied to the five sites listed in the inventory as appropriate for a QM zone. The zone will prohibit some conflicting uses and subject others to specific criteria. The County will establish policies and standards to protect adjacent uses from potential impacts from the utilization of aggregate sites.

*2. Clatsop County shall apply the Goal 5 Administrative Rule for the (1B) mineral and aggregate sites considered for QM zoning.

3 2. The County will rely on the Division of State Lands permitting process to insure that gravel extraction is consistent with conflicting uses such as fish habitat.

4 3. The removal of sand from the Clatsop Plains shall be discouraged. Where considered it shall be subject to conditional use criteria. Particular attention will also be paid to consistency with dune development standards.

5 4. The County will rely on its estuarine development standards to insure that the removal of black sands from the estuary is consistent with the resource capabilities of that area.

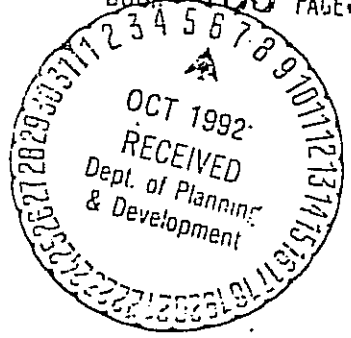
6 5. The County will rely on the Forest Practices Act and the Act's requirements for aggregate extraction for forest road use to insure that such removal is consistent with adjacent uses.

* Amended 94-9 May 23, 1994

EXHIBIT "A" (PART ONE) ORD 92-17 23 x 192

DELETE EXISTING GOAL & POLICIES AND REPLACE WITH THE FOLLOWING:

BOOK 799 PAGE 982



CLATSOP COUNTY

MINERAL AND AGGREGATE RESOURCES

COMPREHENSIVE PLAN POLICIES

Goal

To protect and ensure appropriate use of mineral and aggregate resources of the county, while minimizing any adverse effects of mining and processing upon surrounding land uses.

Policies

1. The county shall protect significant mineral and aggregate resources consistent with Statewide Planning Goal 5 and the process for complying with the Goal specified in Oregon Administrative Rules Chapter 660, Division 16.

2. In making a decision whether to protect a significant mineral or aggregate site from conflicting uses, the county shall recognize that Goal 5 requires the protection of natural resources for future generations, and that the requirements of other applicable Statewide Planning Goals must be considered in any analysis of conflicting uses.

3. The county shall maintain an inventory of mineral and aggregate resources sites. The comprehensive plan inventory shall consist of three parts:

   a. An inventory of "significant sites" identified through the Goal 5 process as important resources that will be protected from conflicting uses;

   b. An inventory of "potential sites" for which sufficient information concerning the location, quality, and quantity of a resource site is not adequate so as to allow the county to make a determination of significance;

   c. An inventory of "other sites" for which available information demonstrates that the site is not a significant resource to be protected.

4. The location of a mineral or aggregate resource shall be identified as the site of a recoverable source of material. A resource site may consist of all or portions of a parcel, and may comprise contiguous parcels in different ownerships. Identification of a resource site need not include mineral and aggregate reserves that are irrevocably committed to other land uses which are incompatible with surface mining.

5. For an aggregate site to be determined significant, the resource must meet Oregon Department of Transportation specifications for concrete aggregate rock. It is the county's policy to protect the highest quality rock for future use.

6. For an aggregate site to be determined significant, the site must possess a minimum of 250K cubic yards of mineable reserves. It is the policy of the county to protect a variety of large reserves in order to serve the regional market.

7. The significance of non-aggregate mineral resources shall be judged on a case by case basis, taking into account information concerning the commercial or industrial use of the resource, as well as the relative quality and relative abundance of the resource within at least the county.

8. Because material source sites owned or controlled by municipal, county or state government agencies have been acquired for the purpose of maintaining the public road system, and collectively form a network of great importance, the county shall deem such sites presumptively significant. Such sites shall be analyzed along with other significant sites to establish the appropriate level of protection from conflicting uses.

9. The county shall recognize existing surface mining operations as significant resources pursuant to Goal 5, and shall allow existing operations to continue for two(2) years without conforming to the performance standards in the zoning ordinance. Expansion beyond the limits of an existing site shall be in accordance with county zoning regulations. D. 23

10. The scope of an existing or "grandfathered" aggregate operations shall be established by:

    a. Authorization by a county land use approval; or

    b. The extent of the area disturbed by mining on the effective date of this ordinance; OR

    c. The continuous pursuit of a specific mining plan by an operator for not less than five years.

11. In order to maintain the right to continue an existing surface mining operation and bring the county's inventory of mineral and aggregate resources into compliance with Goal 5, an analysis of economic, social, environmental and energy (ESEE) consequences performed for an existing site shall only consider the consequences of potential conflicting uses upon current or future operations, and the consequences of mine expansion on existing or potential conflicting uses.

12. Sites on the "other sites" inventory shall not be protected pursuant to Goal 5.

13. For sites on the "potential sites" inventory, the county shall review available information about mineral and aggregate resources, and if the information is sufficient, determine the site to be significant when one of the following conditions exists:

    a. As part of the next scheduled periodic review;

    b. When a landowner or operator submits information concerning the potential significance of a resource site and requests a comprehensive plan amendment;

    c. When resolution of the status of a potential resource is necessary to advance another planning objective.

14. For each site determined to be significant, the county shall complete the remainder of the Goal 5 process of identifying conflicting uses, analyzing the ESEE consequences of the conflicting use(s), and designating a level of protection from conflicting uses. If the final decision concerning the site is to fully preserve or partially protect the resource from conflicting uses, the site shall be zoned with the Mineral and Aggregate Resources Overlay.

15. When analyzing the ESEE consequences of potential conflicts between a significant mineral or aggregate resource and another significant Goal 5 resource, the county shall consider the protection program adopted for the conflicting resource. Conflicts with other natural resources shall not be the basis for mining restrictions unless the county has included the conflicting resource on the inventory of significant Goal 5 resources, and adopted a resource protection program.

16. The county may consider the effects of surface mining operations on public roads and traffic. Consideration may include review of proposed routes, site distances at access points, roadway width and alignment, and level of service. The county may impose conditions or restrictions directly related to the impact created by surface mining; however, any conditions or restrictions shall not be approval criteria, and shall be applied uniformly to all road users in a manner consistent with the county's transportation plan.

17. In order to approve surface mining at a site zoned for exclusive farm or forestry use, the county shall find, as part of the ESEE analysis, that the proposed activity will not: 1) force a significant change in, or significantly increase the cost of, accepted farming or forestry practices on surrounding lands, and 2) will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

18. The county shall not independently apply the Mineral and Aggregate Resources Overlay to land within another county, or

within a city or its urban growth boundary. The county shall seek to ensure protection of significant sites where the impact area surrounding the resource extends across jurisdictional boundaries through cooperative agreements with another county or a city.

19. The county shall require increased setbacks, insulation, screening, or similar measures as conditions of approval for any new conflicting use within an impact area surrounding a mineral or aggregate resource site when such measures are deemed necessary to resolve conflicts identified in a site-specific Goal 5 analysis.

20. The county may establish and impose conditions on operation of a surface mine when deemed necessary as a result of a site-specific Goal 5 analysis. Where such conditions conflict with criteria and standards in the Mineral and Aggregate Resources Overlay, the conditions developed through the Goal 5 analysis shall control.

21. As part of the ESEE analysis and decision on the level of protection to be afforded significant mineral and aggregate resource sites, the county shall determine the appropriate post-mining use of the site.

22. The county recognizes the jurisdiction of the Department of Geology and Mineral Industries for the purpose of mined land reclamation pursuant to ORS 517.750 to 517.900 and the rules adopted thereunder.

23. Unless specifically determined on a case by case basis, it shall be the policy of the county, pursuant to ORS 517.830(3), that DOGAMI delay its final decision on approval of a reclamation plan and issuance of an operating permit, as those terms are defined by statute and administrative rule, until all issues concerning local land use approval have been adjudicated by the county.

24. No surface mining or processing activity, as defined by the zoning ordinance, shall commence without land use approval from the county, and approval of a reclamation plan and issuance of an operating permit by DOGAMI.

25. Land shall not be rezoned to remove the Mineral and Aggregate Resources Overlay until the mineral or aggregate resource is depleted, and the site has been reclaimed.

EXHIBIT 'A'

ORD 93-17
8-11-93

AMEND GOAL 5 QUARRY & MINING ELEMENT OF THE CLATSOP COUNTY COMPREHENSIVE PLAN. ADD THE FOLLOWING:

CLASSIFICATION OF COUNTY MINERAL & AGGREGATE SITES

Primary Sites Requiring QMO Protection

1)	Clatsop County - Clifton	S17,T8N,R6W	rock
2)	Clatsop County - Big Creek	SW,S29,T8N,R7W	gravel
3)	Howard Johnson - US 101	S4,T5N,R10W	rock
4)	Bayview Transit Mix - US 101	SW4,NW9,T5N,R10W	basalt

Primary Sites Requiring Conditional Use Approval

1)	George Ordway	S14,T5N,R10W	basalt
2)	Teeven Bros. Logging	NW,S27,T8N,R6W	rock
3)	Daren Berg, Humbug Rock	S22,T5N,R8	rock
4)	M. Nygaard Logging	NE,S31,T7N,R9W	rock
5)	A. Riekkola	S18,T7N,R8W	basalt
6)	Tagg	S3,T7N,R10W	sand
7)	Horecny	S23,T5N,R9W	rock

Other Sites

1)	Clatsop County (Anderson Rd-Brownsmead)	SW,S2,T8N,R7W	clay
2)	Howard Johnson	NW,S4,T5N,R10W	rock
3)	Ore State Forestry Dept	NW,S14,23,T4N,R9W	rock
4)	Ore State Hwy Division	S16,17,T5N,R9W	basalt
5)	Ore State Hwy Division	NW,S25,T5N,R8W	basalt
6)	McClean Logging	S28,T7N,R8W	basalt

NAME	DOGAMI PERMIT #	LOCATION					ZONING
		(tax lot)	(section)		(township)	(range)	
Oregon State Forestry Department	04-0001	200	NW¼	16	6N	6W	F-38
Clatsop County	04-0005	900	SW¼	2	8N	7W	EFU
Div. of State Lands Clatsop County	04-0006	3800	NE¼	31	5N	8W	F-38
Boise Cascade	04-0006A	410	NW¼	31	5N	8W	F-38
Crown Zellerbach	04-0007	600	NW¼	4	5N	10W	F-38
Howard Johnson & Sons	04-0011	200	NE¼	4	5N	10W	AF-20
Oregon Portland Cement Company	04-0012	1200	NW¼	19	8N	6W	F-38
State of Oregon Forestry Department	04-0013	1400		14,23	4N	9W	F-38
Oregon State Highway Division	04-0014	200		16,17	5N	9W	F-38
Oregon State Highway Division	04-0015	3300		25	5N	8W	F-38
Archie Riekkola	04-0017	501		18	7N	8W	AF-20
Boise Cascade Corporation	04-0019	100	SE¼	29	8N	7W	F-38
McClean Logging & Construction	04-0020	102		28	7N	8W	F-38
Sunset Crushed Rock Company	04-0021	100	NE¼	29	8N	7W	F-38
Otto Browning	04-0022	100		13	7N	9W	AF-10
Robert J. Tagg	04-0024	200		4	7N	10W	EFU
Clatsop County Road Department	04-0025	200	E½	31	6N	7W	F-38
Clatsop County Road Department	04-0026	1700	E½	17	8N	6W	F-38
Clatsop County Road Department	04-0027	part of road	SW¼	29	8N	7W	F-38

NAME	DOGAMI PERMIT #	LOCATION (tax lot)	(section)	(township)	(range)	ZONING
Crown Zellerbach	04-0028	700	SW¼ 9	5N	10W	F-38
Estoos Property	04-0029	900	2	8N	7W	EFU
Allied J & H Lumber	04-0030	1000	SW of SW¼ 32	6N	7W	AF-20
Crown Zellerbach	04-0031	702	NE¼ 20	8N	6W	F-38
Crown Zellerbach	04-0032	1000	33	6N	10W	F-38
Crown Zellerbach	04-0033	1700	SW¼ 17	5N	8W	F-38
Crown Zellerbach	04-0036	700	10	5N	10W	F-38
Oregon State Highway Division	04-0037	600	SE¼ 19	4N	6W	F-38
Crown Zellerbach	04-0038	200	SE¼ 9	5N	10W	F-38
Crown Zellerbach	04-0039		NE¼ NW¼ 27	7N	9W	F-38
Dave Mullger	04-0043	102	NW¼ 28	7N	8W	F-38
Bob McEwan Excavating	04-0048		E½ 20	5N	10W	F-38
Robert Stevens	04-0049	100	28	6N	10W	F-38
McClean Logging & Construction Co.	04-0050	2800	NW¼ 30	4N	9W	F-38
McClean Logging & Construction Co,	04-0051	2400	NE¼ 22	5N	8W	F-38
Mann & Parker	04-0052	100	NW¼ NE¼ 12	7N	9W	F-38
J.C. Compton Company	04-0053	300	35	8N	6W	F-38
Oregon State Highway Division	04-0055	500	3	4N	7W	F-38
George Ordway	04-0056	1203	14	5N	10W	AF-20

Wildlife Habitat

Each bird, mammal, reptile and amphibian has its own habitat, a complex set of environmental conditions, to which it is adapted and which it requires for its continued survival. Food, water, vegetative cover and other natural features necessary for shelter, escape, and reproductive needs must be present in the type of quantity and distribution required by a species of animal. Loss of habitat need not be total to exclude an animal from a particular area; at times, the loss of one critical element is sufficient. The key to maintaining a diverse and abundant wildlife is the provision of diverse habitats suited to the needs of a wide variety of species.

All undeveloped land and water areas contribute to the habitat needs of one or more wildlife species. However, certain habitats are of particular importance. This report focuses on those sensitive habitat areas that are important or essential to the maintenance of wildlife populations.

Big Game

"The Fish and Wildlife Habitat Protection Plan for Clatsop County", prepared by the Oregon Department of Fish and Wildlife in 1976, includes the following population estimates for big game in Clatsop County, in 1974: Roosevelt elk, 13,200, Blacktail deer, 30,100; Black bear, 1,600; and Cougar, 50. The Department of Fish and Wildlife estimates that Clatsop County's spring elk population peaked in 1973 with a herd of 13,500 elk. Since that time the population has fluctuated, but gradually declined to a population of approximately 10,500 in 1980. The Oregon Department of Fish and Wildlife's management objective for the County is a spring population of 7,800 elk.

The basic habitat requirements of big game include food, water, cover and freedom from harassment. These requirements are met largely in and adjacent to the forested areas of the County where timber harvest has resulted in mixed stands of mature forest, brushland and clearcuts. Important habitat includes forest opening with a southern exposure and bottom lands where adjacent forest and riparian vegetation provide cover. Generally, clearcuts up to about ten years of age are preferred since forage production in these areas is highest. Due to forest management practices, these areas are always shifting and therefore the pattern of big game use of various areas also shifts. Older conifer stands are important in providing cover for escape and from the extremes of weather. Elk in particular require stands of trees large enough to provide complete concealment.

The Oregon Department of Fish and Wildlife classifies areas within the County as Major Big Game Range, Peripheral Big Game Range, and Excluded - Range. Major Big Game Range is defined as that portion of the county which supports the majority of big game. In general, these lands are sparsely developed forest lands. They also provide the majority of big game recreational opportunity. Peripheral Big Game Range is defined as foothill areas of the County, generally located betwen commercial forest lands and productive agricultural lands. These lands support substantial big game populations and serve as wintering area for animals from Major Range Areas in severe winters. Conflicts exist between big game and other uses and these

conflicts limit management options and recreational opportunities. The Peripheral Big Game Ranges were of equally high value as Major Big Game Range areas prior to their more intensive development. Excluded Range areas are developed areas that are only occassionally used by big game.

In Clatsop County, by far the largest of the three types of habitat is the Major Big Game Range. It corresponds very closely with the forest land of the County. The Peripheral Big Game Range includes the floodplains and adjacent foothills along the Necanicum, Nehalem, Lewis and Clark, Youngs and Klaskanine Rivers, the foothills east of the Clatsop Plains, and the agricultural and developed strip along the Columbia River betwen John Day and Wauna-Westport. The Excluded Range includes the area west of Highway 101, excluding Tillamook Head, the agricultural and developed area between the Lewis and Clark and Youngs River, the City of Astoria and the Columbia River Islands.

The Major Big Game Range includes the Jewell Meadows Wildlife Area in the vicinity of Jewell. This 1,200 acre area is managed to provide habitat and winter food supply for Roosevelt elk. The area also includes a refuge buffer under contract with several private and public landowners. The Wilson Farm is another property managed by the Oregon Department of Fish and Wildlife for big game habitat, primarily elk. Also included within the Major Big Game Range are the following areas cited in the Oregon Natural Areas, Clatsop County report as being of importance primarily because of their habitat values: Old Farm on the Middle Fork of the Klatskanine River and Northrup Creek.

A number of conflicting uses exist for both the Major Big Game Range and the Peripheral Big Game Range (the Excluded Range areas are not considered important habitat for the purposes of this analysis). The majority of the Major Big Game Range is designated Conservation in the Comprehensive Plan and is zoned Forest-80 (F-80) or Forest-38 (F-38). Generally, forest practices are considered compatible with big game habitat. However, the Oregon Department of Fish and Wildlife has identified a number of forest practices that may, under certain conditions conflict with big game habitat. The Department of Forestry and the Department of Fish and Wildlife are presently working on a list of problem areas within the Oregon Forest Practices Act. This process may lead to some modification of the Oregon Forest Practices Act.

The Department of Fish and Wildlife recommends that development within the Major Big Game Range be limited to one dwelling units per 80 acres, or one dwelling unit per 40 acres where clustering is required (experience has shown the Department of Fish and Wildlife that locating structures in close proximity will reduce the overall area of impact on big game range). The Forest 80 (F-80) allows forest or farm dwellings at a density of one dwelling per 80 acres. Other uses allowed are required to support forest management operations or are required to be at a density that will not conflict with big game range. Thus the F-80 zone is consistent with the Department of Fish and Wildlife criteria. The F-38 zone permits a number of uses that have the potential to conflict with big game range. However, the zone contains criteria and standards that insure that devedlopment is consistent with the maintenance of big game range. All the permitted uses are either site-specific uses in conjunction with forest mangement or are of a low intensity, non-conflicting nature, e.g. watershed management, low

intensity recreation, or oil and gas exploration. All uses which have the potential to conflict with big game range are either Review or Conditional uses. These uses include: Farm or forest dwelling, schools, churches and community centers, kennel, veterinary clinic, solid waste disposal site, boarding of horses, portable concrete ready-mix or asphalt batching, and aquaculture. All these uses are subject to review criteria that includes a finding that the use is compatible with the maintenance of big game habitat. Uses that meet this criteria are also subject to siting standards that limit the impact on big game range. Thus the County's F38 zone is also consistent with the Department of Fish and Wildlife guidelines.

The Major Big Game range also includes a limited number of areas that are zoned Agriculture-Forestry 20. The AF-20 zone permits a number of uses that have the potential to conflict with big game range. However, the zone contains criteria and standards that insure that development is consistent with the maintenance of big game range. All the permitted uses are either in conjunction with forest management, or are of a low intensity, non-conflicting nature, (e.g. watershed mangement, low intensity recreation or oil and gas exploration. All uses which have the potential to conflict with big game range are either Review or Conditional uses. These uses include: dwellings, schools, churches, community centers, kenlels, veterinary clinic, solid waste disposal site, boarding of horses, portable concrete ready-mix or asphalt batching, and aquaculture. All of these uses are subject to review criteria that includes a finding that the use is compatible with the maintenance of big game habitat. Uses that meet this criteria are also subject to siting standards that limit the impact of uses on big game range. These approaches limit conflicting uses so that the AF-20 is consistent with the maintenance of big game habitat.

The Major Big Game range also includes some areas zoned Rural-Residential. The County has taken "built and committed" exceptions for these areas. These are areas where relatively dense rural residential development already exists. It is assumed that these areas already experience substantial conflicts between residential use and big game range. Because of these existing conflicts, no additional criteria or standards to protect major big game range in areas that are zoned for rural residential use are proposed.

*The majority of Peripheral** Big Game Range is designed Conservation Forest Lands and Rural Agricultural Lands in the Comprehensive Plan and is zoned Forest-80 (F-80), Forest-38 (F-38), Exclusive Farm Use (EFU) and Agriculture-Forestry (AF-20). The remainder is designated Rural Lands in the Comprehensive Plan and zoned Residential-Agriculture, with lot sizes ranging from one to five acres in size.

* Amended 84-9, May 23, 1984
** Amended 84-10, June 27, 1984

* The Department of Fish and Wildlife recommends that Peripheral Big Game Range be developed at densities of one dwelling unit per 40 acres, or one dwelling unit per 20 acres if clustering is required. The Forest-80 (F-80) zone allows forest or farm dwellings at a density of one dwelling per 80 acres. Other uses allowed are required to support forest management operations or required to be at a density that will not conflict with big game range. Thus the F-80 zone is consistent with the Fish and Wildlife criteria. The F-38 permits forest or farm dwellings at a density of one dwelling per 38 acres. Other allowed uses may have the potential to conflict with big game range. However, the zone contains criteria and standards that insure that development is consistent with the maintenance of big game range (see discussion under Major Big Game Range, page 12 & 13). Thus the F-38 zone is consistent with the Fish & Wildlife criteria for Peripheral Big Game Range. The Exclusive Farm Use (EFU) allows farm dwellings at a density of one dwelling unit per 38 acres. This density is consistent with the Fish & Wildlife criteria for Peripheral Big Game Range. As discussed under the Major Big Game Range above, the Agriculture-Forestry 20 (AF-20) zone is subject to review criteria and siting standards that are consistent with the Department of Fish and Wildlife's criteria of one dwelling per 20 acres.

* Areas zoned Residential-Agriculture are committed to rural residential development. These areas already experience substantial conflicts between residential use and big game range. Because of this existing conflict, no additional criteria or standards to protect Peripheral Big Game Range are proposed in these areas. It should be noted that the built and committed rural residential areas form only a portion of the County's entire Peripheral Big Game Range. More intensive rural development in these areas will not significantly interfere with the overall use of peripheral range areas by big game.

* Amended 84-9, dated May 23, 1984

The Peripheral Big Game Range also includes the majority of the County's agricultural land. These areas are zoned Exclusive Farm Use. They are located primarily in the Brownsmead-Youngs River/Lewis and Clark River and Wahalem River area. Conflicts arise in these areas when big game destroy crops or eat forage that is intended for cattle.

If conflicting residential development is allowed at the densities proposed, additional big game habitat will be degraded or destroyed. Big game will be displaced from these areas to other non-impacted areas, thus placing additional pressure on the remaining habitat area. Loss in habitat may result in a decline of big game populations. This in turn may affect the level of hunting permitted. Since big game hunting generates a substantial amount of income within the County, the County's economy would be affected. However, habitat loss is estimated to be relatively small since it will occur almost exclusively in Peripheral Range areas that already experience a degree of habitat degradation. Some negative social and economic consequences may also result from increased damage to gardens and ornamental vegetation caused by big game animals.

The consequences of not allowing additional residential development, particularly in Peripheral Range areas would be substantial. A large percentage of the County's rural population is centered in these areas. Not allowing further development of areas that the County has shown are committed to rural residential use would result in a reduction of rural residential housing opportunities that have traditionally been available to county residents.

In summary, in Major Big Game Range areas, which consists almost entirely of large forest holdings, the County will rely on the Oregon Forest Practices Act to insure that forest management activities are consistent with the maintenance of big game habitat. The F-80 zone density and uses are consistent with the Department of Fish and Wildlife criteria for maintaining Major Big Game Range. Conditional and review uses in the F-38 and AF-20 zones shall be permitted only if they are shown to be consistent with the maintenance of big game habitat values. Such uses shall also be subject to siting criteria to minimize potential conflicts. Because areas zoned for Rural Residential are already committed to intensive rural development, the County will not adopt additional criteria for managing the conflicts between rural residential development and big game range in these areas.

* " Wildlife management areas owned and managed by the Oregon Department of Fish and Wildlife are currently located at Beneke Creek Road north of Jewell, at Jewell Meadows east of Jewell, and on Highway 26 west of Elsie. These areas attract large number and concentrations of Elk. The consequences of allowing expansion of these areas or establishment of new areas include, but are limited to the following:

  ECONOMIC - increased reforestation costs around these areas, damage to residential landscaping, loss of farm crops, and increased fencing costs.

  SOCIAL - none

  ENVIRONMENTAL - meets the ODFW policy of preserving Elk herds.

  ENERGY - none.

Existing wildife management areas have been placed in an OPR zone. This action does not resolve the conflicts between wildife management areas and adjacent forest, farm and residential property. The County has adopted a "1(b)" approach with respect to the expansion of existing wildlife management areas and establishment of new management areas. This approach is implemented through County-wide Forest

* Columbian White-tail Deer

There are two populations of Columbian White-tail deer in North America. One population is located in Clatsop and Columbia Counties in Oregon and Wahkiakum County in Washington. The other population is located in Douglas County. The Department of Interior classified the Columbian White-tail deer as an endangered species in 1968.

According to the "Columbia White-tailed Deer Recovery Plan", prepared by U.S. Fish and Wildlife in June, 1983, there are approximately 300-395 deer located along the Columbia River. This population is broken down into 5 subpopulations: Puget Island, 50-75 deer; Tenasillahe Island, 30-40 deer; Mainland Washington, 150-200 deer; Wallace Island-Westport, 70-80 deer; and Karlson Island, 8-12 deer. Two of these subpopulations are located entirely in Clatsop County, Tenasillahe Island and Karlson Island. A portion of the Wallace Island-Westport subpopulation is also located in Clatsop County, though it is primarily in Columbia County; the portion in Clatsop County is adjacent to Westport Slough and the Columbia River (southern 1/2 of Section 25, Township 8N, Range 6W, and the northern 1/2 of Section 36, Township 8N, Range 6W, and the southeast 1/4 of Section 36, Township 8N, Range 6W, and that part of northeast 1/4 of Section 1, Township 7N, Range 6W North of Highway 30). The Recovery Plan states that "there have been reports of occassional sightings of Columbia White-tail deer in other areas along the lower Columbia River, but the locations listed above (subpopulations) are believed to contain the only populations of any consequence" (p.9). The Oregon Department of Fish and Wildlife also considers the entire Dant & Russell site, Wauna Mill site and an area north of the Wauna Mill site as important habitat for the Wallace Island-Westport subpopulation. Clatsop County will use the subpopulations identified by the Columbia White-tail Deer Recovery Plan and the expanded ODFW Wallace Island-Westport subpopulation habitat as its definition of Columbian White-tail deer habitat. There have been sightings of Columbian White-tail deer in Brownsmead. At this time it is not considered essential habitat by ODFW and USF&W.

* Amended 84-9, May 23, 1984

* There are no conflicting uses for the habitat located on Karlson Island. The island is part of the Lewis & Clark National Wildlife Refuge which is managed for the protection of wildlife habitat.

There are no conflicting uses for the following portion of the Wallace Island-Westport subpopulation. The area northwest of the Wauna Mill site is forest uplands and is zoned Natural Uplands and Forest-80. An area to the south of Westport Slough and east of thebuilt upon or irrevocably committed area of Westport is owned by Crown Zellerbach and is part of their experimental cottonwood plantation. The site is zoned Forest-80. The activities permitted in these areas are consistent with the maintenance of the Columbian White-tail deer population.

There are conflicting uses for the portion of the Wallace Island-Westport subpopulation habitat located on: 1) the Dant & Russell site and the Wauna Mill site; both sites are zoned for Heavy Industrial use, HI; 2) the 100 acre River Ranch rural residential development zoned RA-1; and 3) the northerly portion of the community of Westport which is zoned RA-1.

The main consequence of allowing the conflicting residential and industrial development to occur is that white-tail deer habitat may be further degraded or destroyed. White-tail deer may be displaced from these areas to other non-impacted areas, thus placing additional pressure on the remaining habitat area. Loss of habitat may result in a further decline in the population of a species that is already considered endangered. In residential areas, some negative social and economic consequences may result from increased damage to gardens and ornamental vegetation caused by deer.

However, the potential adverse consequences will be substantially less than in other areas because the U.S. Fish & Wildlife Service does not consider these areas to be the most essential for securing the Wallace Island-Westport subpopulation. The Wauna Mill site, most of the Dant & Russell site, and most of the community of Westport are not included within the essential habitat delineated in the recovery plan for the Wallace Island-Westport subarea population. As already indicated, the U.S. Fish & Wildlife Service does not consider the existing and planned rural residential development of River Ranch to be a critical factor in its objective to provide "secure habitat" on the remaining portion of the Magruder Ranch.

The consequences of not allowing additional residential, commercial and industrial development would be substantial. The Westport area is an established community that approaches urban area densities. The County has taken "built and committed" exceptions to allow for the future development oflands already committed to non-resource use. The River Ranch subdivision was approved subject to conditions intended to minimize its impact on the Columbian White-tail deer. Not allowing development in committed areas would effectively preclude any additional residential and commercial development, thus limiting any growth of the community. The Dant & Russell site and the Wauna Mill site

* Amended 84-9, Dated May 23, 1984

* The management objective of the U.S. Fish & Wildlife Services is to protect the remaining Columbian White-tailed Deer habitat and remove the species from the threatened or endangered species list. The U.S. Fish & Wildlife Service has determined that the objective of reducing the status of the deer from endangered to threatened can be achieved by maintaining a minimum population of 400 deer consisting of three viable subpopulations, two of which must be located on secured habitat. The deer could be removed from the threatened and endangered species list if a minimum population of 400 deer, consisting of three viable subpopulations distributed in suitably secure habitat, were maintained. Habitat is considered secure if it is free from adverse human activity in the foreseeable future and relatively safe from natural phenomena that would destroy its value. A viable population is one whose intrinsic probability of extinction is relatively low and whose population is large enough to minimize deterious effects of inbreeding. This population has been determined to be 50 for Columbian White-tail deer.

Three populations are considered viable, Puget Island, Mainland Washington and Wallace Island-Westport. Two populations are considered secure, Tenasillahe Island and Mainland Washington. Therefore, there is only one population that is both viable and secure, the Columbian White-tail Deer Refuge in Washington. The U.S. Fish & Wildlife Service feels that it can expand the population of Tenasillahe Island. When this occurs there will be two viable and secure subpopulations and the classification of the deer can be reduced to threatened. Improving the security of the Puget Island or Wallace Island-Westport subpopulations will be required if the deer are to be taken off the list entirely (Karlson Island is considered to small an area to support a viable population). Efforts are underway to secure habitat in both areas, however the Wallace Island-Westport area presents a better opportunity because it is not intensively managed for farming, or heavily populated.

The bulk of the Wallace Island-Westport substation is located in Columbia County. The majority of the habitat is located on the approximately 1,300 acre Magruder Ranch. The Magruder property consists of two distinct elements. A rural residential area of 35 developed acres and 70 ares of potential development. This area is located in Clatsop County. The second portion of the Magruder Ranch comprises approximately 1,250 acres, most of which is being leased by Crown Zellerbach as part of its experimental cottonwood plantation. Discussions with U.S. Fish & Wildlife indicate that they will focus their efforts in securing the Wallace Island-Westport subpopulation on the portion of the Magruder Ranch in Columbia County. Indications are that a cooperative agreement between U.S. Fish & Wildlife, Oregon Department of Fish and Wildlife, Crown Zellerbach and the Magruder Trust has the potential to make this subarea population secure. The USFW believes it can accomplish the objective of securing this population without the rural residential area in Clatsop County if the cooperative agreement is completed. (conversation with U.S. Fish & Wildlife, May 1984).

There are no conflicting uses for the habitat located on Tenasillahe Island. The island is part of the Columbian White-tailed Deer National Wildlife Refuge which is managed for the protection of Columbian White-tail deer habitat.

ended 84-9, Dated May 23, 1984

* are two of the County's prime industrial sites. Not allowing further development on these sites would have a major impact on the County's employment base and economy. An adequate supply of industrialland is particularly important to Clatsop County because of its need to expand employment opportunities.

The County finds that there are substantial negative economic and social consequences of not allowing conflicting uses. Therefore, the County will allow the identified conflicting uses, but will seek to minimize their impact on Columbian White-tail deer habitat. This objective will be achieved in the following manner. First, proposals with a potential substantial impact on Columbian White-tail deer habitat (e.g. subdivisions, dredge material disposal, industrial development, and land clearing of more than one acre) will be forwarded to the Oregon Department of Fish & Wildlife and the U.S. Fish & WIldlife Service for their determination of potential conflicts and their recommendations for measures to remedy those conflicts. The County will implement recommendations received from the U.S. Fish & Wildlife Service and Oregon Department of Fish & Wildlife to the maximum extent feasible, consistent with other land use planning requirements. Second, the County will require that any additional rural residential development at River Ranch be clustered on the more northerly portion of the site. The County will implement any other measures recommended to it, by the Oregon Department of Fish and Wildlife and U.S. Fish & Wildlife, for minimizing the impact of additional rural residential development on Columbian White-tail deer habitat at River Ranch. Third, the County will regulate development along Driscoll Slough to protect wetland and riparian values. Such a policy will also protect habitat important to the Columbian White-tail deer.

* Amended 84-9, dated May 23, 1984

Upland Game Birds

This group of wildlife includes grouse, mountain quail and pigeons. Clatsop County, like most of western Oregon, has a reduced population of upland game birds. Reasons for this decline are varied and complex, but are believed to include chemical manipulation of insects and vegetation, predator increases and changes in habitat. While upland game birds are a product of forested areas, not a great deal is known about managing habitat to increase populations. However, maintaining a wide variety of vegetation appears to be important. Seed and fruit bearing plants such as elderberry, cascara, bearberry and hawthorne appear to be especially important.

The "Fish and Wildlife Habitat Protection Plan for Clatsop County" has identified two sensitive habitat areas for upland birds. Mineral springs and other watering areas are important to band-tailed pigeons. Riparian vegetation along streams is identified as being important for ruffled grouse.

Generally, upland game habitats occur in areas planned and zoned for agricultural and forest use. Normal forest and agricultural management practices and uses permitted in these zones are compatible with the protection of these habitats. The maintenance of riparian vegetation is of particular concern and is dealt with in the section on fish habitat.

Urban and rural development are potential conflicting uses for general upland bird habitat. The Department of Fish and Wildlife considers residential development below a density of one dwelling unit per 20 acres to conflict with the maintenance of upland game habitat. There is no mapping of upland bird habitat. However, if it is assumed to correspond to Major and Peripheral Big Game Range areas, then areas where conflict occur are: Brownsmead, Knappa-Svensen, Klatskanine River, Lewis and Clark River, Necanicum River and Nehalem River areas.

The main consequence of allowing conflicting urban and rural development is that upland game bird habitat may be reduced. Loss of habitat may result in a decline in species population. This may result in reduced hunting activity with reduction in the amount of income that hunting generates in the County.

ENERGY SOURCES

The County's energy sources are discussed in the Energy Conservation element of the Comprehensive Plan.

The band-tailed pigeon returns annually to certain springs in Western Oregon. A pigeon "spring" may be a mineral spring, seep, mudflat and tidal channel in an estuary, ocean beach or exposed mineral soil near a stream. The birds are attracted to water and soil containing concentrations of soluble salts. Use is concentrated in the months of August and September.

Four mineral springs and other watering areas important to band-tailed pigeons have been identified in Clatsop County. Three of these are located within Clatsop County jurisdiction (the third is located on the south spit of the Necanicum River in the City of Seaside). The first site is located in the NE corner of Section 10, Township 7N, Range 5W on the Jewell Meadows Wildlife area. Because this area is managed for wildlife protection, the site is considered protected. The second site is located in the SW corner of Section 4, Township 6N, Range 5W. The site is located on Department of Forestry land. Forest management practices could conflict with the site if proper precautions are not taken. The third site is located in Section 4, Township 5N, Range 6 W, adjacent to the Nehalem River. The site is in private ownership and is zoned F-38 or F-80. The uses permitted in the AF-20 zone which could conflict with the mineral spring are: forestry, facilities necessary for forest operations, forest processing, utilities, single family dwelling, horticultural nursery and aquaculture. The uses permitted conditionally in the AF-20 zone which could conflict with the mineral spring are: forest processing, public and semi-public development, cottage industry, kennel, veterinary clinic, boarding of horses, solid waste disposal site and utilities. Loss of these sites could have a substantial effect on the County's band-tailed pigeon populations, since there are a limited number of springs.

Where the Plan identifies Band-tailed pigeon mineral springs on Conservation-Forest Lands subject to forest operations governed by the Forest Practices Act, the Act and Forest Practices Rules administered by the Department of Forestry will be used to protect the natural values of the Band-tailed pigeon mineral springs.

The County will adopt a sensitive bird habitat overlay zone to protect the band-tailed pigeon mineral springs.

Waterfowl

"The Fish and Wildlife Habitat Protection Plan for Clatsop County" identifies three areas of Clatsop County as being sensitive habitat for waterfowl. These areas are: the dune lakes of the Clatsop Plains, Youngs Bay and the lower Lewis and Clark River, and most of the Columbia River Islands and adjacent shoreland areas. Only a brief summary of conflicting uses for waterfowl habitat is provided here because the waterfowl habitat of Youngs Bay and the lower Lewis and Clark River, and the Columbia River Islands and adjacent shoreland are covered by the County's Estuarine Resources Element (and are described in the CREST Inventory), and the waterfowl habitat of the dune lakes of Clatsop County are described in the County's Coastal Shoreland element.

The filling of wetlands and estuarine areas, the drainage of estuarine and wetland areas, and the removal of riparian vegetation are the main activities which conflict with the maintenance of waterfowl habitat. The consequence of allowing these activities include a reduction in habitat vital to maintaining viable waterfowl populations and possible reduction of recreation activities associated with observing or hunting waterfowl.

There are numerous state and federal programs which limit conflicting uses in sensitive waterfowl habitat. These include Section 404 of the Clean Water Act, the State Fill and Removal Law, and the estuarine and coastal shoreland management program that Clatsop County has developed to implement the Estuarine Resources and Coastal Shoreland Goals. The County will develop a program for protecting riparian vegetation on lands not covered by the Oregon Forest Practices Act.

Furbearers and Hunted Non-game Wildlife

This category of wildlife includes aquatic species such as beaver, muskrat and mink, and terrestrial species such as skunk, bobcat and coyote. "The Fish and Wildlife Habitat Protection Plan for Clatsop County" estimated the County's 1974 population as follows: Beaver 2,630; Muskrat 7,480; Nutria 15,000; Mink 600; River otter 310; Skunk 2,500; Bobcat 2,100; Raccoon 3,000; Rabbits and hares 100,000; Coyotes 4,600. Department of Fish and Wildlife personnel believe these figures to be reflective of 1982 populations as well. Because of the diversity of the species in this category, these animals have a variety of habitat requirements, including various types of forest land, riaparian vegetation and wetlands. Generally areas considered to be Major and Peripheral Big Game habitat are also important for terrestrial furbearers and hunted non-game wildlife while estuarine and coastal shoreland habitat important for waterfowl is also sensitive habitat for aquatic furbearers and hunted non-game wildlife.

The conflicting uses described for big game and upland game also apply to terrestrial furbearers and nongame wildlife. The conflicting uses described for waterfowl also apoply to aquatic furbearers.

The management programs for limiting conflicting uses in big game, upland game and waterfowl habitats are adequate to resolve co nflicts for furbearer habitat.

Non-game Wildlife

This category of wildlife contains small, significant populations of wildlife that generally need protection because of their limited numbers. In Clatsop County the most important species are eagles, hawks, and herons.

The Northern Bald Eagle is considered by both the U.S. Fish and Wildlife Service and the Oregon Department of Fish and Wildlife as a threatened species. A threatened species is defined as any species which is likely to become an endangered species within the foreseeable future through all or a significant portion of its range. The Oregon Department of Fish and Wildlife has identified 20 bald eagle nesting sites in Clatsop County. (The Tongue Point and the two Mill Creek sites are located within the Astoria Urban Growth Boundary). All bald eagle nests are detailed in this report (Table 1), even though a number are located in the Coastal Shoreland planning area. Five of these sites have produced young since 1973. The most productive nest sites have been: Twilight Creek, Tenasillahe Island Site 1, Clifton Channel, and Aldrich Point. With the exception of the recently discovered nests on Tillamook Head, all the sites are located on Columbia River islands, or in close proximity to the Columbia River. The Oregon Department of Fish and Wildlife is particularly concerned by the high failure rate among nesting bald eagle pairs. For example, in 1981 only one

young was produced on the five sites that were used for nesting purposes. In the same year, the success rate in Tillamook County was five young at six nest sites.

The nest and the area adjacent to the nest is considered the most sensitive habitt for bald eagles. Nests are generally constructed in or near the top of tall conifers that are located near large bodies of water. Because eagles may alternate nest sites from year to year, it is important to provide protection to all known nest sites.

The Northern Bald Eagle nests are located in five zones: Forest-38 (F-38), Forest-80 (F-80), Recreational Management (RM), Aquatic Natural (A-4), and Residential-Agriculture 5 (RA-5).

Specific potential conflicting uses contained in these zones are:

Zone	Permitted Uses	Conditional Uses
F-38	1. Forestry 2. Facilities necessary for forest operation 3. Primary processing 4. Mineral & aggregate extraction & processing 5. Low intensity recreation 6. Farm use 7. Utility 8. Aquaculture	1. Forestry processing 2. Mineral & aggregate extraction & processing 3. Utilities 4. Single family dwelling 5. Solid waste disposal
F-80	1. Forestry 2. Mineral & aggregate extraction & processing for forest uses 3. Primary processing 4. Low intensity recreation 5. Grazing 6. Christmas trees 7. Utilities in conjunction with a permitted development 8. Impoundments necessary for forest management.	1. Mineral & aggregate extraction & processing for non-forest uses, or within 500 feet of a residence or a residential zone. 2. Gas or oil exploration or extraction 3. Horticultural nursery 4. Aquaculture 5. Solid waste disposal site 6. Non-forest impoundments
RM	1. Recreation improvements to serve existing visitor capacity	1. Recreation improvements which increase visitor capacity

S-2	1. Low to moderate intensity recreation	1. New dike construction
	2. Agriculture	2. Restoration/resource enhancement
	3. Aquaculture	3. Marine research & educational facilities
	4. Forestry	4. Land transportation facilities
		5. Utilities
		6. Log storage/sorting yard
RA-5	1. Single family dwelling	1. Public/semi-public development
	2. Minor utilities	2. Utilities
	3. Farm uses	3. Mineral & aggregate extraction & processing
	4. Forestry	4. Kennel
	5. Low intensity recreation	5. Airport
	6. Park or playground	6. Public or private recreational areas
	7. Horticultural nursery	7. Farm uses
	8. Duplex	8. Cottage industry
		9. Veterinary clinic

There are two general types of conflicting uses. First, those that result in the destruction of the nest or roosting site. This activity consists primarily of logging or a development that requires the removal of a nest or roosting site. Second, activities which generate a level of disturbance that is sufficient to cause the abandonment of the nest or roost site. A broad range of uses listed above have this potential.

The primary environmental consequences of allowing conflicting uses is the destruction of nesting or roosting sites and the abandonment of nest sites. Loss of abandonment of nest sites would further threaten the survival of species that are already classified as threatened.

The major social consequences of allowing the conflicting uses would be an increased difficulty in the ability of scientists, naturalists and bird watchers to observe and study these birds.

No significant economic or energy consequences of allowing conflicting uses have been identified.

The major impact of not allowing the conflicting uses would be economic. This impact would be in the form of restrictions that would prevent certain areas from being logged. Removing certain areas from the timber base would adversely affect the income availablel to the property owner and decrese the supply of timber available. A decreased timber supply could in turn affect employment, income and available tax revenue. Other activities and uses that are allowed in the zoning designation could also be restricted or prohibited.

The major social consequences of not allowing conflicting uses would be a reduction in certain recreation uses within the vicinity of identified nest sites. These uses include camping, hunting and the use of off-road vehicles.

SITE #	NEST #	T	R	SEC.	¼	LOCATION	OWNER	ZONE	1973	1974	1975	1976	1977	1978	1979	1980	1981
302	IS-6	8N	8W	1		Karlson Island	USF&W								I	I	F
302	IS-7	8N	8W			Karlson Island	USF&W								F	I	I
203	CR-6	8N	8W	13	NE	Calendar Slough	P			I					I	I	I
204	CR-7	8N	8W	14	NE	Svensen	P					I		I	I	I	I
205	CR-8	8N	8W	20	SE	Twilight Creek	P					F	2yg	2yg	2yg	F	1yg
207	CR-10	8N	9W	2	NE	Tongue Point	USCG							I	I	I	I
206	CR-9	8N	9W	14	NW	Mill Creek East	DOF			1yg				I	I	I	F
206	CR-12					Mill Creek West	DOF									F	
208	CR-11	8N	9W	16	SW	Brown's Creek	DOF					A	I	I	I	BD	
300	IS-1	9N	6W	28		Tenasillahe	USF&W		1yg	1yg						I	I
300	IS-2	9N	6W			Tenasillahe	USF&W									I	I
300	IS-3	9N	6W			Tenasillahe	USF&W									I	I
301	CR-3	9N	6W	31	NW	Clifton Channel	DOF						1yg	2yg	F	F	F
301	IS-4	9N	7W	24		Quinn's Island	USF&W								I	I	I
301	IS-5	9N	7W	24		Quinn's Island	USF&W								I	I	I
	IS-8	9N	7W.	24		Quinn's Isl	USF&W									F	I

SITE	NEST #1	T	R	SEC.	¼	LOCATION	OWNER	ZONE	1973	1974	1975	1976	1977	1978	1979	1980	1981
202	CR-4	9N	7W	25	SW	Aldrich Point	DOF			I		A	1yg	I	1yg	F	F
202	CR-5	9N	7W	25	SW	Aldrich Point	DOF								I	I	I
231	CO-23					Tillamook Head										I	F
231	CO-34					Tillamook Head											

DEFINITIONS:

A = Active - Eggs were produced (by best estimate)

F = Failed - No young resulted

I = Inactive - No bird used the nest in that particular year

yg = Young - a young bird was produced

BD = Blow down - The nest or nest tree was blown down

USF&W = US Fish and Wildlife Service

P = Private

USCG = US Coast Guard

DOF = Dept. of Forestry

SOURCE: Oregon Department of Fish and Wildlife

Generally, the nests located on Karlson Island, Tenasillahe Island and Quinn's Island can be considered protected because they are located within the Lewis and Clark Wildlife Refuge or the Columbia White-tail Deer National Wildlife Refuge. The sites that are in Ecola State Park are protected because they are located in a portion of Tillamook Head in which the State Parks Division does not plan to allow or develop intensive types of developments.

Clatsop County will protect bald eagle nest and roost sites through an overlay zone that will require the development of bald eagle nest managmenet plan prior to commencement of an activity or use that is determined to have the potential for affecting an identified site. These plans will be prepared by the Oregon Department of Fish and Wildlife in coordination with the property owner(s), Department of Forestry and Clatsop County. In preparing these plans the Department of Fish and Wildlife will use the "Bald Eagle Mangement Guidelines for Oregon and Washington" prepared by the U.S. Fish and Wildlife Service. The purpose of these guidelines is to maintain the environmental conditions that are required for the survival of bald eagles in the Pacific Northwest. The emphasis is on preventing human disturbances to eagles, particularly during the nesting season. Two zones around the nest are established. A primary zone that protects the most critical area immediately around the nest and secondary buffer zone that seeks to further minimize disturbances during the critical nesting season. The guidelines also address feeding and roosting areas.

Where the Plan identifies Northern Bald Eagle nest sites on Conservation-Forest Lands subject to forest operations governed by the Forest Practices Act, the Act and Forest Practice Rules administered by the Department of Forestry will be used to protect the natural values of the Northern Bald Eagle nesting site.

Osprey

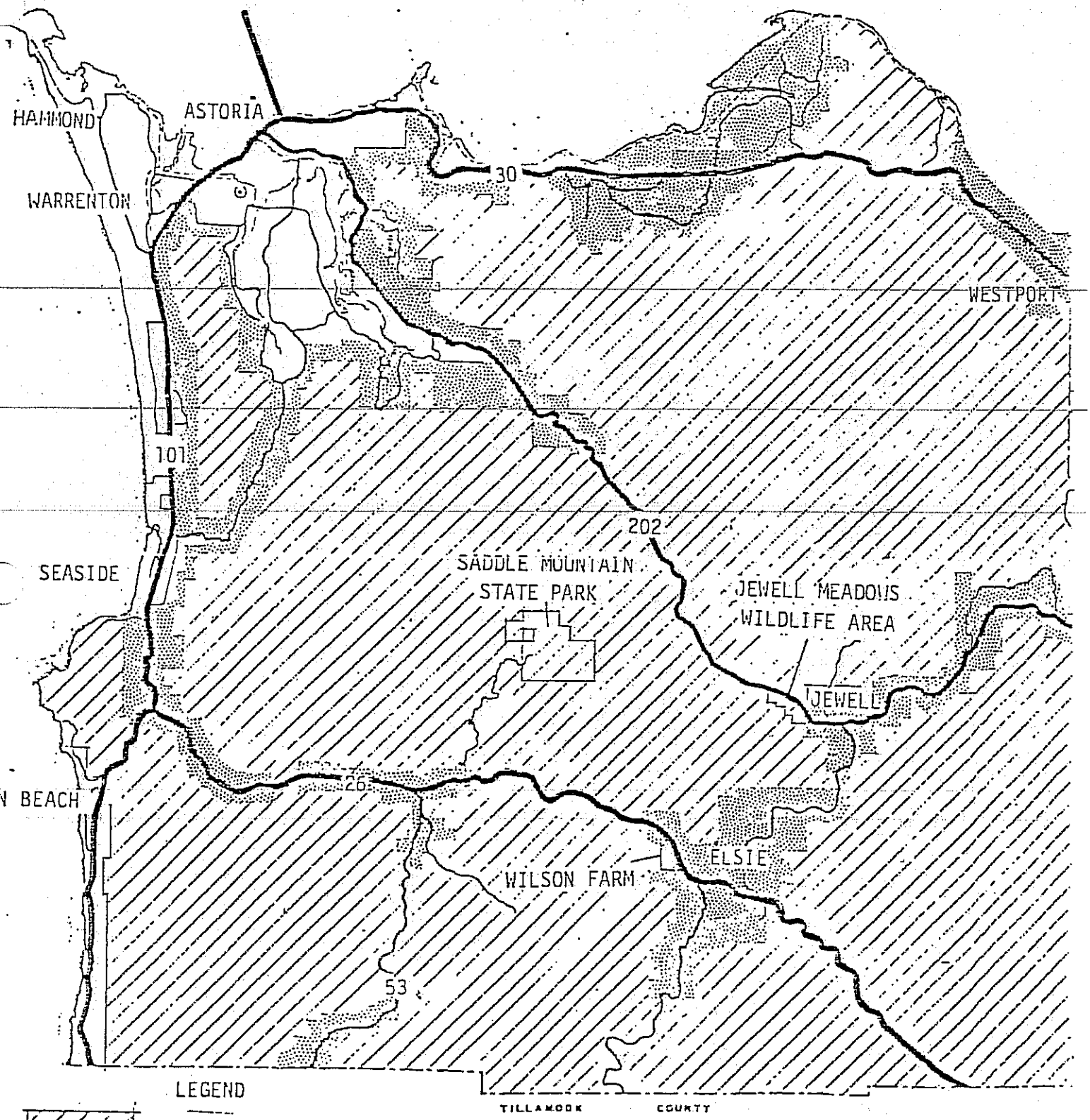
Osprey nests are typically constructed in the tops of dead trees or trees with dead tops. Nests are usually located near large streams, lakes or bays. The nest is usually used for a number of yers. There are two osprey nests in Clatsop County. One is located in the eastern end of 100 acre freshwater wetland that comprises the southern portion of the old Alumax industrial site. The nest is located in the northeast 1/2 of Section 34, Township 8N, Range 10W. Although ospreys are frequent visitors of the area, nesting sites are very rare. Thus it is important to protect the nest site. The nest is located in an area that has been determined to be a significant freshwater wetland. The wetland will be protected through zoning ordinance provisions that will protect the freshwater wetland, as well as the osprey nest. The nest will also be protected through a sensitive bird habitat overlay zone.

The other osprey nest is on private property in the east 1/2 of Section 10, T8, R7, between Ziak Gnat Creek Road and Gnat Creek. The land surrounding the nest is protected by Aquatic Conservation (A-3) zoning. The nest site itself will be protected by a sensitive bird habitat overlay zone.

Herons

Great Blue Herons nest in colonies in tall trees near water, typically a major stream or coastal bay. Colonies can consist of up to 100 nests

Big Game
Habitat Protection
Plan for Clatsop County



LEGEND

MAJOR BIG GAME RANGE

PERIPHERAL BIG GAME RANGE

(Are not considered important habitat)

constructed near the top of the tallest trees available, but rarely less than 80 to 90 feet in height. The nests are used for many years. If a heron rookery is destroyed, the herons may relocate if suitable large trees are available. However, relocated heron rookeries are seldom as large as the original one, and there is evidence to show that nest success in rookeries decreases with a decrease in the size of the colony. Herons have a low tolerance for harassment or disturbances while nesting and will readily abandon their nests.

There are four known heron rookeries in Clatsop County. Two of these are in the Lewis and Clark Wildlife Refuge (Karlsen Island and Welch Island). One is located at Brown's Creek, located in Section 21, T8, Range 9W and is in State Board of Forestry ownership.. The other is on Clatsop Ridge which is located in Section 23, T6, Range 10W and is in Crown Zellerbach ownership.

A survey of Great Blue Heron rookeries undertaken in the spring and summer of 1980 identified ten nests at the Brown's Creek site and 31 nests at the Clatsop Ridge site. Welch Island was found to be inactive and surveyors were unable to approach the site on Karlson Island. A previous 1971 survey identifies 75 nests on Karlson Island and a 1973 survey located 50 nests on Welch Island.

Although Great Blue Herons are abundant in the estuarine and adjacent areas of Clatsop County, it is important that their nesting sites be protected. No conflicting uses have been identified for the nests on Karlson and Welch Island.

The other two sites are zoned Forest-80 (F-80). The permitted uses that could conflict with the use of the heron rookery are: forestry, facilities necessary for forest opertion, forest processing, mineral and aggregate extraction and processing, low intensity recreation, farm use, utilities and aquaculture. The uses permitted conditionally in the F-80 zone which could conflict with a heron rookery are: forest processing, mineral and aggregate extraction and processing utilities, and solid waste disposal site.

There are two types of conflicting use. First, those that result in the destruction of the rookery. This would be the result of logging. Second, activities which generte a level of disturbance that is sufficient to cause the abandonment of the rookery. A broad range of uses permitted in the F-80 zone have this potential although it is unlikely that any would be located at the two sites containing a heron rookery.

The consequences of permitting logging would be the loss of heron nest sites forcing the herons to find new locations. There may be a limited number of such sites available in the area because of previous logging operations. The inability of herons to find suitable nesting sites could, over a number of years, result in a decreasing heron population. Protection of heron rookery sites would remove some forest land from production.

Existing restrictions only require that heron rookeries not be logged during the nesting season, which is between February 1 and July 31. This does not protect the sites.

Clatsop County will protect heron rookeries through an overlay zone that will require the development of a heron rookery management plan prior to commencement of an activity or use that is determined to have the potential for affecting an identified site. These plans will be prepared by the Oregon Department of Fish and Wildlife in coordination with the property owner, Department of Forestry and Clatsop County. The Karlson Island and Welch Island sites will be protected through a sensitive bid habitat overlay zone. Where the Plan identifies blue heron rookery sites (Brown's Creek and Clatsop Ridge) as Conservation-Forest Lands and that are subject to forest operations governed by the Forest Practices Act, the Act and Forest Practice Rules administered by the Department of Forestry will be used to protect the natural values of the Blue Heron rookery sites.

Snowy Plover

The Snowy Plover is a small shorebird that is considered a threatened species by the Oregon Department of Fish and Wildlife. A threatened species being defined as one which is likely to become an endangered species within the forseeable future through all or a significant portion of its range. The bird's breeding season is in May and June. The preferred nesting habitat is the sparsely vegetated, active dune area just inland from the high tide line. Renesting after a disturbance has not been documented. The beach from the Necanicum River north to the Columbia River is considered potential habitat for Snowy Plover, although most recorded nest sites have occurred in the vicinity of the Columbia River.

Since the Snowy Plover nests in sparsely vegetated, unstable sand, the introduction of European beachgrass and the program to stabilize the dune formations on the Clatsop Plains has substantially reduced nesting habitat. Residential development in adjacent areas and recreational use of the beach and dune areas can result in harassment of birds during nesting season. Off-road vehicle use can be particularly detrimental. The consequence of these conflicting uses could be further reduction in both nesting habitat and the success of breeding activity. Eventually, this may result in the Snowy Plover becoming an endangered species.

The County had adopted policies and standards which prohibit residential, commercial and industrial construction in active dune areas, which are the Snowy Plover's most important nesting area. A policy has also been adopted barring the use of off-terrain vehicles in sand dune areas. Snowy Plover nesting areas will be protected through a sensitive bird habitat overlay zone.

The "Fish and Wildlife Habitat Protection Plan for Clatsop County", prepared by the Oregon Department of Fish and Wildlife has identified four sensitive areas for fish and shellfish production. These areas are: rivers and streams estuaries; lakes and reservoirs; and ocean beaches. The estuarine habitat areas are addressed in the County's plan elements dealing with the Columbia River estuary, the Necanicum River estuary, and the Ecola Creek estuary. The ocean beach habitat areas are covered in the County's area-wide plans that have frontage on the Pacific Ocean. Rivers, streams, lakes and reservoirs that are within the Coastal Shoreland planning area are addressed in the County's Coastal Shoreland element. The following inventory pertains to rivers, streams, lakes, and reservoirs that are located outside of the Coastal Shoreland planning area.

All rivers and streams with a perennial flow are considered to be sensitive fish habitat areas. The most important species that these rivers and streams support are: Coho and Chinook salmon, Steelhead, sea-run Cutthroat and Rainbow trout..

Several important states of a salmon's life cycle occur in freshwater streams. The first is spawning, which occurs primarily between October and January. The next stage, lasting from 90-180 days during the winter months, is egg and larvae incubation. Smolt rearing begins during the spring and summer months. This period lasts between two and four months, with half of that period spent in the non-estuarine portions of the stream. The cycle is completed when the salmon returns to spawn, normally at the age of four.

Steelhead are sea-run trout. Although there are varieties that spawn in both winter and summer, only those that spawn in the winter months are found in Clatsop County. The winter steelhead run begins in November with the most abundant portion of the run occurring between January and February. Returning adults have usually spent two to three years as juveniles in freshwater, and two or three years in the ocean.

Sea-run Cutthroat spawn in the smaller streams between December and February. As with Steelhead, sea-run Cutthroat spend at least half their lives in freshwater streams.

The principal anadromous fish spawning streams and rivers in Clatsop County are: Ecola Creek, Necanicum River, Nehalem River, Lewis and Clark River, Klatskanine River, Youngs River, Bear Creek, Big Creek below the hatchery, Gnat Creek and Rock Creek.

There are a number of factors that can lead to a loss of fish habitat or the deterioration of habitat quality. The most significant of these are: low stream flows, elevated stream temperatures, stream sedimentation, chemical or biological stream pollution, and the blockage of a stream through damming by log or debris jams.

Stream quality, and thus its value as fish habitat, is affected by adjacent land use. For the purpose of this discussion, adjacent land uses that could result in potential loss or degradation of habitat quality are considered conflicting uses.

There are three major adjacent land uses or activities that can affect fish habitat quality. These land uses are forest practices, agricultural practices, and commercial, industrial and residential development. Forest practices can affect stream quality in a number of ways. Logging and road building can increase sedimentation which in turn can result in a loss of gravel areas important for the spawning of anadromous fish. High turbidity also affects resident fish populations. The removal of riparian vegetation can result in elevated stream temperature. This in turn affects fish usage and spawning. Removal of riparian vegetation may also speed erosion of stream banks and adjacent areas. The application of herbicides, if allowed to come in contact with the stream, can kill fish. Logging, through removal of forest cover, can aggrevate low stream flows during the summer months.

Forest practices in Oregon are covered by the Oregon Forest Practices Act. The Environmental Protection Agency, in 1979, certified the Oregon Forest Practices Act as being a Best Management Practices with regard to controlling non-point water quality problems resulting from forest management activities. Clatsop County is relying on strict enforcement of the Oregon Forest Practices Act to control forest activities that may adversely affect the fish habitat value of streams and rivers in the County.

Agricultural practices can affect stream quality in a number of ways. Improper grazing and crop planting techniques can result in increased land erosion and sedimentation of streams. Animal manure can increase the level of bacterial pathogens in a stream. Improper application of pesticides, when allowed to enter streams, can injure or kill fish. Removal of water from streams for irrigation purposes can result in aggravated low flow periods that limit a stream's ability to function as fish habitat.

The State Soil and Water Conservation Commission is the implementing agency for the "208" agricultural non-point source water quality program. Clatsop County is relying on the State Soil and Water Conservation Commission program to address agricultural practices that affect the fish habitat value of streams and rivers in the County.

The State Water Resources Department is responsible for the appropriation of water. The County is relying on coordination between the Water Resources Department and the Department of Fish and Wildlife to insure that water rights granted for agricultural purposes are consistent with stream volume levels necessary to maintain fish populations during low flow periods.

Residential, commercial, industrial and recreational uses can affect stream quality in a number of ways. Removal of riparian vegetation can result in elevated stream temperatures and increased stream bank erosion. Removal of water from a stream can aggrevate low flow periods that limit streams functioning as fish habitat. Improper septic tank placement or maintenance can result in stream pollution.

The Oregon State Department of Environmental Quality Sanitarian has established criteria for the placement of septic tanks to insure that septic tank effluent does not affect stream water quality.

The County will establish a program to protect riparian stream vegetation where it is adjacent to residential, commercial or industrial uses.

The construction of dams, by impeding the passage of anadromous fish, can reduce or destroy a substantial amount of habitat. Clatsop County is relying on state and federal regulatory agencies to insure that the construction of new dams do not significantly affect anadromous fish runs.

Activities that affect a stream directly such as gravel removal, occupation of water surface area or stream channelization can also affect the stream's quality as fish habitat. These activities are subject to Army Corps of Engineers and the Division of State Lands permit regulations. Proposals are fully coordinated with resource management agencies through the permit process. This coordination insures that potential conflicts with fisheries resources are minimized.

In addition to the above environmental consequences, conflicting uses that result in loss or degradation of fish habitat can have important economic consequences. Salmon is an important commercial and sports fish. Steelhead, sea-run Cutthroat, and Rainbow trout are important sports fish. Lost habitat will result in reduced runs and reduced income derived from commercial fishing and sports fishing.

As the above discussion indicates, most land uses that involve activities that could affect stream fish habitat values are subject to a state or federal program that can limit the impact of conflicting activities. The County is relying on these programs. The County will also implement a program to protect riparian stream vegetation in non-forest areas.

The study, "Significant Shoreland and Wetlands Habitat of the Clatsop Plains", prepared for the Coastal Shoreland portion of Clatsop County, established criteria for defining the extent of riparian vegetation along rivers and streams. These criteria are also being used to define the extent of riparian vegetation in other portions of the County.

Riparian vegetation is defined as vegetation situated on the edge of the bank of a river or other body of water. Riparian vegetation performs several important functions: it maintains water temperature and quality and thus enhances fish habitat; it provides bank stabilization and thus reduces the occurrence of stream bank erosion that can result in increased stream sedimentation; it provides habitat for the breeding, feeding and nesting of aquatic and upland wildlife species; and it protects the aquatic ecosystem from unnecessary human disturbances. Riparian vegetation can consist of any of the following plant communities; trees and shrubs growing on uplands adjacent to the river or stream; trees and shrubs growing in a wetland; and an emergent marsh or low shrub wetland, except when this is managed for agricultural use. Riprian vegetation is not agricultural crops, land managed as pasture, horticultural or landscaped areas, or unvegetated areas.

For inventory purposes, the zone of riparian vegetation on rivers or river segments with an average annual flow exceeding 100 cubic feet per second (cfs) is defined as fifty feet on either side of the river. On rivers, river segments, or streams with an average annual flow of less than 100 cfs, the zone of riparian vegetation is defined as 30 feet on either side of the river. (The shoreline being defined as the ordinary high water line on a stream or river). However, where the extent of shrub wetlands or forested wetlands adjacent to a river or stream is greater than thirty or

fifty feet, the zone of riparian vegetation is defined to include all of the shrub or forested wetland. Where there is emergent wetland vegetation adjacent to a river or stream, the zone of riparian vegetation is defined to be fifty feet from the landward extent of the emergent wetlands vegetation.

Within the riparian zone, riparian vegetation may extend for all or only a portion of the maximum zone width. Riparian vegetation ends at one of the following:

(1) the fifty foot or thirty foot boundary described above; or
(2) the extent of shrub or forested wetlands; or
(3) fifty feet from the landward extent of emergent wetland vegetation; or
(4) within the zone, riparian vegetation may end at the boundary with non-riparian vegetation; or
(5) at a man-made obstruction, such as a road or a dike which prevents vegetation on the landward side of the obstruction from fulfilling riparian vegetation functions described above.

The County will develop plan policies and zoning ordinance provisions to protect riparian vegetation within the riparian zones.

The inventory of lakes in Clatsop County shall be those identified in the document titled "Lakes of Oregon, Volume 1, Clatsop, Columbia and Tillamook Counties", prepared by the U.S. Department of Interior, Geologic Survey in 1973. According to this report the following lakes outside the Coastal Shoreland planning area contain rainbow trout or cutthroat trout: Big Creek Pond, Fishhawk Lake, Lost Lake, Lost Lake, Spruce Run Lake, Riverside Lake, Soapstone Lake, Carnahan Lake, and Cullaby Lake.

Generally, the uses or developments that result in, or require occupation of water surface areas, removal of riparian vegetation, filling or removal, increased sedimentation, or chemical or biological pollution may conflict with the protection of fish habitat. This would depend on the characteristics of the area and the design of the development being proposed.

The conflicting uses for lakes that are in forest lands (Lost Lake, Lost Lake, Spruce Run Lake, Quartz Lake, Soapstone Lake and Carnahan Lake) are most likely to be the removal of riparian vegetation and increased sedimentation. Forest management activities are covered by the Oregon Forest Practices Act. Clatsop County is relying on strict enforcement of the Oregon Forest Practices Act to control forest management activities that may adversely affect the fish habitat values of adjacent lakes.

The conflicting uses for Big Creek Pond, Fishhawk Lake,and Riverside Lake and Cullaby Lake are the adjacent residential areas. The most likely conflicts will be construction of docks and floats, filling or dredging, removal of riparian vegetation and chemical or biological water pollution. In the case of Fishhawk Lake, the lake was formed as part of the Fishhawk Lake Development

(it is located in both Clatsop and Columbia Counties). A dam was built across the stream resulting in the formation of Fishhawk Lake. Many lots that were platted abut the lake. The platted lots do not contain any riparian vegetation and in fact many single purpose docks and some riprap are located on the lake. Also many houses are located immediately adjacent to the lake. The County does not intend on requiring setbacks from the lake in that the lake is not a natural lake and was formed as part of the housing development.

Allowing conflicting uses without adequate management could result in a loss of fish habitat with a resultant decrease in recreation fishing activity and a decrease in economic activity that is the result of recreational fishing. Conflicting uses may also be expected to result in decreased water quality affecting such non-fishing recreation as swimming.

The construction of docks and moorages is regulated by the Army Corps of Engineers. The Corps permit review process requires that there be full coordination with agencies charged with managing fish resources. Filling or dredging is regulated by the Army Corps of Engineers and the Division of State Lands. Both agencies' permit review process requires that there be full coordination with agencies charged with managing fisheries resources. Water pollution is most likely to occur as the result of inadequate waste water disposal systems. The Department of Environmental Quality Sanitarian has the responsibility for ensuring that residential developments make adequate provisions for waste water treatment. The protection of riparian vegetation on non-forest lands is presently not adequately addressed by existing programs.

For inventory purposes, riparian vegetation around a lake is defined as fifty feet from the lake's ordinary high water line. However, where there is emergent wetland vegetation adjacent to a lake, the zone of riparian vegetation will be measured fifty feet from the landward extent of the emergent wetlands vegetation. The County will develop plan policies and ordinance provisions to protect riparian vegetation with this zone.

The Goal defines a natural area to "include land and water that has substantially retained its natural character and land and water that, although altered in character, is important as habitat for plant, animal, or marine life, for the study of its natural, historical, scientific, or paleontological features, or for the appreciation of its natural features."

This definition overlaps considerably with a number of other Goal #5 inventory elements. These include fish and wildlife areas and habitats, outstanding scenic views and sites, and wilderness areas. Therefore a more restrictive definition of natural areas has been developed. The definition of natural areas used in this inventory is "areas of the natural landscape that are representative of the full range of natural ecosystem communities and their component native species." A natural area is also defined as "types of geologic features which exist in Oregon and are highly unusual or extraordinary, and especially those which demonstrate particularly well the geologic processes which have formed the present landscape." These two definitions are derived from the Oregon Natural Heritage Plan, prepared by the Natural Heritage Advisory Council of the State Land Board.

The Oregon Natural Heritage Program has been established as a vehicle for identifying and preserving the unique biological and geological features of the State. To carry out this objective, the Natural Heritage Advisory Council of the State Land Board has developed the Oregon Natural Heritage Plan.

The Oregon Natural Heritage Plan seeks to develop a program to assure that examples of the full spectrum of Oregon's natural ecosystems and native species are passed on to future generations. Protected areas are to be used for scientific research, educational purposes and nature interpretation. The natural sites can also serve as environmental reference points.

The key element of the Plan is a list of the ecosystems that characterize the State. These ecosystems are divided into four categories: terrestrial; freshwater aquatic; estuarine aquatic; and marine aquatic. A list of unique geological types is also included. The terrestrial and freshwater aquatic ecosystems are described according to nine physiographic provinces. The estuarine aquatic and marine aquatic ecosystems are described for the State in general, as are the unique geologic features.

Each ecosystem is evaluated in terms of its need for protection. A high, medium, or low priority is then assigned. The primary factor in establishing the priority for protection is the immenence of danger that all examples of the ecosystems will be lost to other uses. This factor includes three considerations:

(1) The variety of known, high quality occurances of the element. Generally, the preservation of now rare, but formerly wide spread or common elements is more important than preserving elements which have always been there.
(2) The threat to the remaining sites.
(3) The degree to which existing protected areas cover the element.

Two criteria were used for establishing the priority of unique geologic types, elements that are easily destructible and elements that are important for educational or nature interpretation. A higher priority was given to elements that are easily destructible.

Clatsop County is located in the Oregon Coast Physiographic Region. Within this area 27 terrestrial and 20 freshwater aquatic ecosystems were identified. A number of these ecosystems are in the estuary or coastal shoreland planning area and are not covered by this report. This is also true of all the marine aquatic and estuarine aquatic ecosystems.

The following are the priorities for protection of the terrestrial ecosystems in the Oregon Coast Range Region.

A. High Priority

(1) Western hemlock/swordfern in northern Coast Range.
(2) Old growth Douglas Fir - Western hemlock.
(3) Old growth Douglas Fir - Western Hemlock/Rhododendron-Oregon Grape in northern Coast Range.

B. Medium Priority

(1) Douglas Fir/Salal, 100-150 year old (old burn).
(2) Red Alder stand with two perennial streams.
(3) Hardwood forest of 3rd-5th order stream as low elevation.

C. Low Priority

(1) Douglas Fir, 25-50 years old (old burn).

D. Adequate Representation if Areas Under Study are Established

(1) Noble Fir - Western Hemlock forest - Saddle Mountain.
(2) Pacific Fir - Western Hemlock forest - Saddle Mountain.
(3) Grassbald on Coast Range Mountains - Saddle Mountain.
(4) "Rock garden" community on Coast Range Mountains - Saddle Mountain and Onion Peak.

The following are the priorities for protection of the freshwater ecosystems, not located within the Coastal Shoreland planning area, in the Oregon Coast Range Region:

A. High Priority

(1) Low elevation lake.
(2) Upland marsh.

B. Medium Priority

(1) Tule/pond lily marsh on lake or pond margin.
(2) Vernal pond.

C. Low Priority

(1) Waterfall/pool system on basalt/sedimentary rocks in the Western hemlock zone.
(2) Mid to high elevation permanent pond.
(3) Coast willow wetland.
(4) Cold springs.

D. Adequate representation if area under study is established.

(1) First to third order stream system originating in the True Fir Zone - Saddle Mountain.

The following are the priorities for protection of unique geologic types that may be found in the Oregon Coast Range Region. (Several of these features are located in the Coastal Shoreland planning area.)

A. High Priority

(1) Cave with cold spring and cave fauna.
(2) Fragile mineral location.
(3) Fragile fossil location.
(4) Fragile type localities of formations.

B. Medium Priority

(1) Marine terrace with fossils.
(2) Sand spit.
(3) Major erosion front.
(4) Late Pleistocene flood deposits.
(5) Wave formed pluvial lake features.
(6) Interior sand dune.

Presently there are three major programs that, in combination, provide for the protection of ecologically significant natural areas. These are the federal government's Research Natural Areas, the state's Natural Heritage Conservation Areas, and the Nature Conservancy's Preserves. Clatsop County contains no areas protected by these three programs.

Two areas are proposed for inclusion in the State's Natural Heritage Conservation Area program, Onion Peak and Saddle Mountain.

Onion Peak is a 3,064 foot isolated basalt capped remnant located four miles from the Pacific Ocean. The area under consideration is located in the west 1/2 of the southwest 1/4 of Section 23, Township 4N, Range 10W

(an adjacent area in Crown Zellerbach ownership is located in the East 1/2 of the southeast 1/4 of Section 22, Township 4N, Range 10W). The parcel in State ownership consists of 18.6 acres of State Board of Forestry land and 51.3 acres of State Land Board Common School Fund land. The Crown Zellerbach parcel consists of approximately 30 acres. The establishment of a Natural Heritage Conservation area would protect the following features: Pacific Silver Fir/Western Hemlock forest; fourteen of twenty-eight rare threatened or endangered plant species listed for the Oregon Coast Range; and a "rock garden" community which is not heavily disturbed and contains the above mentioned plants.

Saddle Mountain is a 3,283 foot peak located about ten miles from the Pacific Ocean. A 1,653 acre tract of State land within Saddle Mountain State Park is proposed for inclusion as a Natural Heritage Conservation Area. The parcel is located in Sections 28, 29, 32, 33, and 34 of Township 6N, Range 8 W. A Natural Heritage Conservation Area would preserve the following features: a Noble Fir/Western Hemlock forest; Pacific Silver Fir/Western Hemlock forest; old growth Sitka Spruce forest near the inland limit of its range in Oregon; six plants on the national list of species proposed for threatened or endangered status; a grassbald on a Coast Range Mountain; "rock garden" community on a Coast Range Mountain; a first to third order stream system originating in the True Fir Zone; and geologic formations both unique and representative of the Coast Range.

The report, Oregon Natural Areas, Clatsop County, prepared by the Oregon Natural Heritge Program for the Department of Land Conservation and Development was used as the source for establishing the preliminary inventory of possible natural areas in Clatsop County. Sites that are located within the Coastal Shoreland planning area and the Estuarine Resources planning area are not included.

1. The following sites were deleted because they are located within the Urban Growth Boundaries of cities in Clatsop County:

   a) Deflation Plains south of Peter Iredale (Warrenton).

   b) Chapman Point (Cannon Beach).
   c) Shag Lake (Warrenton).
   d) Wild Ace Lake (Warrenton).
   e) Tongue Point (Astoria).
   f) Fort Stevens State Park and Peter Iredale (Warrenton).
   g) Mill Creek Old Growth (Astoria).
   h) Astoria Old Growth (Astoria).

2. The following sites were deleted because they are covered by the requirements of either the Estuarine Resources Goal or the Coastal Shorelands Goal:

   a) Knappa Slough.
   b) Big and Little Creek Estuaries.
   c) Lewis and Clark River Marsh.
   d) Necanicum River Estuary.
   e) Walluski River Site.
   f) Cooperage Slough.
   g) Klusher Lake.

h) Ecola State Park.
i) Clatsop Beach.
j) Oswald West State Park. (the portion west of Highway 101).
k) Clatsop Spit and Trestle Bay.
l) Russian Point.
m) Sand Island.
n) Tenasillahe Islands.
o) Calendar Slough.
p) Gnat Creek Marsh.
q) Walluskie River Wetlands.
r) Youngs Bay.
s) Tillamook Head Rocks.
t) Unnamed Rocks.
u) Sealion Rocks.
v) Bird Rocks.
w) Haystock Rock.
x) Needles.
y) Unnamed Rock.
z) Jockey Cap.
aa) Lion Rock.
bb) Castle Rock.
cc) Gull Rock.
dd) Lewis and Clark National Wildlife Refuge.
ee) Blind Slough.
ff) Eskeline Creek Marsh.

3. The following sites were deleted because they are covered within the Outstanding Scenic Views and Sites portion of the Open Space Element:

a) Box Canyon.
b) Knappa Gorge on Big Creek.
c) Gnat Creek Falls.
d) Fall Creek Falls.
e) Plympton Creek Falls.
f) Youngs River Falls.

4. The following sites were deleted because they are covered within the Fish and Wildlife Areas and Habitats portion of the Open Space Element:

a) Aldrich Point.
b) Sigfridson County Park.
c) Old Farm on Middle Fork of the North Fork of the Klaskanine River.
d) Jewell Wildlife Meadows.
e) Northrup Creek.
f) West of Lewis and Clark River Eagle Nest.
g) John Day River Eagle Nest.
h) John Day River Eagle Nest.
i) Ivy Station Eagle Nest.
j) Twilight Creek Eagle Nest.
k) Mary's Creek Eagle Nest.

5. The following is a brief description of the remaining sites listed in the Oregon Natural Areas, Clatsop County data book:

a) Bradwood Cliffs. This area consists of a small stand of trees along the steep basalt cliffs rising up from the railroad right-of-way along the Columbia River. The stand consists primarily of a remnant 150-180 year old Douglas Fir/Western Hemlock forest. The area on the plateau to the south of the site has been logged within the last five years (approximately 150 acres). The property is in Crown Zellerbach ownership. Because of the site's steep slopes and isolated location, Crown Zellerbach does not intend to log the site. The property is located in Sections 9 and 16 of Township 8 N, Range 6...

b) Walker Creek Old Growth Forest. At the time of the Nature Conservancy inventory, this site consisted of approximately 600 acres. At that time it was perhaps the most extensive, highest quality remaining stand of old growth Douglas Fir/Western Hemlock forest in the northern Oregon Coast Range. It contained three distinctive types: old growth Douglas Fir/Western Hemlock; mixed conifers with Sitka Spruce along the drainage bottoms (the site is at about the inland limit of the Sitka Spruce zone); and undisturbed riparian Red Alder and Big Leaf Maple on lower stream terraces. As an old growth forest, the site represents potential habitat for the Northern Spotted Owl. However, no owls have been reported on the site. Since the initial Nature Conservancy inventory a substantial portion of the site has been logged. The remaining 215 acres have been roaded, with the largest remaining contiguous parcel being approximately 40 acres. This area is slated for logging in the near future. Approximately 35 acres of riparian alder/Big Leaf Maple remain along a tributary of Walker Creek. This site includes a hardwood forest on a 3rd-5th order stream at low elevation and a red alder stand with two perrenial streams. Fifteen acres of the site are State Board of Forestry land. The remaining acreage is in Longview Fibre ownership. The parcel is located in Sections 7 and 18 of Township 6N, Range 6W.

c) Elsie County Park. The park consists of 80 acres of mature Douglas Fir forest with islands of hardwoods. A thick canopy of hemlock is developing beneath the stand of Douglas Fir, an example of the successional trend in the Western Hemlock zone. The quality of the site is decreased because it is bisected by Highway 26. There is also a pioneer cemetary, Sunnyside Cemetary, on the southeast portion of the site. The site is in Clatsop County ownership and is located in Section 32, Township 5N, Range 7... The deed transferring the property to Clatsop County prohibits logging.

d) Old Growth Forest at Grassy Lake Creek and Necanicum Road. An older remnant Sitka Spruce/Western Hemlock forest that has been logged. The site is located in Sections 29-32 of Township 4N, Range 9W.

e) David Douglas County Park. This site is located along Highway 26, east of Saddle Mountain. The site is located in both the Western Hemlock and the Pacific Silver Fir zone. The site has been subject to a variety of disturbances, including some logging (as evidenced by the remains of large stumps). Only a small segment can be considered fairly representative of an old growth forest. These areas consist of stands of 250-400 year old hemlock with an understory of second growth hemlock. The Nature Conservancy evaluation concluded that the area is too small and disturbed to be a quality element. The park is located in Section 21, Township 5N., Range 8W and is in Clatsop County ownership.

f) Onion Peak. This is an isolated basalt capped remnant peak, the highest in the area at 3,064 feet. Near its summit is a small remnant of the original Pacific Silver Fir-Western Hemlock forest. There is also a grassy bald and "rock garden" community at the summit. Fourteen of the twenty-eight rare, threatened, or endangered plant species listed for the Oregon Coast Range are found on the peak. Most of the accessible timber has been cut. The site contains a number of terrestrial ecosystems identified as needing protection in the Oregon Natural Heritage Plan. These are: Pacific Silver Fir-Western Hemlock forest; grassy bald on a Coast Range Mountain; and "rock garden" community on a Coast Range Mountain. Onion Peak is also a unique geologic feature. The site is located in the west 1/2 of the southwest 1/4 of Section 23, Township 4N, Range 10W. The portion located in Section 23 is in State ownership(18.6 acres of State Board of Forestry land and 51.3 acres of State Land Board Common School Fund land). The portion located in Section 22 is in Crown Zellerbach ownership and consists of approximately 30 acres. The Natural Heritage Advisory Council has proposed that the state ownership be designated as a Natural Heritage Conservation Area. The Department of Forestry has classified 54 acres as protective conservancy. The Nature Conservancy in 1982 negotiated a conservation easement with Crown Zellerbach. This easement protects the natural values of the site. The agreement provides that a 1/4 acre parcel may be used for a transmission facility.

g) Sugarloaf Mountain. This is a ten acre site at the summit of Sugarloaf Mountain, a 2,953 foot peak consisting of intrusive basalt that has resisted erosion. The summit contains a small grass bald

and rock garden community that supports a fairly large number of rare, threatened, or endangered plant species listed for the Oregon Coast Range. Areas below the summit have all been logged. The site contains a number of terrestrial ecosystems identified as needing protection in the Oregon Natural Heritage Plan. These are: a grassy bald on a Coast Range Mountain and rock garden community on a Coast Range Mountain. The Sugarloaf Mountain summit could also be considered as a unique geologic feature. There is a small radio receiving and transmitting facility located on the site. The site is located in Section 1, Township 4N, Range 10W and is in Crown Zellerbach ownership.

h) Upper Youngs River. The area described is the drainage basin of the upper portion of the Youngs River and includes Saddle Mountain, Green Mountain and Snow Point. Aside from the land within and immediately adjacent to Saddle Mountain State Park, the area consists of 2nd and 3rd growth forests managed for timber production. The area is described as Section 1 through 36 of Township 6N, Range 8W. Of this area, approximately 2,500 acres is in State Department of Forestry ownership. The remainder is in Crown Zellerbach ownership.

i) Carnahan Lake. A nine acre lake surrounded by second growth timber in the foothills of the Coast Range. The lake's drainage area is approximately .4 square miles. There is no inflow or outflow. The lake is used for fishing. No water quality data is available for the lake, but the water is generally clear with some aquatic growth. There is a small marsh at the east end of the lake. The Oregon Natural Heritage Plan has identified a low elevation lake as a high priority freshwater aquatic ecosystem. The lake is located in Section 22, Township 7N, Range 10W. The surrounding upland is in small private land holdings.

j) City of Astoria Watershed. The watershed contains 3,400 acres in the upper portion of the Bear Creek drainage. A dam on the creek has created a 28 acre reservoir. Also included in the watershed are two natural lakes, Wickiup and Middle Lake. Most of the land is reforested following logging that was completed in 1954. Fire burned much of the eastern portion of the site. The area is now dominant in brush or alder. The predominant species are second growth Douglas Fir-Hemlock forest, although there are also considerable patches of Red Alder and brush. The watershed is located in Section 7, 18, and 19 of Township 7N, Range 7W, and Sections 1, 2, 11, 12 and 13 of Township 7N, Range 8W. The watershed is owned by the City of Astoria. The site contains two elements in the Oregon Natural Heritage Plan, Low Elevation Lake and Red Alder with two perennial streams.

k) Lost Lake and Spruce Run Lakes. The area includes the 3,600 acre drainage area of Lost Creek and Spruce Run Creek. The entire area is covered by an even-age forest of Douglas Fir which is the result of the Tillamook burn. Lost Lake is a 15 acre lake at about 1,500 feet elevation. The lake supports good recreational fishing. Spruce Run Lake is a shallow two acre lake with a marshy edge. The site includes the following elements listed in the Oregon Natural Heritage Plan: a 25-50 year old Douglas Fir forest (old burn) listed as a low priority terrestrial ecosystem; a low elevation lake listed as a high priority freshwater aquatic ecosystem; a low elevation lake listed as a high priority freshwater aquatic ecosystem. The site is located in Section 17-21 of Township 4S, Range 7E. Approximately 1,080 acres of the site is in State Board of Forestry ownership. The remainder of the ownership is Burlington Northern and Longview Fibre, with the area adjacent to the two lakes being in Burlington Northern ownership.

l) Grassy Lake. Although Grassy Lake shows on several maps, it does not appear on any recent aerial photographs. The lake was apparently formed by a beaver dam which no longer exists. The lake site is located in Section 13, Township 4N, R10W, and is owned by the Boise Cascade Corporation.

m) Klootchy Creek Park. This is a twenty acre Crown Zellerbach park located along the Necanicum River. The park contains a remnant Sitka Spruce forest, including the largest Sitka Spruce in the continental United States. The area is used as a public picnic area and campground. The area has been highly disturbed, with much of the understory eliminated. The area is too small, isolated and abused to be a viable ecosystem. The park is located in Section 14, Township 5N, Range 10W.

n) Saddle Mountain State Park. The site consists of 1,653 acres of State land lying within Saddle Mountain State Park. The elevation of the parcel ranges from 380 to 3,283 feet. The following are the site's principle natural features: a rich and diverse flora, including six species on the national list of species proposed for threatened or endangered status; old-growth Sitka Spruce forest near the inland limit of its range in Oregon; mature Noble Fir and Western Hemlock forests; undisturbed headwaters of creeks with an anadramous fish run; a grassy bald and rock garden community; and a geologic formation that is both unique and representative of the Coast Range. The site contains a number of terrestrial ecosystems identified as needing protection in Oregon Natural Heritage Plan. These are: a Noble Fir-Western

Hemlock forest; a grass bald on a Coast Range Mountain, and a "rock garden" community on a Coast Range Mountain. The site also contains a first to third order stream system originating in the Western Hemlock zone, with anadromous fish. This is listed as an important freshwater aquatic ecosystem in the Oregon Natural Heritage Plan. The site is located in Sections 28, 29, 32, 33, and 34 of Township 6N, Range 8W. The site is managed by the State Parks Branch of the Department of Transportation. The Natural Heritage Advisory Council of the State Land Board has proposed that the site be designated as a Natural Heritage Conservation Area.

o) Bradley Park. The park is a day use facility maintained by the State Parks Department. Most of the area has been cleared for picnic tables, open spaces and a parking area. There are scattered older Douglas Fir (80-150 years old) on portions of the site. There is also a small grove of 40-60 year old Douglas Fir near the entrance of the park. The site is located in Section 16, Township 8S., Range 6W.

p) Big Creek Headwaters. This site comprises 2,560 acres of 2nd growth forest plantations that are approximately 30-35 years old. The northern portion of the site is in the true fir zone. This area constitutes the headwaters of Big Creek. The site is located in Sections 19, 20, 29 and 30 and is in State Board of Forestry ownership.

q) Oswald West State Park. The site consists of the portion of the park that is east of Highway 101. The site is in the Sitka Spruce zone and contains significant stands of old Western Hemlock and Douglas Fir. The site can meet the Douglas Fir/Salal 100-150 year old element of the Oregon Natural Heritage Plan. The site is located in Section 31, Township 4N, Range 10W and in State Parks and Recreation ownership.

r) Nicolai Mountain. The mountain top is the site of the Nicolai lookout and numerous radio transmitting facilities. The area was hand planted, with bough and Christmas tree cutting now occurring. There is little, if any, older growth forest anywhere in Section 17, Township 7N, Range 6W. The site is in the State Board of Forestry ownership.

s) Flat Iron Mountain. This site is comprised of 50% middle-age regenerating Western Hemlock forest, 25% Red Alder, and 25% open grass. The site is located in Section 15 of Township 4N, Range 7W. The site is in State board of Forestry ownership.

t) Nehalem River, Cronin to Gorge Creek. This is the southernmost reach of the Nehalem River in Clatsop County. The extent of riparian vegetation varies along the river. Generally it is second growth or disturbed vegetation. Therefore it does not have significant value as a natural area. A portion is within Spruce Run County Park and another portion is designated by the Department of Forestry as Scenic Conservation. This portion of the river is in Sections 12, 13, 24-27, 34 and 35 of Township 4N, Range 8W. The ownership is primarily State Board of Forestry and Longview Fibre, although there are also a number of small ownerships.

u) McGregor. The headwaters of Olsen Creek consists of a series of ponds and wetlands that have been created primarily by beaver. The south slope consists of hardwoods and shrubs, while the north slope of Olsen Creek is covered with mid-size conifers. The surrounding area consists of regenerating forest. Approximately six acres have been classified by the Department of Forestry as non-commercial. This area is located in a 150-200 foot wide draw that is approximately 1,000 feet long. The site is located in Section 23, Township 4N, Range 6W. It is in State Board of Forestry and International Paper ownership.

v) Lost Lake. This is a 3 acre lake with no discernable inflow or outflow channel. It is a circular-shaped lake surrounded by dead trees and grass. Its perimeter is filled with snags and dead logs. The surrounding forest is second growth. The lake contains some native cutthroat trout and has been stocked with rainbow trout. The lake may meet the criteria for low elevation permanent lake, which is listed as a high priority freshwater aquatic ecosystem in the Oregon Natural Heritage Plan. The lake is located in Section 2, Township 7N, Range 6W. The surrounding area is in Crown Zellerbach ownership and State Board of Forestry ownership.

w) Cullaby Slough.

The Goal #5 Administrative Rule outlines options for sites on the preliminary inventory list: (1) a determination that a site is not important enough to include on the final inventory list; (2) a determination that there is insufficient information available at this time on the location, quality, or quantity of the site to ascertain the significance of the site; and (3) a determination from the information available on the location, quality, or quantity of the site that is important enough to be included on the final inventory.

Sufficient information is available on all sites to determine their quantity, quality and location.

A number of preliminary inventory sites have been determined not to contain sufficient natural area qualities to be included on the final inventory list. These sites fall into a number of groups. The first group consists of 2nd and 3rd growth managed forests. Although the Oregon Natural Heritage Plan lists a 25-50 year old Douglas Fir forest as a low priority terrestrial ecosystem, this type of area was excluded because it characterizes the bulk of forest land within the County and exhibits no substantial natural values described in the Goal definition of Natural Areas. If an example of this type of ecosystem is important for scientific purposes, a site on National Forest land could be designated. The sites included in this category are: Upper Youngs River, Big Creek Headwaters, City of Astoria Watershed, Nicolai Mountain and Flat Iron Mountain.

The Old Forest at Grassy Lake Creek is not included because it has been logged.

Another group consists of lakes. These areas are not included because the preliminary inventory revealed that their significance is in their scenic qualities, or the recreational opportunities they provide. This group includes Carnahan Lake, Lost Lake and Spruce Run Lake. These lakes are discussed in the Fish and Wildlife Habitat section of this report.

The Nehalem River from Cronin to Gorge Creek was excluded because it was determined that its values were largely scenic rather than natural. It is included in the Outstanding Scenic Views and Sites section of this report.

McGregor was excluded because it was determined that its value was as wetland area. The treatment of this site is discussed in the Wetlands section of this report.

II. Final Inventory of Ecologically and Scientifically Significant Natural Areas.

1. Brownwood Cliffs.
2. Walker Creek Old Growth Forest.
3. Elsie County Park.
4. David Douglas County Park.
5. Onion Peak.
6. Sugarloaf Mountain.
7. Klootchy Creek Park.
8. Saddle Mountain State Park.
9. Bradley State Park.
10. Oswald West State Park.

III. Evaluation of Conflicting Uses and Consequences.

The final inventory sites were evaluated to determine if any conflicting uses exist. No conflicting uses were identified for the following sites: Elsie County Park, David Douglas County Park, Klootchy Creek Park, Saddle Mountain State Park, Bradley State Park, Oswald State Prak, Onion Peak and Sugarloaf Mountain. Four of these parks contain ecosystems with insufficient natural values to warrant a Natural plan designtion. These parks (Elsie County Park, David Douglas County Park, Klootchy Creek Prak and Bradley State Park) will be classified as Conservation areas in the Comprehensive Plan and designated Recreation

management in the Land and Water Development and Use Ordinance. A portion of Saddle Mountain State Park has been recommended by the Natural Heritage Advisory Council of the State Land Board for inclusion in the state's Natural Heritage Conservation Area program. This area will be designated in the Comprehensive Plan as Natural and designated Natural Uplands in the Land and Water Development and Use Ordinance. Oswald West State Park shall also be designated Natural in the Comprehensive Plan and Natural Uplands in the Land and Water Development and Use Ordinance.

Conflicting uses have been identified for the Walker old growth forest and Bradwood Cliffs.

Forest practices are not considered to be a conflicting use for the Onion Peak or Sugarloaf Mountain sites because logging operations have removed all accessible and merchantable timber. Further, all of Sugarloaf Mountain and a substantial portion of Onion Peak consist of grass balds and "rock garden" communities that have no value for forest management. The portion of the Onion Peak site in State Board of Forestry ownership has been designated scenic conservation by the Department of Forestry. This designation does not permit logging. The Nature Conservancy has recently obtained a conservation easement from Crown Zellerbach that covers the other portion of the site. This agreement insured the protection of the site's natural values. Sugarloaf Mountain contains a radio transmission facility and the Nature Conservancy easement permits the location of radio transmission facilities on a 1/4 acre portion of Onion Peak. The use of these sites for radio transmission facilities is not considered a conflict with existing natural values, since they are derived primarily from the rare and endangered plants that are located there. These two sites will be classified as natural in the Comprehensive Plan and Natural Uplands in the Land and Water Development and Use Ordinance. However, provision shall be made for the continued use of the radio facility on Sugarloaf Mountain and the placement of a facility on Onion Peak.

The Walker Old Growth Forest site is owned by Longview Fibre. Longview Fibre intends to manage this area for sustained yield timber production, including clear cutting, ramming, and other associated forest practices. Such activities would eliminate the natural values of the site. Permitting forest management activities would result in the destruction of what was once an extensive high quality stand of older growth Douglas Fir/Western Hemlock. (It should be noted that a substantial portion of this area has already been logged since the initial Nature Conservancy Survey). This would mean the loss of a valuable scientific and educational resources. Some short-term environmental impacts would also result, such as the displacement of wildlife species and the removal of vegetative cover.

If forest management is not permitted to occur, 215 acres of the County's forest base would be lost from timber production. In a County that is highly dependent on the forest products industry for both jobs and tax-revenue, the maintenance of prime forest land in forest production is a top priority.

The Walker Old Growth Forest site will be designated Conservation in the Comprehensive Plan and zoned Forest Conservation in the Land and Water Development and Use Ordinance.

Forest management practices are a conflicting use for the Bradwood Cliffs site. Permitting forest management activities would destroy the site's natural values. However, because of the site's steep terrain, it is presently not economically feasible to log the site. Further, because of the fragile soil condition, it may be impossible to effectively replant the site after logging operations. Because of these conditions, Crown Zellerbach does not plan to harvest the site.

The Bradwood Cliffs site will be designated Natural in the Comprehensive Plan and zoned Natural Uplands in the Land and Water Development and Use Ordinance.

The Goal defines scenic areas as "lands that are valued for their aesthetic appearance". This is a very broad definition. A number of other resources listed by Goal #5 would fit this definition, at least in part. These resources include: lands used for agricultural or forest use that are defined as open space; ecologically, scientifically, significant natural areas; wilderness areas; water areas and wetlands; historic structures; potential and approved federal wild and scenic waterways and state scenic waterways; and certain fish and wildlife areas and habitats. Numerous parks within the County could also qualify as scenic resources by this definition. However, the sites inventoried here are only those whose value is derived primarily from their aesthetic features rather than sites where scenic quality may be part of its overall value as a natural area, or historic site or wildlife habitat.

With respect to general scenic character, the County can be defined to consist of two areas, coastal, including the Columbia River, and non-coastal. The coastal area contains a lot of scenic diversity within a narrow one-half mile to five mile wide strip. Within that area the following types of landscapes can be found: beaches, headlands, ocean rocks and dunes, coastal lakes and deflation plains, spits, estuaries, open ocean, rivers and sloughs, forested areas and farming areas. In contrast, the non-coastal area of the County consists entirely of forested mountain ridges and valleys, and river valleys used for various levels of agriculture.

The scenic resources of the County's Coastal areas are addressed in the plan's Coastal Shoreland Element.

A number of uses and activities can be considered to conflict with the two main types of non-coastal scenic landscapes, timbered uplands and river valleys. The County's timbered uplands correspond roughly with the portions of the County that are in timber production. Clear-cutting, road building and other forest management activities may conflict with the scenic qualities of a particular area. The consequence of allowing these forest management practices would be the loss or disruption of a particular view or view corridor. Such a consequence could be considered either social or environmental. No significant energy or economic consequences have been identified. However, by not allowing the conflicting use of forest management a significant economic consequence could result. The forest products industry is the main component of the County's economic base. Any curtailment of forest practices for non-forest production purposes could have an effect on the level of income derived from the forest industry. Reduced income could result in increased rates of unemployment. Also, the tax receipts of local jurisdictions could be decreased thus possibly forcing local government to choose between a decreased level of services or an increase in other types of taxes. Because the timbered uplands of the County are so vast and because the impacts of a particular forest management practice that may affect scenic quality are localized, (and not permanent), the overall effect of forest management practices on the scenic quality of timbered uplands as a whole is not significant (Forest management may have a significant impact on specific scenic resource site discussed below.).

The scenic character of the County's river valleys is derived from their low density pastoral character. The County is taking a number of "built and committed" exceptions in certain river valley areas. These exceptions would allow an increase in rural density. The overall effect of this possible increase in rural density is not expected to effect general scenic qualities because most of the areas are zoned for Exclusive Farm Use or Agriculture-Forestry 20 acre zones.

In addition to general landscape areas, specific scenic resources have been identified. These sites are derived from three sources: Oregon Natural Areas, Clatsop County, prepared by the Oregon Natural Heritage Program; sites identified by the County's Citizen Advisory Committees; and sites designated by the Oregon Department of Forestry as Scenic Conservancy.

I. Preliminary Inventory of Scenic Sites

A. Sites contained in the Oregon Natural Heritage Program study titled Oregon Natural Areas, Clatsop County.

1. Box Canyon. This is a two mile long gorge of the Lewis and Clark River where they join the main river stem. The canyon is about 100 feet deep and its vertical walls consists of basalt. The Crown Zellerbach Lewis and Clark logging mainline runs above the gorge and crosses the river just above the canyon. The surrounding forest is second growth hemlock. The adjacent area is in Crown Zellerbach ownership. Crown Zellerbach anticipates no tree removal within the canyon, except snag removal when requested by the Department of Fish and Wildlife. The site is located in Section 13, Township 6N, Range 10W and Section 18 and 19 of Township 6N, Range 9W.

2. Knappa Gorge at Big Creek. This site consists of the steepest portion of the canyon formed by Big Creek. It extends from the water intake facility for the Big Creek Fish Hatchery to the bridge crossing approximately 1/2 mile upstream. The canyon walls are forested, although the density and the cover varies depending on the steepness of the slope and nature of the soil. The main Boise Cascade logging road, which serves the area's tree farm, follows the west-side of the canyon. The scenic values of this site consists of the Canyon walls and the stream. The site is in Boise Cascade ownership and is located in Sections 28, 29, 32, and 33 of Township 8N, Range 7W.

3. Gnat Creek Falls. This site consists of a series of falls along a fault area. The highest fall is about 80 feet in height. The surrounding forest consists of second growth Western hemlock. The upstream portion is in Crown Zellerbach ownership, including the largest fall. The downstream portion is in State Board of Forestry ownership. The 28 acre parcel in State Board of Forestry ownership has been designated by the Forestry Department as a Scenic Conservancy Area. This designation provides between a 400-900 foot buffer on either side of the creek. Crown Zellerbach has restricted its forest management practices, for its portion of the site, to above the canyon rim. Within the canyon, no logging is permitted except the removal of blow-downs. The site is located in [illegible] Township 7N, Range 5W.

4. Plympton Creek Falls. Plympton Creek Falls lies in a steep forested canyon at the 600 foot elevation of the Coast Range foothills above Westport. The falls are in an area of second growth timber with some remnant old growth Douglas Fir scattered along the slopes of the creek. On the lower slopes, along the stream, are scattered Western Hemlock, Western Red Cedar and Sitka Spruce. Red Alder with an understory of salmonberry and swordfern are found along the stream bottom. A large 75 foot high ridge blocks the canyon and has formed fan-shaped Plympton Creek Falls, which fall 30 feet to a pool and gravel bar. The site contains the following ecosystems and features contained in the Oregon Natural Heritage Plan: Douglas Fir/Salal 100-150 years old and waterfall/pool system on basalt/sedimen tar rock in the Western Hemlock zone. The site does not contain a sufficiently large or intact stand of Douglas Fir to warrant protection for its natural values. The site does have important scenic values associated with the waterfall. The Department of Forestry has designated forty acres around the falls as Protective Conservancy. This area includes the falls and almost all the older timber along the creek. The site is located in Section 2 and 11 of Township 7N, Range 6W and is in State Department of Forestry ownership.

5. Fall Creek Falls. The site is a 20-30 foot high fall on Fall Creek. The surrounding area has been logged, although a natural strip of riparian vegetation has been left around Fall Creek and the falls. Since the site was logged, the State Department of Forestry has placed this section of Fall Creek under a Scenic Conservancy designation. The site is in State Board of Forestry ownership and is located in Section 20, of Township 4N, Range 8W..

6. Youngs River Falls. The Youngs River creates a fifty-five foot water-fall at this point. The surrounding forest cover is mixed with scattered old growth spruce remaining at some locations. Anadromous fish runs stop at the falls. The site was deeded by Crown Zellerbach to the City of Astoria. The deed limits the type of uses to which the city may put the property. The site is located in the NW 1/4 of Section 27, Township 7N, Range 8W.

7. Nehalem River from Cronin to Gorge Creek. This is the southern-most reach of the Nehalem River in Clatsop County. The extent of riparian vegetation varies along the river, but generally is second growth or is disturbed. The ownership is primarily State Board of Forestry and Longview Fibre, although there are also a number of small ownerships. The Department of Forestry has designated a portion of the river Scenic - Conservation. This designation restricts forest management activities that would interfere with scenic value. All of the Nehalem River has been designated as a potential scenic waterway by the State and Federal governments.

B. Sites identified by the Citizen Advisory Committee.

1. Bradley Wayside State Park. This site is considered in the Ecological and Scientific Resources section.

2. Fire Control Tower. This site is considered in the Historic Resources section.

3. Coast Range Foothills-Clatsop Plains. This area is covered in the general discussion of the scenic qualities of timbered uplands.

4. Lewis and Clark Road above Thompson Falls. This area is within the Gearhart watershed.

5. U.S. Highway 101 Scenic Corridor, Cannon Beach Junction to Silver Point. This portion of Highway 101 has been designated a scenic corridor, incorporating a 50 foot buffer on either side of the highway. Within the area, access is limited, no development fronted on the highway is allowed and all uses must be set back in accordance with State Highway Department Regulations.

C. Sites identifed by the Oregon Department of Forestry as Scenic Conservation.

1. Westport-Scenic Conservancy, Highway Corridor. This site is on the south side of U.S. Highway 30 in Westport. It parallels the highway for approximately one mile west of the road leading to the ferry dock.

2. Highway 53 - Scenic Conservancy, Highway Corridor. This site stretches along approximately 2 miles of the North Fork of the Nehalem River along the North Fork Road.

The Goal #5 Administrative Rule outlines three options for sites on the preliminary inventory list: (1) a determination that a site is not important enough to include on the final inventory; (2) a determination that insufficient information is available at this time on the location, quality, or quantity of the site to ascertain the significance of the site; and (3) a determination, from information available on the location, quality, or quantity of the site, that it is important enough to include in the final inventory.

Sufficient information is available on all sites to determine whether or not they should be included in the final inventory. A number of sites are not included on the final inventory because they are more appropriately treated elsewhere. These sites are: Bradley Wayside State Park; and the Fire Control Tower. The Coast Range foothills at the Clatsop Plains are not included because they have already been treated in the general discussion of the scenic qualities of timbered uplands.

II. Final Inventory of Scenic Sites

1. Box Canyon
2. Knappa Gorge at Big Creek
3. Gnat Creek Falls

4. Plympton Creek Falls
5. Fall Creek Falls
6. Youngs River Falls
7. Nehalem River from Cronin to Gorge Creek
8. Lewis and Clark Road above Thompson Falls
9. U.S. Highway 101 Scenic Corridor, Cannon Beach Junction to Silver Point
10. Westport - Scenic Conservancy, Highway Corridor
11. Highway 53 - Scenic Conservancy, Highway Corridor
12. North Fork of the Nehalem - Scenic Conservancy, River Corridor

Evaluation of Conflicting Uses and Consequences

The final inventory sites were evaluated to determine if any conflicting uses exist. No conflicting uses were identified for the following sites: the U.S. Highway 101 Scenic Corridor, Westport Scenic Conservancy Highway Corridor, Highway 53 Scenic Conservancy Highway Corridor, the North Fork Nehalem Scenic Conservancy Corridor, Plympton Creek Falls, Thompson Falls area, and Fall Creek Falls. The Highway 101 corridor is protected by existing State Highway Department regulations. The three Scenic Conservancy sites are located on State Board of Forestry land. As part of their land-use classification program (OSCUR), the Department of Forestry has recognized the scenic value of these sites and designated them scenic conservancy. A scenic conservancy area is one "where scenic values pre-empt all other uses due to aesthetic reasons". No timber harvesting is allowed in areas that have been designated scenic conservancy. The Plympton Creek site is also located on State Board of Forestry land. The Department of Forestry has designated this site as protective conservancy. The Department of Forestry defines a protective conservancy area as one "where resource protection values pre-empt all other uses due to potential or existing ecological problems". No timber harvesting is allowed in areas with a protective conservancy designation. Fall Creek Falls is located in a portion of the area along the North Fork of the Nehalem River designated by the Department of Forestry as scenic conservancy. The scenic conservancy designation protects the site. The County finds that the existing state management requirements are adequate to protect the scenic qualities of these five sites. No additional County requirements or regulations are needed. The Thompson Falls area is located within the City of Gearhart watershed. The City of Gearhart does not propose to undertake any activities within the watershed that could conflict with the scenic character of the site. Therefore, the County designation of this area as Forest-80 is adequate to protect the scenic character of the site.

Two sites have no conflicting uses on a portion of the site and conflicting uses on the remainder. These sites are Gnat Creek Falls and the Nehalem River between Gorge and Cronin Creeks. There are no conflicting uses for the portion of Gnat Creek Falls that is located on State Board of Forestry ownership. The site has been designated scenic conservancy by the Department of Forestry. A scenic conservancy land-use classification does not permit timber harvesting. Forest management practices are a conflicting use for the portion of the site in Crown Zellerbach ownership. However, Crown Zellerbach does not intend to log below the rim of the canyon. Such a policy will preserve the scenic character of the falls. No additional County requirements will be placed on the portion of the site designated scenic conservancy by the Department of Forestry. The site has been designated non-commercial, such a designation will preserve the scenic character of the falls.

* There are no conflicting uses for the portions of the Nehalem River between George and Cronin Creek that have been designated by the Department of Forestry as scenic conservation or recreational use. Forest practices and rural residential developments are conflicting uses to the scenic character of the river for the remaining segments. (Discussion of the Goal #5 Administrative Rule requirements, including ESEE consequences, is found in the Recreational Needs Background Report dealing with Wild and Scenic Rivers). No additional County requirements will be placed on the portion of the site designated scenic conservancy or recreational use by the Department of Forestry. For the remaining river segments, the County will rely on any further Department of Transportation planning process undertaken in considering the possible designation of the Nehalem River as a state scenic river to resolve possible conflicts between scenic values and other land uses along the river. The County will adopt plan policies and development code requirements to protect riparian vegetation on non-forest land. These requirements will aid in protecting the scenic character of the river.

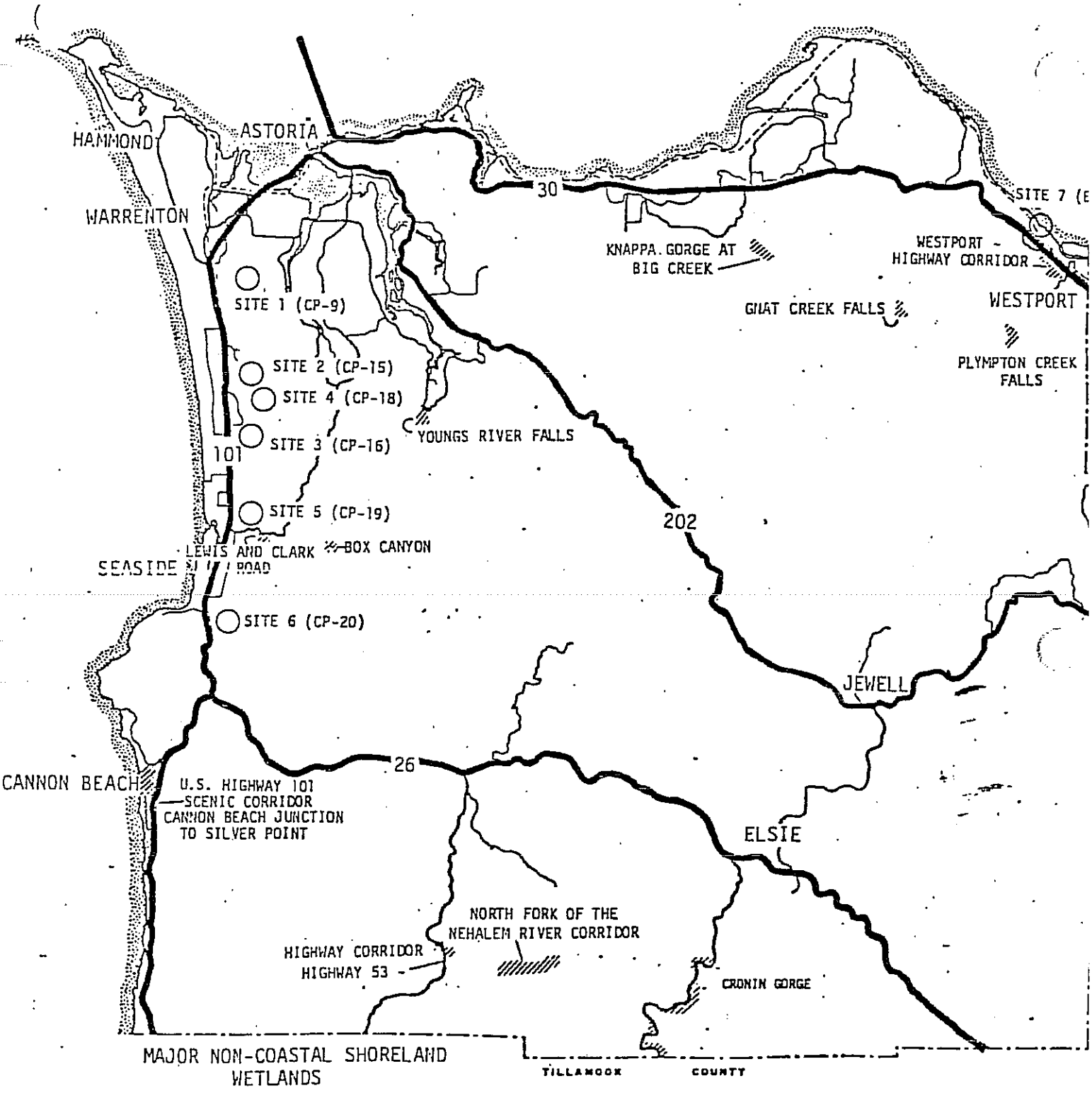
Possible conflicting uses have been identified for three sites (Knappa Gorge on Big Creek, Box Canyon and Youngs River Falls). Forest management activities including logging, have been identified as a conflicting use for Knappa Gorge at Big Creek and Box Canyon. Permitting this conflicting use could degrade the scenic and recreational value of these sites. Not permitting logging to occur would remove these areas from the County's productive forest base.

Forest management activities in the Knappa Gorge on Big Creek site are not contained in Boise Cascade's present five year plan. Because of the cost of removing timber from the gorge and the potential difficulty in replanting the site, timber within the canyon may never be harvested. However, at such time as Knappa Gorge at Big Creek is proposed to be included in Boise Cascade's five year timber management plan, the County and Boise Cascade shall develop a program for resolving any conflicts that may arise between the scenic values of the gorge and proposed forest management activities.

Crown Zellerbach does not intend to log below the rim of Box Canyon. The only operations contemplated would be the removal of blow-downs. The County will designate the area below the rim of Box Canyon as Natural in the Comprehensive Plan, Natural Upland in the Land and Water Use and Development Ordinance.

* Amended 84-9, dated May 23, 1984.

The construction of a hydro-electric project at the Young's River Falls, by the City of Astoria, has been identified as a potential conflicting use. The project under consideration consists of the following elements: a 15 foot high concrete diversion dam with a negligible storage capacity; a 700 foot long penstock; a power house containing two turbine generators with a total capacity of 1,000 kw. and an annual energy production of 7.7 mwh' and 300 feet of new transmission line. Construction of the project could reduce the scenic quality of the site and its recreational use. Conversely, not allowing the construction of the hydro-electrical facility would prevent the use of a reasonably inexpensive and environmentally sound method of increasing the amount of electricity to the area. The County finds that value of the potential energy created by a hydro-electric project far outweighs any potential reduction in the site's scenic value. Therefore, the County has determined that the conflicting use (the hydro-electric project) should be allowed fully, not withstanding the possible impacts on the scenic value of the site.



MAJOR NON-COASTAL SHORELAND WETLANDS

SITE 1 (CP-9)
SITE 2 (CP-15)
SITE 3 (CP-16)
SITE 4 (CP-18)
SITE 5 (CP-19)
SITE 6 (CP-20)
SITE 7 (EC 35)

NORTH

SCALE IN MILES
0 1 2 3 4

Information pertaining to the water areas, watersheds and groundwater resources of Clatsop County are discussed in the Air, Water, and Land Resources Quality Background Report and the Public Facilities Background Report. Where appropriate, the Community Plans element of the Comprehensive Plan also contain information on these resources.

WETLANDS

The Statewide Planning Goals define wetland as "land areas where excess water is the dominant factor determining the nature of soil development and the types of plant and animal communities living at the soil surface. Wetland soils retain sufficient moisture to support aquatic or semi-aquatic plant life. In marine and estuarine areas, wetlands are bounded at the lower extreme by extreme low water; in fresh water areas, by a depth of six feet. The area below wetlands are submerged lands".

Clatsop County contains substantial amounts of wetlands. The majority of these wetlands are either estuarine wetlands, which are covered by the Goal #16 element of the County's Plan, or wetlands found in the Coastal Shoreland which are covered in the Goal #17 element of the County's Plan.

In addition, three other types of freshwater wetlands were identified. The first and most important group consisting of seven major non-coastal shoreland wetlands. These sites are found either immediately east of the "coastal shoreland wetlands" of the Clatsop Plains, or along the Columbia River in areas that are defined to be outside of Oregon's Coastal Zone. The following are descriptions taken from Significant Shoreland and Wetland Habitats in the Clatsop Plains, by Duncan Thomas.

SITE 1 (CP9)

Location: Along the Skipanon River, south of Warrenton and SE of Hwy. 101 realignment.

Size: About 98 acres.

Wetland Vegetation Types: 5, 8, 11 (dry var.) 9.

Riparian Vegetation: About 2,000 ft. x 50 ft. along the Skipanon, north of the wetlands.

Soils: Brallier Muck.

Site Description: This peat bog site has reverted to native wetland vegetation. The Skipanon River, which passes through this site, supports populations of warm water fish. The swamps to the east of the Skipanon are extensively used by elk. The bog area is important habitat for wetland avifauna, and probably supports populations of aquatic furbearers. The site includes an osprey nest.

SITE 2 (CP 13)

Location: Taylor Lake, north of Cullaby Lake.

Size: About 17 acres.

Wetland Vegetation Types: 1A, 1B, 9, 10, 8.

Riparian Vegetation: 2,500 feet x 50 feet wide around the lake.

Soils: Brallier muck, lake sediments.

Site Description: This fairly deep, clear lake supports populations of warm-water game fish and has some use for sport fishing. A forested swamp to the SW within 500 feet of the lake was judged to be significant wetland, and the lake is lined with a forested riparian zone. The forested wetland area is used by deer and elk, aquatic furbearing mammals, and is likely to be important habitat for breeding and feeding of wetland birds. There is also a small marshy area to the east of the lake. The lake was described as Nature Conservancy Site #15 for Clatsop County and the NC also described the surrounding hillside as part of the site. Except for the 50' riparian zone, this hillside was not included in this study, since an evaluation of the natural resources of Clatsop Ridge was beyond its scope.

SITE 3 (CP 14)

Location: Cullaby Lake.

Size: 280 acres.

Vegetation Type: 1A, 5, 8, 9, 11 (dry var.).

Riparian Vegetation: 20,000 feet x 50' wide, particularly on the eastern side of Cullaby Lake.

Soil: Brallier muck, lake sediments.

Site Description: Cullaby Lake has the largest area of any coastal lake in the Clatsop Plains: it appears to be the remnant of a much larger lake or lagoon which has been filling in with peat since its separation from the ocean. It currently has a high level of recreational usage, and supports a recreational warm-water game fishery. It has some value to overwintering and breeding waterfowl. The south end of the lake was described as having a great variety of avifauna by the Nature Conservancy (Clatsop County Site #16). In addition, peat bogs on the western side of the lake within the area were found to be significant. Some of these previously supported agriculture, probably cranberry growing, but have since reverted to scrub or emergent wetlands and are used extensively by wetland avifauna and by raptors.

Values: Warm-water game fishery; waterfowl and wetland birds.

Management: The natural values of the lake should be protected in order to maintain its high recreational value. The riparian vegetation, fringing marshes and significant bog areas should all be protected.

SITE 4 (CP15)

Location: Between Cullaby Lake and Hwy. 101.

Size: About 230 acres.

Wetland Vegetation Types: 5, 8, 9, 11 (dry var.).

Riparian Vegetation: None.

Soils: Brallier Muck.

Site Description: This large peat bog site is a westerly extension of the significant peat bog areas which line the west side of Cullaby Lake. The peat which has filled in a former lake basin has powerful water-retaining properties, and the surface is saturated for much of the year. It can, however, be used for agriculture, particularly cranberry growing, and some of this site appears to have been so-used in the past. It has now reverted to native wetland vegetation. These peat bogs are important to wetland animals, particularly avifauna, and the southern end of this site is extensively used by elk.

Values: Wetland animals, natural semi-natural peat bog wetlands.

SITE 5 (CP16)

Location: east of Hwy. 101 from the south end of the Dellmoor Loop Road south to Palmberg Gravel Works.

Size: about 380 acres (including 15 acres in Gearhart - G3).

Wetland Vegetation Types: 4, 5, 8, 9, 11 (dry var.) 12, 13.

Riparian Vegetation: None.

Soils: Brallier Muck.

Site Description: This site is the best example of a Coastal Peat Bog on Brallier Muck in the County. The northern end approaches the raised bog condition, dominated in places by the moss, Sphagnum, a rare community in this area, and also by various shrubs and stunted trees. To the south, the site becomes much wetter and considerable areas are at least seasonably inundated. The southern half in particular is used by breeding waterfowl, while the central and northern portions have heavy elk use. There is a great diversity of avifauna throughout, including many wetland species despite the scarcity of open water. The site shows evidence of former cultivation, but has since reverted to native wetland vegetation.

Values: Wetland animals, particularly avifauna and elk. The site has high scientific and educational value as a fine example of a peat bog: the past glacial vegetation history of the area is probably contained in fossils in the deep peat.

SITE 6 (CP 18)

Location: 2 small lakes and adjacent wetlands on Cullably Creek, .4000 ft. south of Cullaby Lake.

Size: 160 acres.

Wetland Vegetation Types: 1B, 4, 5, 8, 9, 2.

Riparian Vegetation: about 4,000 ft. x 50 ft. along Cullaby Creek.

Soils: Brallier Muck.

Site Description: This area has great habitat diversity, with open water, marsh and swamp habitats all well-represented. The swamp/upland boundary to the NE of this site was not accurately determined. The lakes are connected to Cullaby Lake via Cullaby Creek and support populations of warm-water game fish. The surrounding marshes and swamps are important to breeding waterfowl and other wetland birds, and have some importance to overwintering waterfowl. The swamp areas are extensively used by elk. The upper part of Cullaby Creek, south of the wetlands adjacent to Cullaby Lake, has about 40 acres of scrub and forested swamps. Since this area is adjacent to the Cullaby Lake wetlands area and shares similar natural values, it is logical to manage the 2 areas as a single unit (see quad sheet).

Values: warm-water fish, breeding wetland; birds, habitat diversity.

SITE 7 (CP19)

Location: North of the road to the Crown site, up to the Palmberg Gravel Co. east of Hwy. 101 and Seaside airport.

Size: about 130 acres (5 acres in Seaside UGB, 9 acres in Gearhart UGB-G4).

Wetland Vegetation Types: 5, 8, 9, also marshes dominated by cat-tails and reed canary grass.

Riparian Vegetation: None.

Soils: Brallier Muck.

Site Description: A system of very wet marshes lining Mill Creek with adjacent swampy areas to the east. These marshes were apparently formed in the past, but the water table has subsequently risen so that the area now supports native marsh vegetation and swamp. The site has a large area of emergent wetland, and is therefore suitable habitat for the breeding of wetland birds, including waterfowl such as mallard, while wood-duck probably nest in the swamps. The area is also extensively used by elk. Populations of aquatic furbearing mammals are probably present.

Values: A large area of emergent and forested wetland, probably an important site for wetland birds and for elk.

Location: Southeast of Seaside; south of the Millponds, east of Hwy 101.

Size: about 132 acres (27 in Seaside UGB - site #S2).

Wetland Vegetation Types: 1B, 2, 5, 8, 9.

Riparian Vegetation: None.

Soils:

Site Description: This headwater swamp on the Neawanna is disected by several small creeks, which support a small natural run of Coho salmon (Maine). The swamps, which also act as riparian zones around these creeks and the Millponds, are important elk habitat, and are important habitat for nesting and feeding wetland bird species, probably including some waterfowl breeding.

Values: Natural wetland values: wetland avifauna, fish, including salmon spawning.

SITE 9 (EC35)

Location: Driscoll Slough marshes, between Wauna Mill and Westport.

Size: about 360 acres.

Wetland Vegetation Types: tidal and non-tidal emergent marshes, blackberry swamp, spruce swamp, willow swamp.

Riparian Vegetation: about 3,500 ft. along the Columbia River.

Soils:

Site Description: These tidal swamps, supporting natural climax floodplain vegetation, are one of the last remnants of a vast system of tidal marshes and swamps which once covered many thousands of acres in Columbia County and the eastern end of Clatsop County as far as Bradley Park. The loss of these and similar floodplain areas was a major reason for the decline of the Columbia White-tail deer. In the Upper Estuary area, in which this site is included, a CREST report notes that 80% of the tidal swamps have been destroyed in the past century. The swamps are laced with tidal sloughs, except for a small area in the NE corner which is cut off from tidal circulation by fills. These tide channels, fringed by forested swamps, are productive warm-water fish habitat, and are also likely to be an important nursery area for juvenile fall Chinook salmon. The area is important to waterfowl and marsh birds and probably supports breeding populations of mallard and wood-duck. A Washington Game Department report identified this habitat type as being of primary importance to aquatic furbearers, such as muskrat, nutria, beaver, river otter, and raccoon. Disturbance at this site includes extensive filling for industrial sites and road and railroad causeways.

The second group of wetlands are those found in conjunction with rivers and lakes. These wetlands are generally identified on maps that were prepared as part of the National Wetlands Inventory undertaken by the U.S. Department of Interior. The County's definition of riparian vegetation has been defined broadly enough to include this group of wetlands. (A more detailed description is contained in the Fish and Wildlife Habitat section of this report.)

The third group of wetlands consists of isolated wetlands, not associated with either a river or lake, that are located on forested uplands. These wetlands are identified on maps that were done as part of the National Wetlands Inventory undertaken by the Department of Interior. These wetlands are few in number and are generally very small in size (one acre or less).

" No conflicting uses have been identified for sites 1 and 2. These sites are unsuitable for rural residential development because of soil characteristics which make the utilization of subsurface wastewater disposal systems infeasible."*

" Sites 3, 4, 5 and 6 (CP 14, CP 15, CP 16, CP 18) do have potential conflicting uses over portions of the sites. Cranberries have been cultivated in the Delmoor Loop Road area for some time. Cranberry cultivation potentially conflicts with wetland preservation. Specifically, such conflicts include removal of wetland vegetation at the bog site, introduction of agricultural chemicals into adjacent wetland areas, oxidation and decomposition of peat soils, alteration of water drainage patterns and water table levels, and disruption of wildlife habitat. An analysis of the economic, social, environmental and energy consequences of cranberry cultivation on these sites follows."*

"A. Economic Consequences."*

1. Benefits:

a. Cranberry production is an intensive agricultural operation which produces income for bog owners and their employees. Cranberry production is a more intensive land use than other agricultural uses found in the county.

b. Cranberry production results in a higher assessed valuation for the property than would be the case if it were left in

* Amended Ord. 84-5, April 11, 1984

wetland, or if it were in another agricultural land use, thus enhancing the County tax base. Fully productive cranberry bogs are assessed as farm land at about $1,400 per acre for the 1983 tax year, while undeveloped wetland areas in general are assessed at about $500 to $600 per acre.

c. Expanded cranberry production in the Delmoor Loop area would strengthen the cranberry sector and both strengthen and diversify the County agricultural economy.

2. Costs:

a. Conversion of wetlands to cranberry production or to other agricultural uses could result in the loss of habitat used by certain economically important species, including elk, fur-bearing animals and waterfowl. This habitat loss could result in a corresponding decline in these animal populations, thus drawing fewer hunters and trappers to Clatsop County. The result would be a slight economic loss for innkeepers, sporting goods store owners, and other merchants who serve hunters, and to individuals engaged in commercial trapping.

b. Removal of wetland vegetation and installation of drainage ditches around bogs may result in the gradual oxidation and decomposition of peat soils on the site. Decomposed peats lose their water retention capabilities, thus increasing the potential for flooding in the area. Wetland soils tend to hold water, thus lowering peak flood elevation.

c. New cranberry bogs may need to be fenced for protection from elk damage. As elk are fenced out of customary feeding areas, they may seek new feeding areas. This may result in increased elk browse damage on adjacent pastures and residential landscaping."

"B. Social Consequences.*

There do not appear to be any significant identifiable social costs or benefits associated with the conversion of wetlands to cranberry bogs."

"C. Environmental Consequences.*

1. Costs

a. Wetland area drainage patterns may be altered by converting wetlands to cranberry bogs. Because natural drainage in this

Amended Ordinance 84-5, April 11, 1984

area has been greatly altered in the past, it is not clear how further alteration will affect wetlands.

b. Water quality may be degraded as a result of contamination by agricultural chemicals associated with cranberry production (herbicides, fungicides, insecticides and fertilizers). Such contamination, if it occurs, would likely occur both on- and off-site.

c. Conflicts with elk may arise if new bogs are not properly fenced.

d. Habitat destruction may result in the decline of certain animal species dependent upon wetland areas.

e. Oxidation and decomposition of peat soils may occur over time because of drainage control in cranberry bogs.

f. The water table may be altered at the site and on adjacent lands by ditching, irrigation and drainage.

2. Benefits.

a. Cranberry production generally preserves high groundwater levels on adjacent wetlands to a greater degree than other agricultural uses.

b. If cranberry production is abandoned, as has occured before in the Delmoor Loop Road area, cranberry bogs will revert back to significant wetlands."

"D. Energy Consequences.*

Energy consequences are considered as costs if they appear to result in a net increase in energy consumption in Clatsop County. Beneficial energy consequences result in net energy conservation.

1.Costs

a. Operation of harvesting equipment consumes energy in the form of gasoline or diesel fuel.

b. Pumping water for frost and heat protection, for irrigation and for harvest flooding consumes energy in the form of electricity.

2. Benefits.

There do not appear to be any significant identifiable energy benefits associated with the conversion of wetlands to cranberry bogs."

Amended Ordinance 84-5, April 11, 1984

An additional* conflicting use has been identified for Site 6. Clatsop County has issued a permit for gravel extraction from the site. The permit did not specify where within the general area the gravel extraction would take place. Allowing the gravel extraction operation to proceed will ultimately destroy about 10 acres of wetlands; thus reducing the overall habitat value of the site. Not allowing the gravel extraction operation would limit the utilization of a resource that is in short supply in the County. The County will protect a 10 acre site for gravel extraction within Freshwater Wetland Site 6. The remainder of the wetland will be protected by a freshwater wetland zone.

" Cranberry cultivation shall be permitted in Goal 5 wetlands in the Delmoor Loop Road area only. This area is described on Map 1 in the Delmoor Loop Area Wetlands Study, adopted here by reference."*
(See Appendix 'A')

A conflicting use has been identified for Site 7. The site has a high degree of industrial development potential. The western portion of the site, adjacent to the present Crown Zellerbach Wauna Mill, represents an opportunity for plant expansion. While the eastern portion of the site, in Dant and Russell ownership, with its excellent access to the main Columbia River channel, is rated an important site for water-dependent development. The site has excellent transportation access. The Burlington Northern Railroad line transects the property and U.S. Highway 30 abuts the property to the south.

Permitting industrial development of Site 7 would result in the destruction of one of the last remnants of the system of tidal marshes that used to extend along this portion of the Columbia River. The wildlife that is dependent on this type of habitat would be displaced. Conversely, if the site is not allowed to develop for industrial purposes, the County would lose one of its prime industrial sites. The County will allow industrial development of Site 7. However, policies will be developed to protect some of the site's wetland riparian characteristics.

* Amended Ord 84-5 April 11, 1984

Conflicting uses, and the consequences of these conflicting uses, for the second group of wetlands, as well as appropriate protective measures are described in the Fish and Wildlife section discussion concerning riparian vegetation.

Forest management practices, including logging operations, have been identified as activities that may conflict with the third group of small isolated forested wetlands. Because of their size, however, these wetlands are not considered to have significant wetland values. Therefore the County is permitting forest management operations.

WILDERNESS AREAS

The Oregon Islands Wilderness is a unit of the National Wilderness Preservation System established under the Wilderness Act. The Oregon Islands Wilderness contains several islands, rock and stacks that are located off the shore of Clatsop County. These islands are: Tillamook Head Rocks, Bird Rocks, Sea Lion Rocks, Haystack Rock, and Castle Rock. In addition, the following islands are to be added to the wilderness: Unnamed Rocks located in Section 12, Township 5N, Range 10W, Jocky Cap, Tim Rock, and Gull Rock.

The primary purpose of the refuge is to provide undeveloped undisturbed nesting habitat for sea birds. Access to the islands is restricted to scientific research under special permit. Management is limited to biological study and wildlife protection.

There are no conflicting uses for these rocks. They have been designated Natural in the Comprehensive Plan and Natural Shoreland in the Land and Water Use and Development Ordinance.

There are no other wilderness areas in Clatsop County.

HISTORIC SITES

The Goal defines historic areas as "lands with sites, structures, and objects that have local, regional, statewide or national historic significance".

Three sources were used for establishing the historic resources in Clatsop County: buildings and sites listed on the National Register of Historic Places; buildings and sites listed on the State of Oregon Inventory of Historic Sites and Buildings; and buildings and sites identified as being important by the local Citizen Advisory Committees.

A total of 19 sites and buildings have been identified: one on the National Register of Historic Places; nine on the State of Oregon Inventory of Historic Sites and Buildings; and nine by the Citizen Advisory Committees.

A number of historic sites and buildings are within the Coastal Shoreland planning area. Where this is the case, a reference is made in the description of the site or building.

I. Preliminary Inventory of Historic Sites

A. Sites and Buildings on the National Register of Historic Places.

1. Fort Clatsop National Memorial

This is the site of the first settlement of American citizens in the Pacific Northwest. Lewis and Clark and their part of overland explorers spent the winter of 1805-1806 at a log stockade constructed on this site. The location helped foster American claims to the Pacific Northwest and was an important factor in the Joint Occupancy Agreements of 1818 and 1827 between Britian and the United States.

The camp has been reconstructed by the National Park Service and includes an interpretaton building as well as housing for staff assigned to the monument.

According to the State of Oregon Historic Sites and Buildings Inventory, the site is historically important to the nation because of its association with overland exploration, government and Indian affairs.

The site is located on Fort Clatsop Road, approximately two miles south of its junction with old Highway 101.

B. Sites on the State of Oregon Inventory of Historic Sites and Buildings

2. Cannon at Arch Cape

The cannon at this site gave its name to Cannon Beach. It drifted into the beach near this site after the wreck of American Naval sloop, Shark, at the mouth of the Columbia River on September 10, 1846.

The site includes two pieces from the wreck of the Shark, a cannon and a capstan.

The wayside includes a state historical marker and is maintained by the State Transportation Department.

According to the State Inventory, the site is historically important to the County because of its association with maritime exploration and military affairs.

The site is located on the east side of Highway 101 between Cannon Beach and Arch Cape.

3. Tillamook Rock Lighthouse

The lighthouse was completed in January of 1881 and was in service until 1957. It formed a portion of the navigation warning system along the northern Oregon Coast at the time.

It is presently in use as a columbarium.

According to the State Inventory, the structure is historically important to the nation because of its relationship to Commerce/Industry and Transportation.

The lighthouse is located west of Tillamook Head, between Seaside and Cannon Beach.

The site is located in the Coastal Shoreland Planning Area.

4. Ecola State Park

Lewis and Clark visited this site on January 8, 1806 during their winter encampment at Fort Clasop. They found Indians butchering a whale that was cast up on the beach.

Indian Beach is the site of an early Indian fishing camp.

The Park also includes Clark's View, a viewpoint that is 1,138 feet above sea level and was visited by Captain William Clark while on a trip to the vicinity of present-day Cannon Beach.

The site is located in the Coastal Shoreland planning area.

5. Lindgren House

The building was originally one of a complex of hand-hewn buildings at Soapstone Lake built by Eric Lindgren, a pioneer of the area. The building is presently located at the County Park at Cullaby Lake. According to the State Inventory, the building has historical significance to the State because of its unique style and relationship to ethnic immigration.

6. Tagg Place or R.W. Morrison Home

The house is one of the oldest on the Clatsop Plains. It was built about 1860 by Robert W. Morrison to replace an earlier home built in 1845-46. Morrison arrived at the Clatsop Plains in 1844. In 1850, Morrison donated the five acres that today comprise the Clatsop Plains Memorial Church and Pioneer Cemetery. The building has been altered. The porch on the west and south elevation has been enclosed with glass. The east side of the house was extended about 40 years ago.

According to the State Inventory, the building has historical significance to the County because of its association with Oregon Trail migration and agriculture.

The building is located near Clatsop Avenue, east of Highway 101 and Camp Rilea.

7. Clatsop Plains Memorial Church

The Clatsop Plains Presbyterian Church was founded on September 19, 1846 by Rev. William H. Grey. The congregations first building was erected in 1849. A second building served until 1927, when the present structure was completed. The present church is a classical-styled brick building. According to the State Inventory, the building has historical significance to the County because of its association with religion.

The church is located in the Coastal Shoreland Planning area.

8. Clatsop Plains Cemetery

The cemetery is one of the earliest, if not the earliest burial place for white immigrants to Clatsop County. Among the prominent settlers buried here are R.W. Morrison and Solomon Smith and his wife, Celiast. Celiast Smith was the daughter of Chief Coboway of the Clatsop Tribe.

According to the State Inventory, the site has historical significance to the State because of its historical association with aboriginal man and religion.

The cemetery is located west of Highway 101, just west of the Clatsop Plains Memorial Church, and south of Clatsop Avenue.

The cemetery is located in the Coastal Shoreland Planning area.

9. The Mill Site of the Falls Pulp Company

Construction of the pulp mill at the base of Youngs Falls on the Youngs River was started in 1884 by R.M. Braynes. In 1886, following the destruction of the first ground wood pulp mill on the Pacific Coast, at Camas, Washington, Braynes obtained the mill stones for his site on the Youngs River. In 1887, the Falls Pulp Company was incorporated. It was the first pulp mill in Oregon and operated until 1904. The pulp mill consisted of a wood frame building with a gable roof and lean-to sheds attached at three elevations. It was located at Youngs River Falls on the Youngs River, of the Youngs River Loop Road.

10. The Shepherd and Morse Sawmill Site

The Westport Lumber Company erected a major sawmill on this site in 1910 and by the 1920's over 400 men were employed. The mill was operated until 1956.

The site which is currently owned by Dant and Russell, is marked by pilings which remain from the old mill location. It is located due east of the Crown Zellerbach pulp mill at Wauna, next to the Westport Ferry landing.

C. Sites Identified by the Citizen Advisory Committees.

1. Camp Rilea - This is a summer camp for National Guard Troops and was named for General Thomas Rilea, an officer of the Oregon National Guard who died in 1959. The site is located in the Coastal Planning Area.

2. Fire Control Tower - This tower, east of Highway 101, was erected to direct the fire of the guns at Battery Russell.

3. Bradwood Sawmill - Named for Walter Woodard and Fred Bradley who operated a sawmill here. The site was first occupied by Henry Hunt who brought his sawmill from Ohio in 1843 and set it up at a nearby falls. The site is located in the Coastal Planning Area.

4. Lewis and Clark Campsite at Knappa - Lewis and Clark camped here on their way to the Pacific. The site is located in the Coastal Planning Area.

5. Old Military Road - This road was surveyed from Astoria to Forest Grove in 1855 and later used as a pack horse trail.

6. Hamlet Cemetery - An old cemetery donated to the community for preservation.

7. World War II Memorial - A memorial naming the Sunset Highway, once the Wolf Creek Highway, it is located at the junction of Highway 53 and Highway 26.

8. Jamisen House - This structure is located at the Jewell Wildlife Meadows.

9. Westport Logging Tunnel - The tunnel for the West Creek Skid road was excavated around 1890 for the logging outfit established by John West, the founder of Westport. The skid road method of moving logs was developed in the Pacific Northwest to deal with conditions of climate and terrain. After the era of ox-team logging, the tunnel was enlarged for a locomotive. The ownership is a combination old Highway 30 right-of-way, private holdings and State Forest land.

The Goal #5 Administrative Rule outlines three options for sites on the preliminary inventory list: (1) a determination that a site is not important enough to include on the final inventory; (2) a determination that insufficient information is available on the location, quality, or quantity of the site that it is important enough to include in the final inventory.

Sufficient information is available for the sites on the National Register of Historic Places and the State of Oregon Inventory of Historic Sites and Buildings to determine that they are important sites. They are all included on the final inventory. Sufficient information is also available on the Westport Log Tunnel.

There is presently inadequate information available on the historical significance of the other sites identified by the Citizen Advisory Committees. The County, over the next two years, will work with the Clatsop County Historical Society and the State Historic Preservation Office to develop additional information about these sites. When this information is available, the County will proceed with the remaining steps of the Goal #5 process contained in Administrative Rule OAR 660-16-000.

II. Final Inventory of Historic Sites

1. Fort Clatsop National Monument
2. Cannon at Cannon Beach
3. Tillamook Rock Lighthouse
4. Ecola State Park
5. Lindgren House
6. R.W. Morrison House
7. Clatsop Plains Memorial Church
8. Clatsop Plains Cemetery
9. The Mill Site of the Falls Pulp Company
10. The Shepherd and Morse Sawmill Site
11. Westport Log Tunnel

III. Evaluation of Conflicting Uses and Consequences

The final inventory sites were evaluated to determine if any conflicting uses existed. No conflicting uses were identified for five sites and buildings. Fort Clatsop National Monument is part of the National Park Services system of National Monuments. The site is managed by the National Park Service to maintain the historical identity of the site. Ecola State Park contains a number of sites associated with the exploration of Lewis and Clark. No park master plan has yet been developed, but a future master plan should give recognition to the historic activities that occurred at the park. The Lindgren House is located at the Clatsop County Park on Cullaby Lake. County Plans call for the on-going maintenance of the building. The mill site of the Falls Pulp Company and the Shepherd and Morse Sawmill are in a unique category. The structures have already been destroyed, and thus there are no conflicting uses.

Conflicting uses have been identified for five sites. Two activities have been identified as conflicting with the maintenance of Tillamook Rock Lighthouse, the Morrison House and the Clatsop Plains Memorial Church. These activities are the demolition of the structure and the alteration of the structure so as to change the historic character. A conflicting use for the Clatsop Plains Cemetery is its conversion to a different use. The Cannon Beach cannon is located in the right-of-way of U.S. Highway 101. A conflicting use would be the widening of Highway 101 that would require the movement of the cannon and capstan.

The major consequence of allowing the conflicting uses identified above would be the loss of an element of the County's cultural and historical heritage. Because the sites are scattered, it is doubtful that they are significant tourist attractions. No significant environmental or energy consequences of allowing conflicting uses or activities have been identified.

CULTURAL AREAS

The Goal defines a cultural area as "an area characterized by evidence of an ethnic, religious or social group with distinctive traits, belief and social form". This definition is interpreted to mean archeological sites of former Indian villages and other activity centers.

Northwest Coastal Indians have lived in the area since at least the fifteenth century. Available research indicates that the Indians typically avoided settling the forested areas because of the difficulty of travel and the relative lack of food resources. Village sites were developed mainly along rivers and bays, or other sites that afforded easy access to fresh and salt water. During the summer months some Indians would migrate inland to hunt deer and elk and collect berries and materials for making baskets. The main types of villages were constructed, permanent winter lodges constructed of cedar planks and less developed inland summer encampments near hunting and gathering areas.

There are 53 known archeological sites in Clatsop County. An inventory of these sites is maintained in confidential status at both the Clatsop County Planning Department and the State Historic Preservation Office. Because of the limited number of archeological surveys undertaken, there are undoubtedly other undiscovered archeological sites in Clatsop County.

Excavation, filling, grading, and other construciton activities in or adjacent to an archeological sites are conflicting uses. The consequence of allowing such conflicting uses without proper review and regulation would be the loss of a significant cultural resource that could enhance the knowledge available concerning the culture of coastal Indians.

Several state and federal laws and statutes pertain to archeological sites. Oregon Revised Statute 97.740 prohibits tampering with Native Indian cairns and graves. Oregon Revised Statute 273.705-742 governs the removal of archeological historical and other valuable materials from state lands. The pertinent Federal laws are PL 96-95, the Archeological Resources Protection Act of 1979 and PL 93-291, Historic and Archeological Data Preservation Act.

POTENTIAL AND APPROVED OREGON RECREATIONAL TRAILS

The County's potential and approved recreational trails are discussed in the Recreational Needs Background Report.

POTENTIAL AND APPROVED WILD AND SCENIC WATERWAYS

The County's potential and approved federal wild and scenic waterways and state scenic waterways are discussed in the Recreational Needs Background Report.

Note: Pages 62-65 were amendments that were added to Goal 8 Recreational Lands Report

Mineral and Aggregate Resources Policies

1. The County recognizes the need for a detailed study of the County's aggregate resources. The County will work with the State Department of Geology and Mineral Industries in initiating such a study.

2. The County will develop a quarry and mining zone to protect important aggregate resource areas.

3. Mineral and aggregate resource sites shall be located and designed so that the potential noise, dust, visual and traffic impact on adjacent residential and commercial uses are minimized.

4. Mineral aggregate resource sites to be located along State Highways shall be designed to minimize their visual impact.

5. New mineral and aggregate extraction operations shall include a restoration program as specified by ORS 517.750 to ORS 517.900.

6. Removal of material from the bed or banks of a waterway shall be governed by the requirements of ORS 541.605 to 541.665.

7. New residential and commercial development should not be allowed within 500 feet of established surface mining operation.

Energy Sources

1. Development shall not be allowed to impair the feasibility of potential wind generating facilities at sites identified as appropriate for such generation.

2. The County will rely on state and federal permitting processes to govern the location of low-head hydro projects and to resolve any conflicts that may result from such projects.

*3 Clatsop County shall apply the Goal 5 Administrative Rule to oil, gas, nuclear, and large-scale hydro that are proposed in the future.

*4. If and when the City of Astoria intends on constructing a hydroelectric facility at the Youngs River Falls site, Clatsop County shall, in cooperation with the City of Astoria, apply the Goal 5 Administrative Rule.

* Amended 84-9, dated May 23, 1984

Wetlands

1. The County will protect identified significant freshwater wetlands, for which no conflicting uses have been identified, from incompatible uses.

2. A ten acre site within Wetland Site 6 shall be provided for gravel extraction.

3. The following requirements shall apply to Wetland Site 7 (which also contains white-tail deer habitat).
   a. All industrial development shall be located north of the railroad right-of-way. The area between the railroad right-of-way and U.S. Highway 30 shall be designated for protection of its wetland characteristics.
   b. Development of land adjacent to Driscoll Slough shall be carried out in a way that will minimize the alteration of riparian vegetation, degradation of water quality and stream sedimentation. Proposed development will be evaluated against the Department of Fish and Wildlife's management objectives of maintaining vegetative cover, particularly riparian vegetation, and the maintenance of corridors that provide for deer movement between habitat areas. Construction of a bridge or other transportation access across the slough shall be the minimum necessary to accomplish the project. Piling is preferred to filling for any access corridor across Driscoll Slough.
   c. Industrial development on the eastern portion of the site shall be designed to minimize or avoid the removal of riparian vegetation along Westport Slough. Riparian vegetation removal shall be permitted where direct access to the water is required.
   d. Filling of the site shall not be permitted until a specific development proposal has been reviewed and approved by the County.

Natural Areas

1. Significant natural and scientific areas and scenic sites should be set aside for preservation and managed so as to protect the unique characteristics of the area.

2. The County will cooperate with appropriate State and Federal agencies and private groups to ensure that examples of the full range of Oregon's natural ecosystem are preserved for future study and enjoyment.

3. A 1/4 acre site, located on the portion of Onion Peak designated Natural, shall be reserved for a potential radio transmission facility. The siting and placement of such a facility shall minimize impacts on the area's natural qualities.

4. The Natural designation for Sugar Loaf Mountain shall not affect the continued operating and maintenance of the radio transmittor facility located there.

Water Resources

1. The County will cooperate and coordinate with State and Federal agencies in assuring the maximum beneficial use of all water areas in the County.

2. The County will coordinate its actions with water quality planning and implementation activities carried out by such state agencies as the Department of Environmental Quality, the Soil and Water Conservation Commission, the Department of Forestry, and the Department of Water Resources.

3. Where municipalities or water districts have identified possible conflicts between forest management practices and the maintenance of the integrity of their watershed, the County encourages these to work with the Northwest Region Forest Practices Committee in the development of amendments to the Oregon Forest Practices Act that will provide needed modification and protection of state licensed water supply systems.

4. The County encourages the development of community dock facilities rather than individual piers or docks.

Historic Sites

1. The County encourages the State Parks Division, when developing a master program for Ecola Park, to give proper recognition to the historical activities that occurred there.

2. The County encourages the State Highway Division to relocate the Cannon Beach Cannon at a suitable new location should Highway 101 widening ever make the present site unsuitable.

3. The County Parks Department, to the extent funding permits, will continue to maintain the Lindgren House.

4. The County encourages the Clatsop County Historical Society and the State Historic Preservation Office to place commerative plaques at the sites of the Falls Pulp Mill and the Shepherd and Morse Sawmill.

5. The Clatsop Plains Cemetery shall be protected from incompatible uses by placing it in the Open Space, Parks and Recreation Zone.

6. The County will protect the historical character of the Tillamook Lighthouse, Morrison House, the Clatsop Plains Memorial Church and the Westport Log Tunnel through appropriate provisions in the zoning ordinance.

7. Clatsop County will work with the Clatsop County Historical Society and the State Historic Preservation Office to evaluate the historical significance of sites and buildings identified by the Citizen Advisory Committee. The Goal #5 Administrative Rule evaluation process will also be applied at that time. The County will take appropriate action to protect any sites that are placed on the State of Oregon Inventory of Historic Sites and Buildings. This will be completed in the next two years.

Cultural Areas

1. The County will review land use activities that may affect known archeological sites. If it is determined that a land-use activity may affect the integrity of an archaelogical site, the County shall consult with the State Historic Preservation Office on appropriate measures to preserve or protect the site and its contents.

2. Indian cairns, graves and other significant archeological resources uncovered during construction or excavation shall be preserved intact until a plan for their excavation or reinternment has been developed by the State Historic Preservation Office.

* Other Policies

Clatsop County shall rely upon the Forest Practices Act and any supplemental agreements between the Fish and Wildlife Commission and the Board of Forestry to protect critical wildlife habitat sites.

* Wilderness Areas

Clatsop County shall work with federal agencies in the protection of federal wilderness areas.

* Watersheds

As information becomes available, Clatsop County shall apply Goal 5 Administrative Rules to the 14 identified watersheds and the small or minor watersheds identified in this element.

* Amended, 84-9, dated May 23, 1984

3. Amend 54.404, Rock and Mineral Resource Use Standards, standard 3 to read:

   3. Appropriate provisions shall be made for the reclamation of the site for a use consistent with the Comprehensive Plan. The requirements of ORS 517.750 to 517.900 shall be met.

4. Add a ~~Quarry and Mining Zone. (See proposed 80-14 amendments).~~

5. Amend the zone requirements for aggregate sites from 50 feet to 500 feet

Agriculture Forest-20 Zone

Section 3.524 Development and Use Permitted

4. Extraction, processing and stockpiling of rock, sand, mineral and other surface materials for use on forest lands in forest zones except when located within 500 feet of a residence located on an adjacent lot or a residential zone.

Section 3.526 Conditional Development and Use

2. Extraction processing and stockpiling of rock, sand, mineral and other surface materials for use in areas other than forestlands in forest zones and/or within 500 feet of a residence located on an adjacent lot or a residential zone.

Forest-38

Section 3.544 Development and Use Permitted

4. Extraction, processing, and stockpiling of rock, sand, mineral and other surface materials for use on forest lands in forest zones except when located within 500 feet of a residence located on an adjacent lot or a residential zone.

Section 3.546 Conditional Development and Use

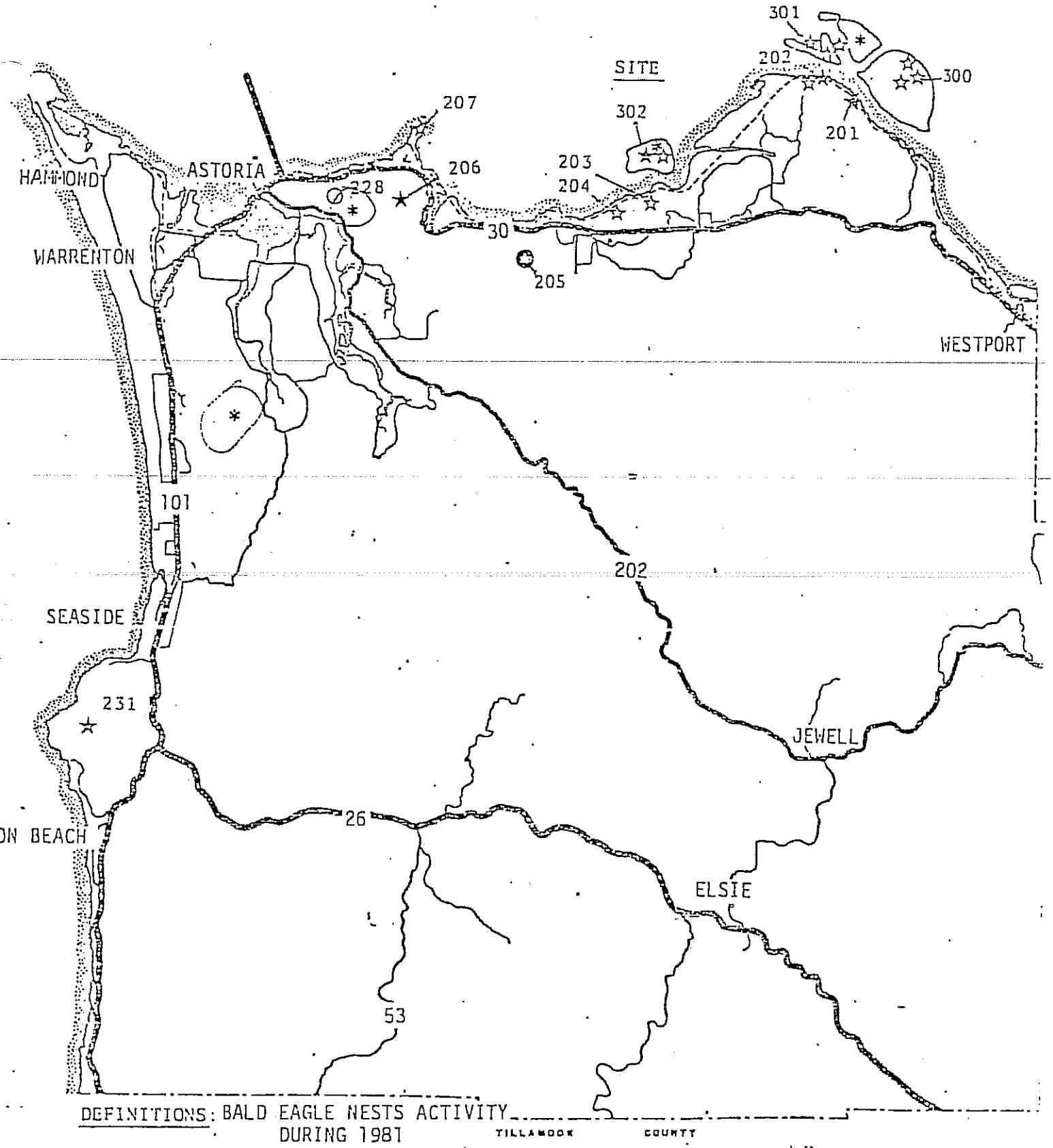
2. Extraction, processing, and stockpiling of rock, sand, mineral and other surface materials for use in areas other than forest lands in forest zones and/or within 500 feet of a residence located on an adjacent or a residential zone.

Fish and Wildlife Areas and Habitats

1. Amend Section 5.015 Authorization of a Conditional Development and Use to include the following additional criteria:

   2j. The use is consistent with the maintenance of big game habitat. In making this determination, consideration shall be given to the cumulative effects of the proposed action and other development in the area on big game habitat.

BALD EAGLE NESTS AND NESTING ACTIVITY - GREAT BLUE HERON ROOKERIES
CLATSOP COUNTY

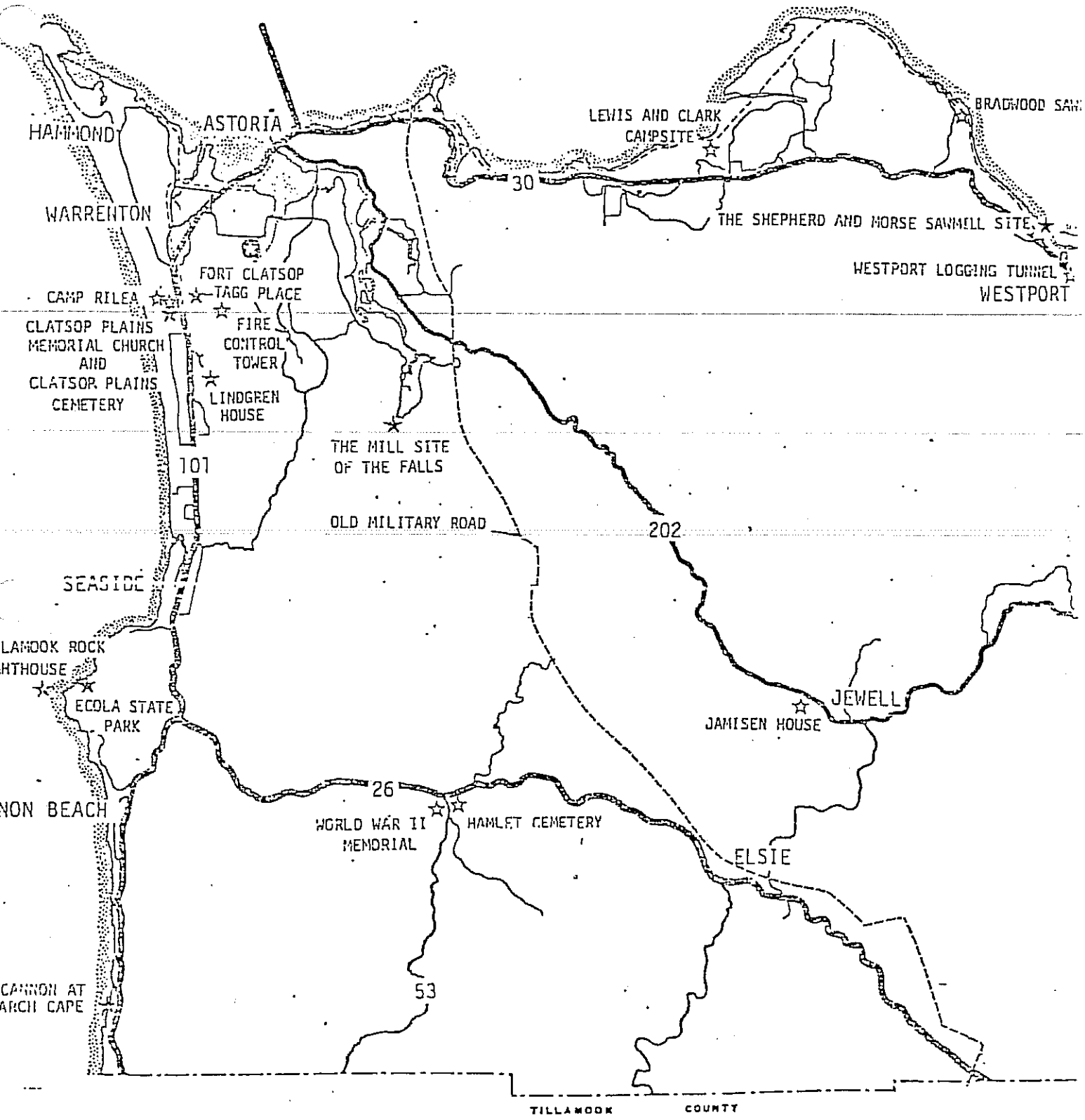


DEFINITIONS: BALD EAGLE NESTS ACTIVITY DURING 1981

- A = Active - Eggs were produced (by best estimate)
- F = Failed - No young resulted
- I = Inactive - No bird used the nest in that particular year
- [illegible] = [illegible] - A young bird was produced
- BD = Blow/down - The nest or nest tree was blown down

* GREAT BLUE HERON ROOKER

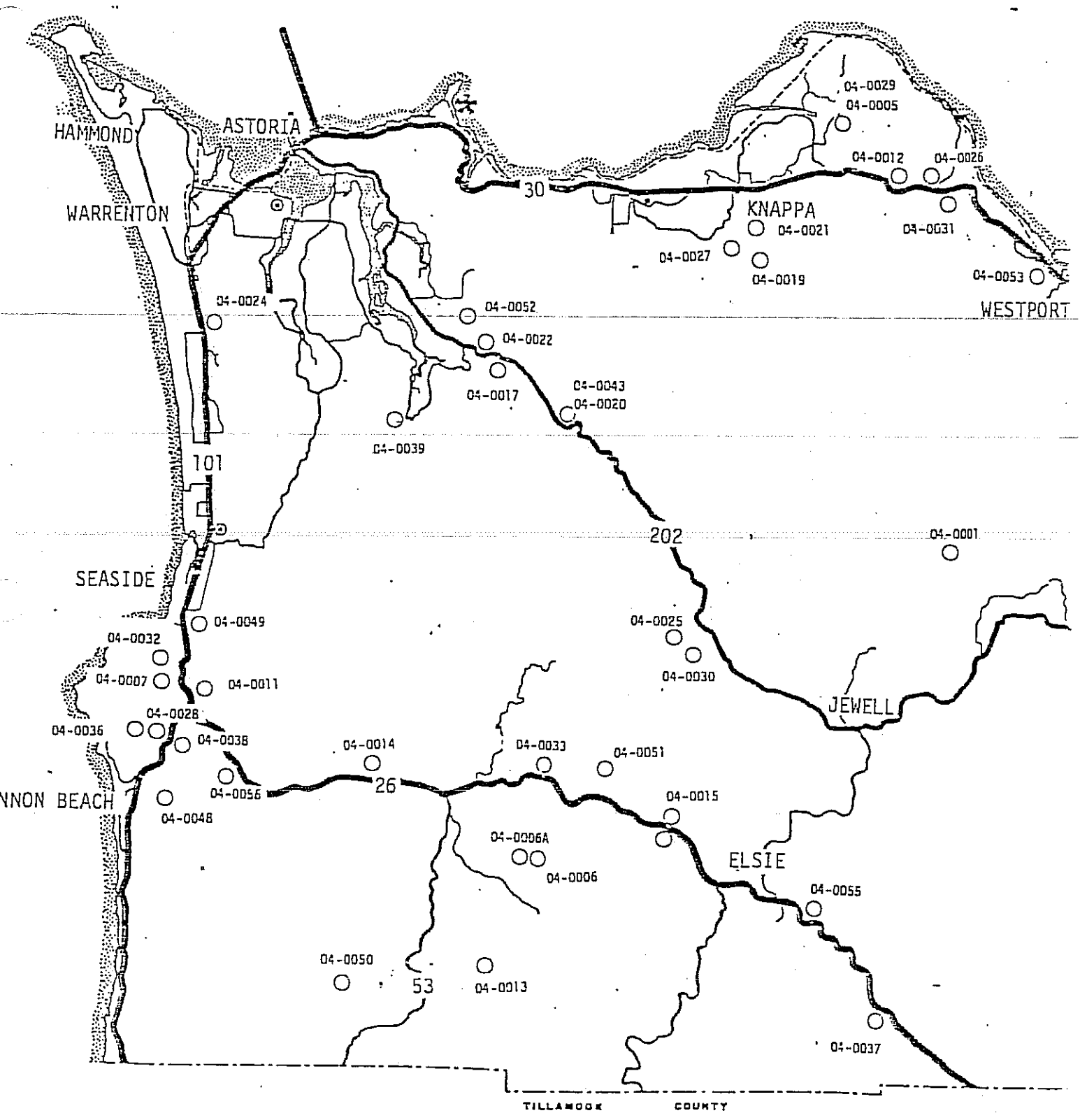
Historic Sites



LEGEND:

- NATIONAL REGISTER OF HISTORIC PLACES
- [illegible] SITES AND BUILDING INVENTORY
- SITES IDENTIFIED BY THE CITIZEN ADVISORY COMMITTEES

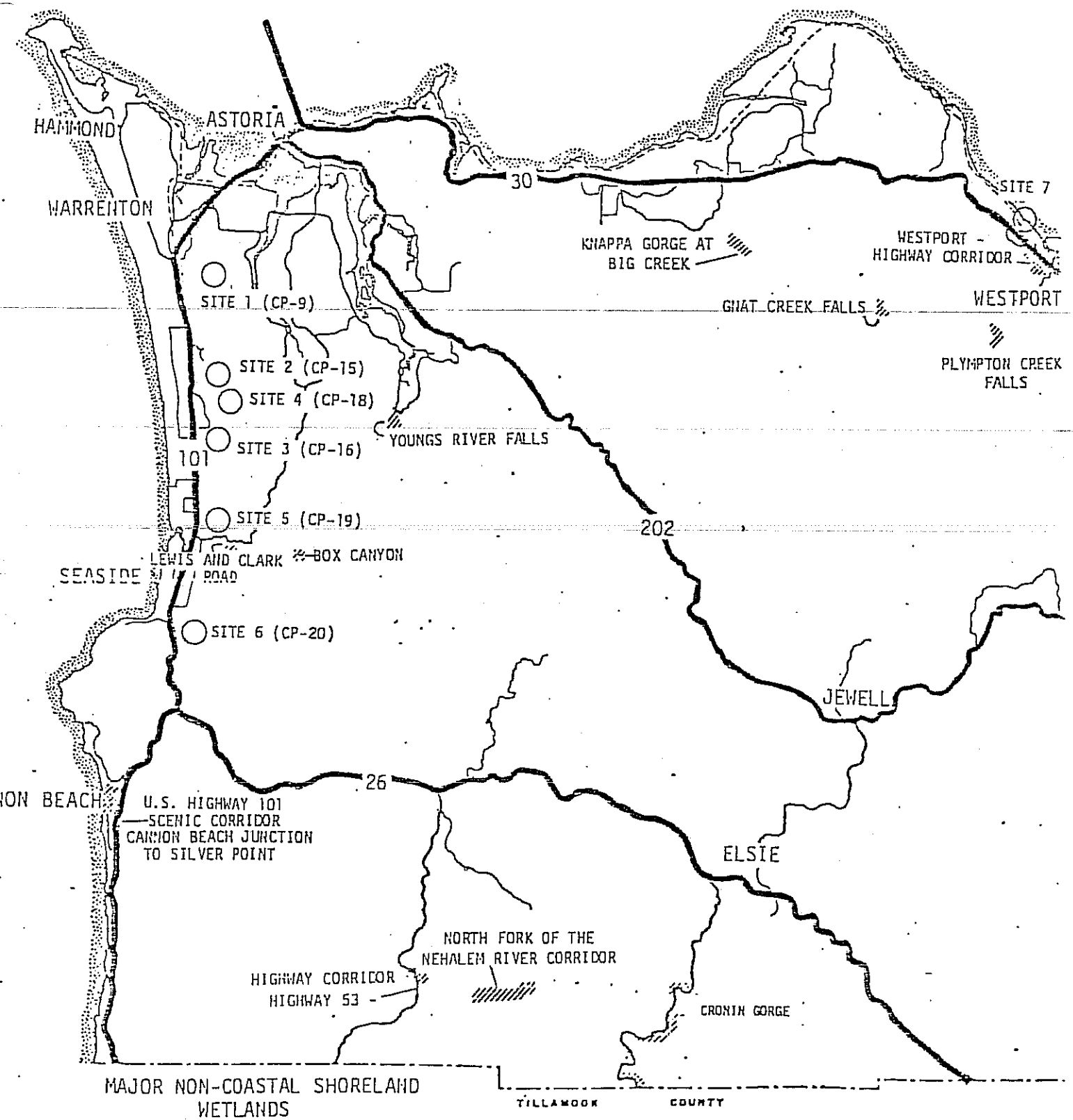
Rock Quarries and Gravel Pits



ROCK QUARRIES AND GRAVEL PITS

○ Department of Geology and Mineral Industries Permit Numbers

Scenic Conservancy Areas and Wetlands



MAJOR NON-COASTAL SHORELAND WETLANDS

SITE 1 (CP-9)

SITE 2 (CP-15)

SITE 3 (CP-16)

SITE 4 (CP-18)

SITE 5 (CP-19)

SITE 6 (CP-20)

SITE 7 (EC 35)

NORTH

SCALE IN MILES

INVENTORY: State-wide Planning Goal 5 requires that the County inventory its watersheds and groundwater resources, including information on the location, quality and quantity of each resource. This section provides information as to the location of the major watershed systems in the County. This information is summarized in tabular form below, and on Map _____, included by reference. Clatsop County does not presently have information on the quality and quantity of the watersheds listed below. The rest of the Goal 5 process for these watersheds will be delayed, pursuant to OAR 660-16-000(1B).

Reference Number	Major Waterway(s)	Approximate Acreage
1.	Plympton Creek/West Creek	8,900
2.	Hunt Creek	5,100
3.	Blind Slough/Grizzley Slough	24,700
4.	Big Creek/Little Creek/Fertile Valley Creek	29,000
5.	Mary's Creek/Bear Creek/Ferris Creek	14,500
6.	John Day River	4,400
7.	Young's River/Klaskanine River/ Wallluski River	80,300
8.	Lewis & Clark River	42,800
9.	Neawanna Creek/Thompson Creek	4,700
10.	Canyon Creek	2,100
11.	Necanicum River	30,300
12.	Nehalem River	213,200
13.	Elk Creek	15,200
14.	Arch Cape Creek/Asbury Creek/ Shark Creek/Fall Creek/ Red Rock Creek	7,100
15.	(This drainage area is almost entirely within the City of Astoria)	
16.	Clatsop Plains — see below	

O. These small or minor watersheds are not included. They consist of small coastal creeks and small creeks draining into the Columbia River. They are not included at this time due to lack of information.

The Clatsop Plains area (Map _____, number 16) consists of two major waterways: the Skipanon River, which drains to the north, and Neacoxie Creek, which drains to the south. The Clatsop Plains area is not notable for its watersheds: it is, however, notable for its groundwater resources.

Clatsop County has complete inventory information for the Clatsop Plains groundwater resource. This information is found in two documents:

R.W. Beck and Associates. Clatsop Plains Ground Water Protection Plan: Summary Report and Environmental Assessment. March, 1982.

Sweet, Edwards and Associates. Clatsop Plains Ground Water Protection Plan: Ground Water Evaluation Report. December, 1981.

These two reports identify conflicting uses, (2) determine the economic, social, environmental and energy consequences of allowing the conflicting uses, and (3) suggest policies to restrict conflicting uses in order to protect the groundwater resource. These reports are included here by reference. The County Board of Commissioners adopted the proposals in these reports on the 24th of March, 1982. The Environmental Quality Commission adopted regulations pursuant to these recommendations on 27 August, 1982 (revised 15 October, 1982).

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Appendix A

DELMOOR LOOP AREA WETLANDS STUDY *

The purpose of this study is to determine whether certain freshwater wetlands in the Delmoor Loop Road area should be made available for conversion to agricultural uses. This study will focus on significant non-coastal wetlands near cranberry bogs. The first section defines a study area and describes wetlands in the study area. Included is information on the location, size and quality of the wetland resource. The second section examines activities associated with agricultural uses which potentially conflict with wetland preservation. The next section identifies wetland areas which may be physically well suited for conversion to various agricultural uses. Finally the economic, social, environmental and energy consequences of allowing or restricting each conflicting use are examined.

1. Inventory

The study area consists generally of the east halves of Sections 22 and 27, T7N R10W, plus about 30 acres in Section 26. The western boundary of the study area is the Burlington Northern Railroad right-of-way. Coastal wetland areas west of the railroad right-of-way have not been included in the study area because the County's management options in coastal wetlands are constrained by Statewide Land Use Planning Goal 17. There are no coastal wetlands in the study area. Wetlands immediately north of the study area are owned by Clatsop County and are managed in conjunction with a recreation area. Non-coastal wetlands south of the study area are not easily accessible. The study area includes about 550 acres, and is more or less coterminous with the southern end of the Skipanon Water Control District. Lands outside of the District are not included because of the important services provided by the District to cranberry growers. Map 1 shows the study area.

The study area consists of about 260 acres of significant non-coastal wetlands and about 290 acres of upland and insignificant wetland areas. Four major wetland types occur in the study area. Their descriptions below are condensed from the County's Goal 5 plan element.

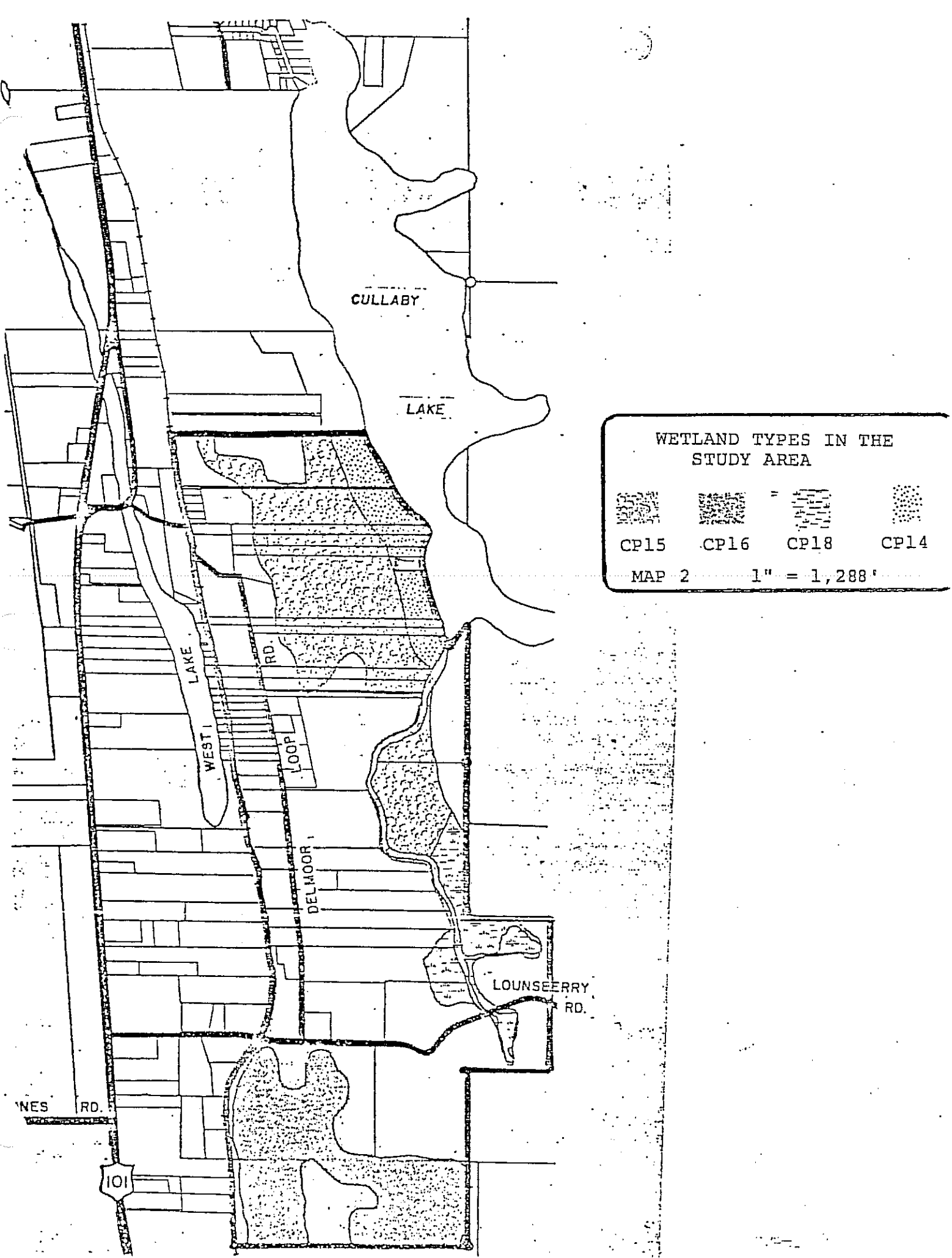
CP 14

Vegetation Type: 1A, 5, 8, 9, 11 (dry var.) (see page nn for key)

Soil: Brallier Muck, lake sediments.

Site Description: Cullaby Lake has the largest area of any lake in the Clatsop Plains: it appears to be the remnant of a much larger lake which has been filling in with peat. It currently has a high level of recreational usage, and supports a recreational warm-water game fishery. It has some value to overwintering and breeding waterfowl. The south end of the lake was described as having a great variety of

* Amended Ordinance 84-5, April 11, 1984


CULLABY
LAKE
LAKE WEST RD.
LOOP
DELMOOR
LOUNSBERRY RD.
NES RD.
101
WETLAND TYPES IN THE STUDY AREA
CP15
CP16
CP18
CP14
MAP 2
1" = 1,288'

avifauna by the Nature Conservency (Clatsop County Site #16). In addition, peat bogs on the western side of the lake within the area were found to be significant. Part of this wetland previously supported cranberry cultivation, but has since reverted to scrub or emergent wetlands and is used extensively by wetland avifauna and by raptors.

Values: Warm-water game fishery; waterfowl and wetland birds.

CP 15

Wetland Vegetation Types: 5, 8, 9, 11 (dry var.).

Soils: Brallier Muck.

Site Description: This large peat bog site is a westerly extension of the significant peat bog areas which line the west side of Cullaby Lake. The peat which has filled in a former lake basin has powerful water-retaining properties, and the surface is saturated for much of the year. It can, however, be used for agriculture, particularly cranberry cultivation, and some of this site has been so-used in the past. It has now reverted to native wetland vegetation. These peat bogs are important to wetland animals, particularly avifauna, and the southern end of this site is extensively used by elk.

Values: Wetland animals, natural semi-natural peat bog wetlands.

CP 16

Wetland Vegetation Types: 4, 5, 8, 9, 11 (dry var.) 12, 13.

Soils: Brallier Muck.

Site Description: This site is the best example of a Coastal Peat Bog on Brallier Muck in the County. The northern end approaches the raised bog condition, dominated in places by the moss, Sphagnum, a rare community in this area, and also by various shrubs and stunted trees. To the south, the site becomes much wetter and considerable areas are at least seasonably inundated. The southern half in particular is used by breeding waterfowl, while the central and northern portions have heavy elk use. There is a great diversity of avifauna throughout, including many wetland species despite the scarcity of open water. The site at one time supported cranberry cultivation, but has since reverted to native wetland vegetation.

Values: Wetland animals, particularly avifauna and elk. The site has high scientific and educational value as a fine example of a peat bog: the past glacial vegetation history of the area is probably contained in fossils in the deep peat.

CP 18

Wetland Vegetation Types: 1B, 4, 5, 8, 9, 2.

Soils: Brallier Muck.

Site Description: This area has great habitat diversity, with open water, marsh and swamp habitats all well-represented. The swamp/upland boundary to the NE of this site was not accurately determined. The lakes are connected to Cullaby Lake via Cullaby Creek and support populations of warm-water game fish. The surrounding marshes and swamps are important to breeding waterfowl and other wetland birds, and have some importance to overwintering waterfowl. The swamp areas are extensively used by elk. Riparian vegetation is found along Cullaby Creek.

Values: warm-water fish, breeding wetland; birds, habitat diversity.

Wetlands in the study area are shown on Map 2. The following table summarizes acreages in each of the wetland types found in the study area.

wetland type	acres in study area	total acres in wetland
CP-14	33	280
CP-15	96	230
CP-16	84	380
CP-18	43 (including 2 small lakes)	160
total	256	1,050

These wetlands are curently protected by the County's Lake and Wetland zone (Section 3.610, Land and Water Development and Use Ordinance). The LW zone does not permit any farm uses, including cranberry cultivation.

2. Conflicting Uses and Activities.

Nearly all farm uses conflict in some way with the preservation of wetlands. Both direct and indirect conflicts may be distinguished. Direct conflicts occur at the site, while indirect conflicts occur off-site on adjacent or nearby lands. This section describes directly and indirectly conflicting activities associated with farm uses customarily practiced in the study area.

A. Grazing. Some wetland areas are grazed in the summer months when pastures are dry enough to support cattle. This type of grazing pattern conflicts with wetland preservation in the following manner:
(1) Domestic animals disturb and compact peat soils.
(2) Domestic livestock competes with wildlife for limited forage.
(3) Waste from domestic livestock may degrade surface and groundwater.
(4) Grazing results in the removal of certain wetland plants.

Wetlands may also be grazed year-round by draining or filling the wetland. This type of grazing practice conflicts with wetland preservation in the following manner:
(5) Drainage of wetland areas results in compaction and decomposition of peat soils.
(6) Draining wetlands eliminates certain wetland plant species.
(7) Draining wetlands may affect runoff patterns and groundwater levels on adjacent undrained wetlands.
(8) Filling of wetland areas may compact peat soils.
(9) Filling will eradicate wetland vegetation.
(10) Filling may change drainage and runoff patterns on adjacent unfilled wetlands.

B. Hay Production. It would be necessary to either fill or drain a wetland to grow hay on the site. Conflicting uses associated with hay production would be the same as those listed above (A(5) through A(10)), in addition to those listed below:
(1) Liquid manure can degrade ground and surface water through runoff.
(2) Herbicides used to control unwanted vegetation may contaminate ground and surface water via drift, runoff and percolation.

C. Cranberry Cultivation. Conflicts associated with cranberry cultivation occur during bog preparation and during cranberry production. These conflicting uses and activities are discussed below.
(1) Bog Preparation.
(a) Wetland vegetation is stripped from the bog site exposing the underlying peat. Vegetation is removed either mechanically with light bulldozers or power shovels, or chemically with defoliants.
(b) The exposed peat is leveled, with a slight slope toward drainage ditches on the sides.
(c) The prepared bog site is covered with about two inches of sand to provide a rooting zone for the cranberry vines, to seal the exposed peat surface, and to reduce weed seed germination.

(2) Production.
(a) Weeds, unwanted insects and plant diseases are controlled with chemical herbicides, insecticides and fungicides. These chemicals are applied as aerosal sprays, as soil supplements

and through the irrigiation system dissolved in water. Improper use of these chemical agents may adversely effect adjacent and nearby wetlands through atmospheric drift, or through ground or surface water contamination.

(b) Machinery used to harvest cranberries can, over time, result in compaction and decomposition of peat soils.

(c) Cranberry production requires large amounts of water for protection from frosts, for irrigation during the growing season, and for harvesting. Ditches and dikes are used to control the water table level beneath the bog. Drained peat soils can oxidize and decompose. Drainage control also alters water levels on adjacent wetlands and changes runoff and drainage patterns.

4. Areas for Conversion to Agricultural Uses

This section identifies wetlands in the study area which may be physically suitable for conversion to agricultural uses. Several factors are considered: soils, adjacent uses, water availability, flooding problems, access and parcel sizes.

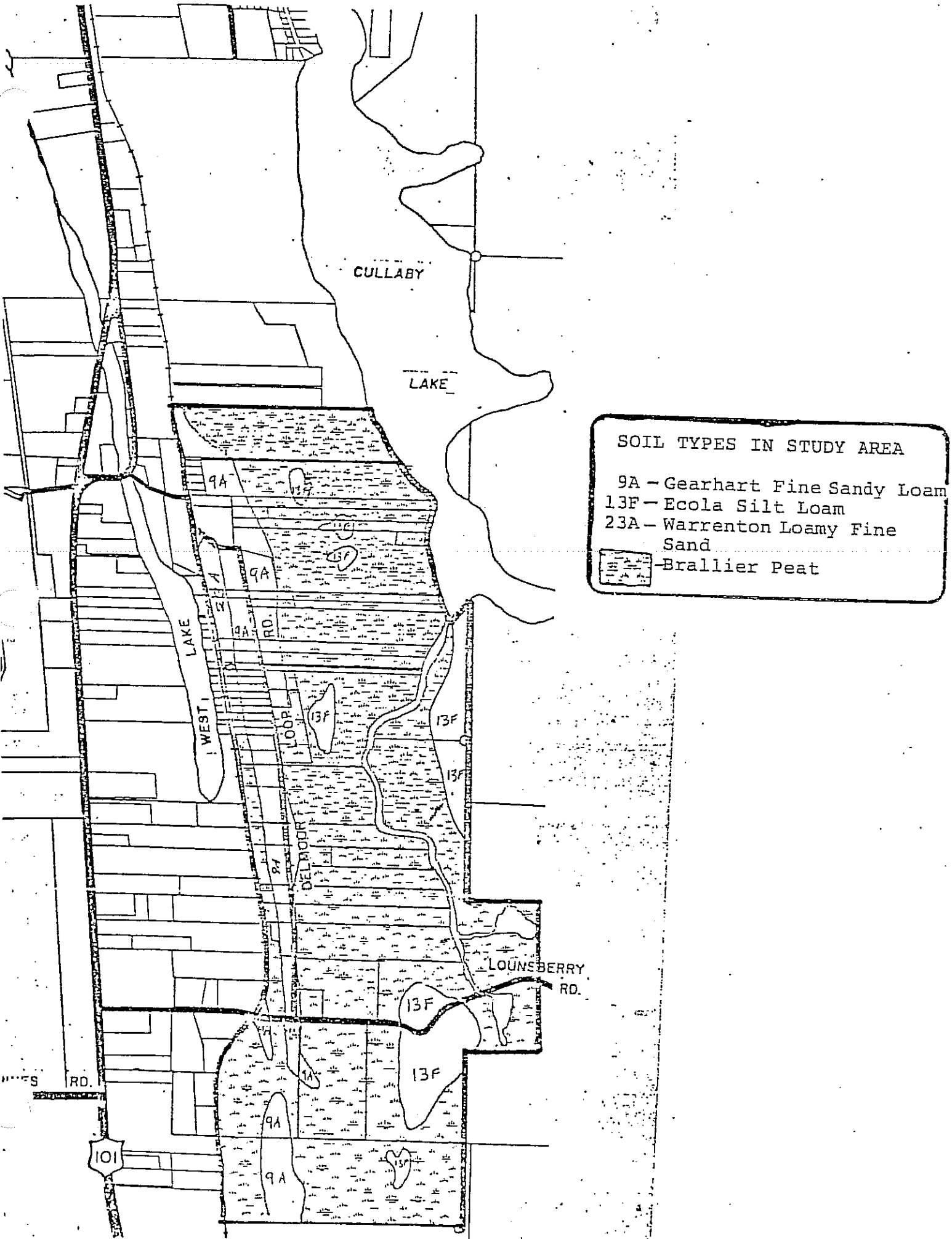
A. Soils

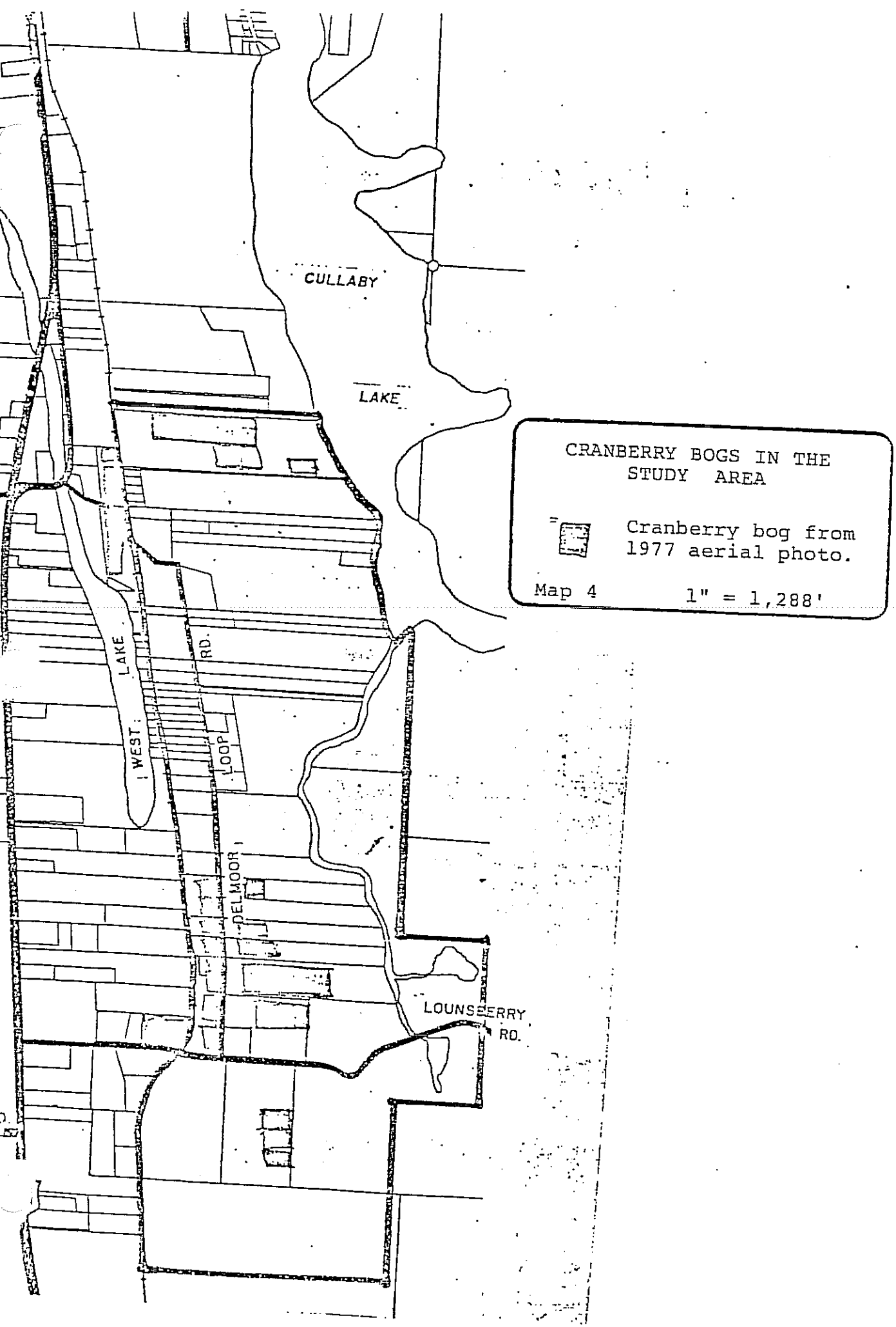
The predominant soil type in the area is Brallier Peat. This soil underlies all of the significant wetland areas in the study area, as well as the insignificant wetlands and portions of the EFU zone. Other soil types in the area are Gearhart Fine Sandy Loam, Ecola Silt Loam and Warrenton Loamy Fine Sand. The Brallier Peat and the Warrenton soils both have agricultural capability classificiation of IVw. The Gearhart and Ecola soils have agricultural capability classifications of VIe. The Brallier Peat soils are subject to high ground water and flooding during the winter and spring months. Peat soils are also somewhat acidic, with a soil pH of between 3.5 to 5.0. Map 3 shows peat soils in the study area. Other soils shown on Map 3 are Ecola Silt Loam (13F), Gearhart Fine Sandy Loam (9A), and Warrenton Loamy Fine Sand (23A).

B. Adjacent Uses.

This study area is characterized by a number of uses, including residences, small pastures, woodlots and cranberry bogs. Residential development is generally concentrated at the north end of Delmoor Loop Rd. Most of the cranberry bogs are concentrated at the south end of the study area, with the exception of a 9-acre site at the north end. Existing cranberry bogs are shown on Map 4. Small woodlots are scattered throughout the area. Small pastures occur in the central portion of the study area.

West of the study area is a similar mix of residential and agricultural uses, as well as wetland. North and south of the study area are significant coastal and non-coastal wetlands. East of the study area are forest lands.


CULLABY
LAKE
SOIL TYPES IN STUDY AREA
9A – Gearhart Fine Sandy Loam
13F – Ecola Silt Loam
23A – Warrenton Loamy Fine Sand
– Brallier Peat
LAKE
WEST
RD.
LOOP
DELMOUR
LOUNSBERRY
RD.
101
9A
13F
23A



CRANBERRY BOGS IN THE STUDY AREA

Cranberry bog from 1977 aerial photo.

Map 4 1" = 1,288'

C. Water Availability

Adequate volumes of water for pasture and hay production are generally availability in the Delmoor Loop Road area. Cranberry cultivation, on the other hand, requires larger volumes of water. Protection from frost and heat, irrigation during the summer months, and harvest opeations all require large amounts of water. Each bog must have access to water in quantities and at rates sufficient to deliver up to 1/4 inch per hour during non-dormant periods whenever the bog temperature falls below 34 degrees F. Cranberry cultivation is not a highly consumptive water using activity. Most of the water used in harvesting and for frost protection returns to either Cullaby Lake or to the aquifer.

Water in sufficient quantities exists in Cullaby Lake, Cullaby Creek and in West Lake. The State Department of Water Resources has indicated that water withdrawals are available for both Cullaby Lake and West Lake.

D. Flooding Problems.

The study area is entirely outside of the 100-year flood plain. There are, however, high groundwater problems in the area. With the exception of two narrow sand ridges running north-south, nearly all of the study area is at least intermittently inundated. The water table is raised during harvest time in order to facilitate flooding of the bogs. This is often thought to be the cause of high groundwater problems in adjacent residential areas. Harvest operations are generally completed within a two week period in October. Several other factors also influence groundwater levels around Cullaby Lake. Chief among these are the need to keep Cullaby Lake deep enough for motor boat use, and the amount of rainfall.

E. Road Access.

There is only one parcel in the study area without direct access to public roads. The County Road Department reports that there are no weight limits on Delmoor Loop Road.

F. Parcel Sizes.

The study area includes about 60 parcels, averaging about 8.5 acres in size. About 75% of the area is in parcels larger than ten acres. About 65% of the area is in parcels twenty acres and larger.

In general, the area consists of long narrow parcels, extending from Delmoor Loop Road to the west shore of Cullaby Lake or Cullaby Creek.

Summary

There are few sites in the Delmoor Loop Road area suitable for pasture or forage. Much of the area, however, is uniquely well-suited for cranberry cultivation. Factors which make hay production or grazing difficult (high groundwater, peat soils, small parcels) work to the advantage of cranberry growers. The number of existing bogs in the area bears witness to this.

5. Plant Communities in the Delmoor Loop Road Area

This section describes plant communities found in various wetlands in the Delmoor Loop Road area. The reader should referr back to the wetland descriptions begining on page nn.

1A. Open Water with few floating or submerged aquatic vascular plants.

1B. Water which usually becomes more or less filled with floating or submerged aquatic vascular plants during the summer and fall. Plant species include:

Callitriche species (water starwort)
Lemna minor (duckweed)
Ceratophyllum demersum (water hornwort)
Elodea densa (South American waterweed)
Elodea nuttallii (Nuttaill's waterweed)
Myriophyllum brasiliense (South American water-milfoil)
Nymphaea odorata (fragrant waterlily)

2. Shallow but more or less permanent water which becomes covered by a dense growth of non-persistent emergent and floating-leaved plants. The main dominants are the yellow flowered Indian Pondlily and the marsh cinquefoil. A species list of plants common or dominant in this community includes:

Potomogeton species (pondweed)
Nuphar polysepalum (Indian pondlily)
Hippuris vulgaris common mare's tail)
Potentilly Palustris (marsh cinquefoil)
Ultricularia vulgaris (common bladderwort)

4. Sedge meadows dominated by tussocks of Sitka sedge. This vegetation is flooded by two or three feet of water during wet periods though the sedge tussocks are usually persistently emergent. During dry periods, the surface between the tussocks may be exposed or shallowly flooded. This community is typical of wet emergent marshes on Brallier peat, and it usually contains floristic elements of either wetter (2,3) and/or drier (5, 11A) communities. Common plant species include:

Carex sitchensis (Sitka sedge)

Carex cusickii (Cusick's sedge)
Carex obnupta (slough sedge)
Nuphar polysepalum (Indian pondlily)
Spiraea douglasii (spiraea or hackberry)
Oenanthe sarmentosa (water parsley)

5. Sedge meadows dominated slough sedge, saturated or flooded at all times. This vegetation is flooded by a foot or more of water during wet periods, and the saturated soil surface s exposed during dry conditions. It occurs on Brallier muck and also on Warrenton loamy fine sand. Common species include:

Carex obnupta (slough sledge)
Lysichiton americanum (skunk cabbage)
Oenanthe sarmentosa (water parsley)
Athyrium filix-femina (lady fern)
Spiraea douglasii (spiraea, or hackberry)
Lonicera involucrata (twinberry)
Carex sitchensis (Sitka sedge)

6. Slough sedge wetland on young deflation plains. These wetlands, on sandy soil close to the ocean, have a fluctuating water table and are flooded during wet periods but dry out so that the soil is moist, not saturated, during dry conditions. Common or dominant species include:

Carex obnupta (slough sedge)
Potentilla pacifica (Pacific silverweed)
Deschampsia cespitosa (tufted hari-grass)

A number of unusual or interesting plant species occur in this community:

Botrychium multifidum (leathery grape-fern)
Habenaria greenei (Green's bog-orchid)

7. Shrub-dominated wetland on young deflation plans. As with vegetation type #6, this type is saturated or flooded during wet periods and may be merely moist at other times. The usual dominant species is Salix hookeriana (Hooker willow), with an herb layer of Carex obnupta (slough sledge).

8. Shrub-dominated swamps. This vegetation type resembles #7, but occurs on more mature soils, particularly Brallier muck and also Warrento loamy fine sand. Soils are less well draining than #7, and are saturated or flooded at all times. Species typical of this community are:

Salix hookeriana (Hooker willow)
Salix lasiandra (Pacific willow)
Pyrus fusca (crabapple)

Lysichiton americanum (skunk cabbage)
Carex obnupta (slough sledge)

In addition, scattered trees of Picea sitchensis (Sitka spruce) and Alnus rubra (red alder) may be present.

9. Sitka spruce swamp. Forested swamp dominated by Sitka spruce trees, which may become large (they are generally stunted in type 8). Soil conditions are saturated with occasional flooding. The understory is dominated by skunk cabbage and slough sedge, with Rubus spectabilis (salmonberry), and Sambucus racemosa (elderberry) in areas which are transitional between wetland and upland.

11. Low shrub vegetation, in which spiraea or hackberry (Spiraea douglasii) is the main dominant. A wet and a drier variant of this type have been identified. The wet variant often occurs on Brallier muck and is flooded for most of the year. Typical associates of the spiraea are slough sedge andSitka sedge (Carex sitchensis). The drier variant is also found on Brallier peat, often on abandoned cranberry bogs, where it grows with other surubs such as sweet gale (Myrica gale) and labrador tea (Ledum glandulosum).

12. Sphagnum bog. The bog surface is covered by a mat of bryophytes, principally of the genus Sphagnum. Soil conditions are saturated, on account of the water-retaining properties of the moss, and the community develops on Brallier peat. Common vascular plants include species of herb and shrub such as:

Carex obnupta (slough sedge)
Carex sitchensis (Sitka sedge)
Carex cusickii (Cusick's sedge)
Lysichiton americanum (skunk cabbage)
Trientalis arctica (northern starflower)
Drosera rotundifolia (sundew)
Eriphorum chamissonis (cotton-grass)
Ledum glandulosum (Labrador tea)
Kalmia occidentalis (swamp laurel)
Gaultheria shallon (salal)

13. Disturbed marsh flora (wet variant). The usual reason for such disturbance is the logging of adjacent forested areas. Following the distruction of marsh vegetation types such as #4 and#5, these areas become dominated by species such as:

Sparganium emersum (bur-reed)
Juncus nevadensis (Sierra rush)
Juncus species (rush)
Glyceria species (manna grass)

(AN ORDINANCE AMENDING THE CLATSOP
(COUNTY COMPREHENSIVE PLAN AND ZONING
(MAP, TAKING AN EXCEPTION TO GOAL 4
(FOREST LANDS, AS ADOPTED BY THE BOARD
(OF COUNTY COMMISSIONERS, ADOPTING
(CERTAIN FINDINGS, RESCINDING
(INCONSISTENT PROVISIONS AND DECLARING
(AN EMERGENCY

ORDINANCE NO. 86-10

APR 02 1986

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the Bayview Transit Mix Rock Quarry Project Amendment.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Comprehensive Plan, Background Reports, Community Plans and Comprehensive Plan/Zoning Map. In the interest of the health, safety and welfare of the citizens of Clatsop County and in accordance with the recommendations of the Clatsop County Planning Commission and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the Comprehensive Plan text and map.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Planning Commission held a hearing on January 14, 1986 and February 11, 1986. The Board received and considered the Planning

Commission's recommendation on this amendment and held a public hearing on this ordinance pursuant to law on February 12, and April 2, 1986.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supercede, control and repeal any inconsistent provision of the Clatsop County Comprehensive Plan, as amended, the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force immediately upon adoption as set in the emergency clause.

SECTION 7. EMERGENCY CLAUSE.

In order to implement the recommendations of the Planning Commission and findings of the Board with the greatest expedience and in order to realize the benefits to be derived from the adoption of this ordinance to the Comprehensive Plan Background Reports, County-wide Elements, Community Plans and the County Land and Water Development and Use Ordinance (ZDO-14), an emergency is declared to exist and this ordinance shall become effective immediately upon its passage.

SECTION 3. ADOPTION CLAUSE.

The Board of Commissioner's hereby adopts the findings and conclusions set forth in "Exhibit A" and attached hereto and by reference herein made a part of this ordinance in its entirety.

ENACTED this 2nd day of April, 1986.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

BY _____
Roger A. Berg, Chairman

ABSENT

BY _____
Joan M. Dukes, Commissioner

BY _____
Bob Westerberg, Commissioner

Vote: Aye: Bob Westerberg, & Roger A. Berg

Nay: -0-

Abstention: Joan M. Dukes

Attest: _____
Recording Secretary to the Board
Norma Hunsinger

Date: April 2, 1986

Date of first reading: April 2, 1986

Date of second reading: April 2, 1986

EXHIBIT "A"

PART 1

PROPERTY DESCRIPTION: PORTIONS OF:

T5N R10W Tax Lots 700 and 1000
T5N R10W Section 4 Tax Lot 100
Willamette Meridian

SEE ATTACHED MAP

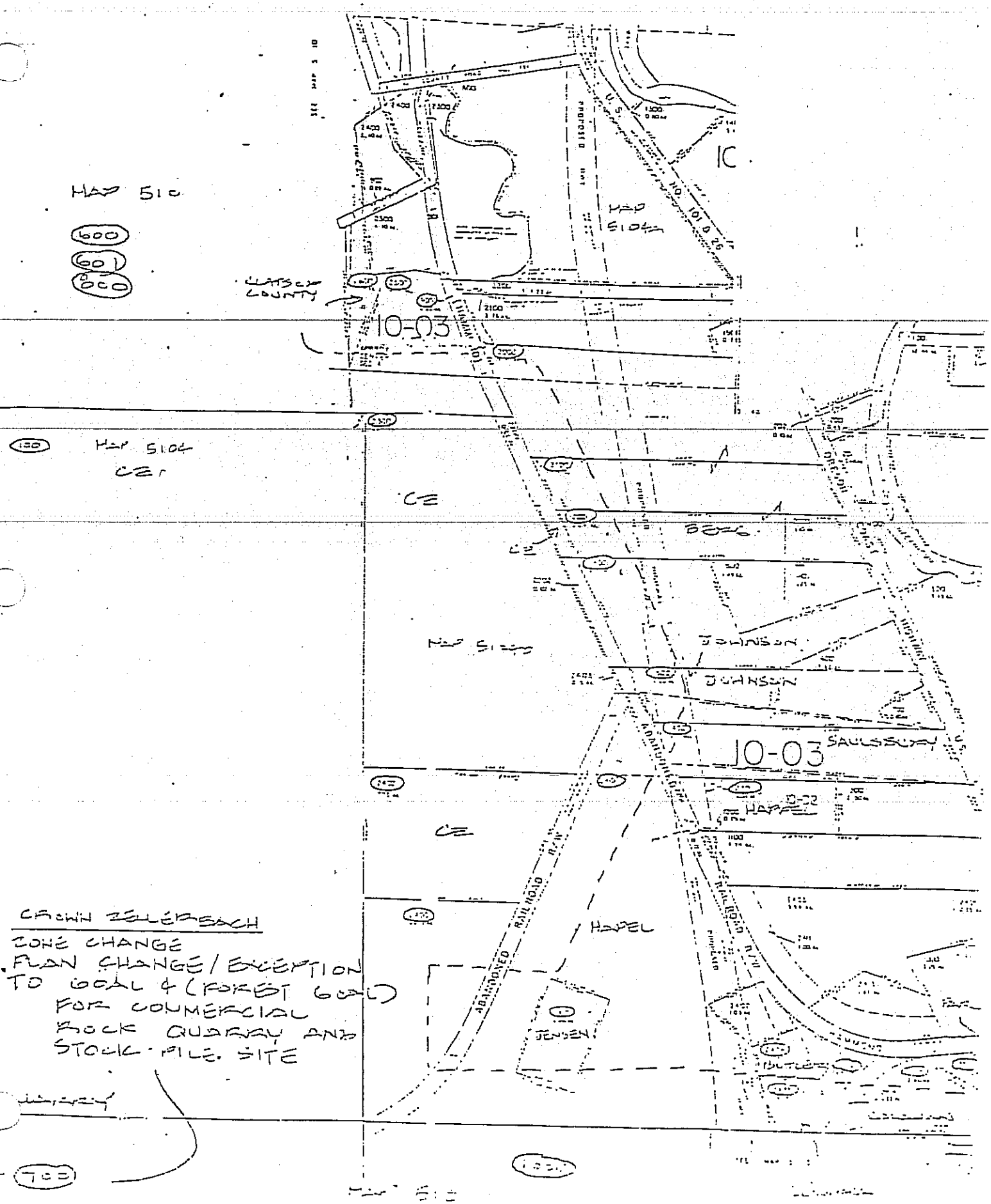
REQUEST:

1. AMEND COMPREHENSIVE PLAN/ZONING MAP

   FROM: CONSERVATION FOREST LANDS AND F-80 ZONE

   TO: CONSERVATION OTHER RESOURCES AND QM

2. AMEND GOAL 2 ELEMENT BY ADDITION OF EXCEPTION INFORMATION ATTACHED.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RAILROAD R/W
HAPEL
JENSEN
CROWN ZELLERBACH
ZONE CHANGE
PLAN CHANGE/EXCEPTION
TO GOAL 4 (FOREST GOAL)
FOR COMMERCIAL
ROCK QUARRY AND
STOCK-PILE SITE

EXHIBIT A
PART 2

APPROVAL FINDINGS
BAYVIEW TRANSIT ZONING AMENDMENT AND GOAL EXCEPTION
DATED - FEBRUARY 26, 1986

BACKGROUND

Bayview Transit, Inc. has made application to Clatsop County requesting the rezoning of about 30 acres of land to the West of the intersection of Highways 101 and 26. A Comprehensive Plan amendment from Conservation Forest Lands to Conservation-Other Resources and a zoning amendment from F-80 (Forest-80) to QM (Quarry and Mining), has been requested to allow the applicant to conduct a quarrying, crushing and stockpiling operation on the subject property which will be leased from Crown Zellerbach. The request includes a 20+/- acre area that would be used as a quarry and crushing site; this area has been used by Crown Zellerbach for the past 10 to 15 years as an aggregate source for timber access road rock and for some general commercial rock. The request also includes a 10+/- acre site to the southeast of the quarry which would be utilized as a stockpile and processing area. Both the quarry and stockpile sites are owned by Crown Zellerbach. Crown also owns all surrounding properties.

The Clatsop County Planning Commission held a public hearing on the Bayview request on January 14, 1986. This public hearing was continued to the Commission's February 11, 1986, meeting. At the conclusion of the continued public hearing, the Planning Commission, by unanimous vote, made a recommendation to the Clatsop County Board of County Commissioners that the Bayview Comprehensive Plan amendment, zoning amendment and goal exception be approved.

The Board of Commissioners held a public hearing on the Bayview request on February 12, 1986. Following the hearing, the Board requested findings submittals from the proponents and opponents by February 21, 1986.

REVIEW CRITERIA

The Clatsop County Department of Planning and Development has determined that two sets of Review Criteria are relevant to this request. These are: (1) the Statewide Planning Goal 2 Part IIC exception criteria, and (2) the Zoning Ordinance section 5.412 Zone Change Criteria.

Section 20 of Chapter 660 Division 4 of the Oregon Administrative Rules outlines the following four factors required to be addressed when taking exception to a statewide planning goal:

(1) Reasons justify why the state policy embodied in the applicable goals should not apply;

(2) Areas which do not require a new goal exception cannot reasonably accommodate the use;

(3) The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in areas requiring a goal exception other than the proposed site; and

(4) The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts.

Since the request involves a non-forest use on lands currently designated for F-80 usage, the Planning Department has determined that a Goal 4 exception must be taken.

The Planning Department January 14, 1986, staff report also addressed section 22 of the above referenced administrative rule. Section 22 provides a summary of "the types of reasons that may or may not be used to justify certain types of uses not allowed on resource lands. . ." (emphasis added). The illustrative examples contained in section 22 are not review criteria. Accordingly, these findings will address the section 20 factors and will not specifically speak to section 22.

Section 5.412 of the Clatsop County Land and Water Use and Development Ordinance outlines the following zoning amendment review criteria:

(1) The amendment shall be consistent with the Comprehensive Plan.

(2) The revision will not interfere with the development or value of other land in the vicinity when compared to the public interest in allowing the change in zone.

(3) A demand exists for the development and uses listed in the proposed zone at the proposed location.

Factors which should be considered in determining whether or not this demand exists include (a) availability, including an assessment of the public facilities and services and roads to supply the area, and (b) an assessment of availability of other appropriate zoned property.

(4) The revision will not be detrimental to the general interests of the community.

Note: The County's zoning amendment application contains a separate and different list of zone change criteria with no reference to the Zoning Ordinance section 5.412 criteria. The applicant has responded to both sets of review criteria. Based upon the direction of the Planning Department staff report, this findings document addresses the section 5.412 criteria.

OAR 660-04-020 GOAL EXCEPTION CRITERIA

Exception Factor #1

Reasons justify why the state policy embodied in the applicable goals should not apply.

Findings

(1) Statewide planning goal 4 Forest Lands provides the following goal intent statement:

"TO CONSERVE FOREST LANDS FOR FOREST USES."

(2) Statewide planning goal 5 Open Spaces, Scenic and Historic Areas, and Natural Resources, provides the following goal intent statement:

"TO CONSERVE OPEN SPACES AND PROTECT NATURAL AND SCENIC RESOURCES."

(3) Planning guideline #6 of goal 5 contains the following requirements:

"In conjunction with the inventory of mineral and aggregate resources, sites for the removal and processing of such resources should be identified and protected."

(4) The County's goal 5 background report contains the following information:

"Since transportation costs are an important factor in the economics of supplying rock materials, rock sources should ideally be located on good haul roads, not more than 15 to 20 miles from the intended market. Clatsop County, because of the nature of its geologic rock materials, has only limited sources capable of furnishing good construction crushed rock and gravel aggregates due to the fact that most of the upland areas are composed of marine sedimentary rocks which readily weather and break down into fine grained sands and rock materials of poor quality. The best source of rock in the County, therefore, is the Miocene intrusive rocks which are located within 15 to 20 miles from any major community, and so, in some cases, it is not economically feasible to transport these rock materials under normal operating conditions." (Emphasis added.)

(5) The subject quarry site has been used by Crown Zellerbach for the past 10 to 15 years as a source for rock.

(6) Tom Parke, a Crown Zellerbach spokesman, has advised the County of Crown's endorsement of the Bayview request and has stated that the proposed use would be compatible with the ongoing forest management of surrounding lands.

Conclusion

This request involves the balancing of two statewide planning goals; the involved goals are Goal #4 Forest Lands, and Goal #5 Open Spaces, Scenic and Historic Areas, and Natural Resources. The forest production value of the subject land must be weighed against its resource value as a source for construction rock aggregate. The forest production potential of the quarry site is considered to be secondary to its rock resource value. The site has been utilized as a rock source in the past, and it is assumed that Crown will continue to remove rock from the quarry regardless of whether the current amendments to provide for a commercial quarry are approved. The forest production potential at the stockpile site is comparable to that of surrounding lands and other F-80 lands in the County. The County has a vast supply of commercially managed forest land. The removal of 30 acres from active forest management will be inconsequential to the County's overall forestry production resources. Due to the fact that rock resources are limited in the County and that this pit has excellent development potential (as detailed in findings that follow), a decision has been made that the involved lands would be best utilized as a source of aggregate material.

The proposed quarry activities will be compatible with future forest management activities on surrounding Crown lands. The lands involved in this request will be reclaimed for future

forest practices after the quarrying activities are completed as per Department of Geology and Mineral Industries' requirements. Based upon a rock deposit of one million tons and an annual extraction rate of 50,000 tons, the involved quarry would have a usable life span of 20 years; after this time the lands will be available for future forest uses.

Exception Factor #2

Areas which do not require a new exception cannot reasonably accommodate the use.

Findings

(7) In attempting to find a suitable quarry site, the applicant looked for property with the following characteristics:

(a) The land had to contain a large volume rock deposit in excess of one million tons,

(b) The rock deposit had to be a high quality deposit suitable to be processed into paving rock, and

(c) The rock deposit had to be in close proximity to the Cannon Beach junction highway improvement project and other anticipated future Highways 101 and 26 projects.

(8) The subject property contains a rock deposit in excess of one million tons.

(9) The subject rock deposit has been tested by Northwest Testing Laboratories, Inc., and the test results have been reviewed by Chris Hardwick and Associates. Hardwick and Associates conclude that "the rock tested met the minimum requirements of Oregon State Highway Division, the Federal Highway Administration and the U. S. Forest Service."

The Hardwick report entitled Evaluation of Square Creek Aggregate Source Clatsop County, Oregon, dated January 7, 1986, is incorporated herein by this reference.

(10) The subject quarry site is within one mile of U. S. 101 and Highway 26 intersection highway improvement project which is scheduled for bid in the spring of 1986. Existing logging roads provide access from U. S. 101 to the quarry site.

(11) Quarry locations are dependent upon the location of suitable rock deposits. The majority of these rock deposits are located on "Conservation Forest" lands in the county and all require either a zoning amendment or conditional use permit and a goal exception to be utilized for general quarrying activities.

(12) The Planning Department staff report provides a listing of other old or operating quarries in the general area of the applicant's proposed quarry. These nine quarries are identified by the Department of Geology and Mineral Industries (DOGMI) permit numbers.

(13) The DOGMI quarries 4.0028, 4.0032, 4.0036, 4.0038, 4.0048, 4.0049 and 4.0056 are all located in the County's F-80 zone and would require a goal exception for general quarry development. Of this group, only quarries 4.0038 (CZ-Darling) and 4.0056 (Ordway) are currently operating and neither of these two quarries contains a rock deposit of comparable quantity and quality to the applicant's quarry site.

Quarry 4.0038 is allowed to operate as a grandfathered (previously existing) use; a goal exception would be required if this use was expanded to produce the commercial rock quantities proposed by the applicant. Quarry 4.0056 is operated on a conditional use basis with conditions attached which limit activities to certain months of the year; an exception would be required to allow this quarry to be operated as a year-round general commercial quarry.

(14) Quarry 4.0007 is owned by Crown Zellerbach and leased to Howard E. Johnson and Sons; this quarry is in the F-80 zone. Quarry 4.0011 is owned and operated by Howard E. Johnson and Sons, and is in the quarry and mining zone.

(15) The applicant operates a drum roller asphalt paving plant which produces mixed asphalt for highway construction projects, such as the upcoming Cannon Beach junction project. Oregon State Highway Department specifications require the stockpiling of three classes of aggregate which are fed into the drum roller asphalt plant. These three classes are ½" to ¼", ½" to 10, and 10 minus. In order to produce State specification asphalt, the applicant must have a source for each class of rock.

(16) When producing asphalt mix for State highway projects, the applicant must satisfy random quality control tests of the stockpiles of the three aggregate classes, as well as the finished mix. If the random samples do not meet contract specifications, production penalties are imposed. Accordingly, the applicant must maintain tight quality control upon his aggregate stockpiles; the best means of assuring this control is to directly supervise all crushing operations.

(17) There are no crushing operations in Clatsop County which produce ½" to 10 and 10 minus rock to meet Oregon Highway Department specifications.

(18) Bruce Johnson, of Howard E. Johnson and Sons, testified that his firm produces ½" to ¼" and ¼" minus crushed rock. His firm has not produced (and does not currently produce) ¾" to 10 and 10 minus specification aggregate from their crushing plant.

(19) Certain classes of crushed rock are available from Howard E. Johnson and Sons at the price of $6.00/yd. The applicant estimates that rock can be quarried, crushed and stockpiled at the cost of $4.20/yd. at the proposed quarry.

(20) Paragraph B of OAR 660-04-020 (2B) states that "economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas."

(21) Plamberg Paving submitted a letter dated 1/14/86 pertaining to their rock needs. Testimony before the Planning Commission determined that this company operates a different type of asphalt plant than the Bayview plant and that Palmberg rock needs are also different. Palmberg's plant does not require any rock smaller than ¼" minus specification rock. The Bayview drum roller plant requires two classes of rock (¼" to 10 and 10 minus) which are not utilized by Palmberg. Existing quarries may supply Palmberg's needs but they do not supply the applicant's needs.

Conclusion

The proposed development site contains a high quality rock deposit with a volume in excess of one million tons that is located within one mile of the upcoming Cannon Beach junction highway improvement project.

Of the nine quarries identified by Planning Department staff in the general vicinity of the request, two are owned or controlled by Howard E. Johnson and Sons and the other seven quarries are all located on F-80 lands and would require a similar goal exception for commercial development. Of this latter group of seven, only two are currently operating and neither of these two quarries contain rock deposits which are comparable in quality and quantity to the proposed quarry.

In order to produce State Highway Department specification paving mix, the applicant must have a supply of the following three specification rock: ½" to ¼", ¼" to 10 and 10 minus. There are no crushing operations in Clatsop County (including Howard E. Johnson and Sons) which produce ¾" to 10 and 10 minus rock to Oregon Highway Department specifications. The applicant would have to import these classes of rock or purchase ¾" minus rock

and rescreen it to separate ½" to 10 and 10 minus stockpiles. Importing or rescreening would both increase rock supply expense. The applicant also finds it desirable to produce his own crushed rock, in order to have complete quality control upon the products he stockpiles. The applicant can realize economic advantages from producing his own crushed aggregate. The applicant can crush his own rock at an estimated expense of $4.20/yd. as compared to $6.00/yd. if crushed rock is purchased from the other quarry in the area. This 30% supply savings is a substantial economic consideration in a material-intensive operation such as asphalt production.

The abovementioned economic factors are relevant in justifying the proposed amendments and goal exception. The applicant should be allowed to develop this quarry site in order to obtain a dependable and economic source of aggregate for his established paving operation. His aggregate needs are not currently supplied by the County's aggregate producers. Areas which do not require an exception cannot reasonably accommodate his proposed use.

Exception Factor #3

The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site with measures to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in other areas requiring a goal exception.

Environmental Consequences

Findings

(22) The proposed project is located within the Major Big Game Range. The Goal 5 element of the Comprehensive Plan recommends that other uses (non-residential) allowed in the F-80 zone are required to be at a density that will not conflict with the Big Game Range. This recommendation seems to imply that the density requirement is one non-forest related development per 80 acres of forest land in the F-80 zone. The Crown Zellerbach parcel is several hundred acres in size. The proposed use of Crown ownership is consistent with the Department of Fish and Wildlife criterion.

(23) Deer, elk and other wildlife are native to the area involved in this request. No significant habitat alterations are proposed.

Planning Department staff observed two potential bird nesting sites in the vicinity of the proposed amendment. Walt Weber, a local Fish-Wildlife biologist with the Oregon Department of Fish and Wildlife, visited the site and concluded, "Inspection of suggested nest trees did not reveal any nests or the presence of any eagles."

(24) Square Creek flows in an easterly direction between the proposed quarry and stockpile sites. Square Creek flows into Circle Creek. These are both Class I streams.

(25) Laurel Underhill and Otto Jensen, two local landowners and Salmon Trout Enhancement Program (S.T.E.P.) volunteers have suggested that the future quarry activities would damage the fish habitat value of Square and Circle Creeks. Mr. Jensen maintains egg incubation boxes on his property that are fed by a spring that flows into Circle Creek. Mr. Underhill has incubation boxes on his property about one mile to the northeast, which are not influenced by Square or Circle Creek; he has released fingerlings into the Circle Creek system in the past. There are no other S.T.E.P. incubation boxes on Square or Circle Creeks.

(26) Rick Klaumph and Eldon Korpela provided testimony to the Board upon the background of the S.T.E.P. program and past S.T.E.P. activities in the Circle Creek system. They noted that the proposed quarry activities had the potential to negatively impact Square Creek fish habitat values.

(27) Otto Jensen submitted to the Planning Commission a habitat assessment of Square Creek prepared by Richard Pressey. This report identified potential habitat impacts from the proposed quarry and suggested mitigation measures which could be undertaken to lessen negative impacts.

(28) The applicant presented an engineered development and reclamation plan for the proposed quarry that was prepared by David Evans and Associates. This plan included provisions to contain on-site runoff waters and filter these waters to remove erosion sediments. This development plan was designed to meet applicable DEQ water quality standards. In presenting the development plan to the Board, Robert Price, of David Evans and Associates (DEA), stated that the proposed containment and filtration plan would result in a lesser runoff sediment load into Square Creek than the sediment load which is currently carried into the Creek.

(29) Warren Knispel, District Fish Biologist for the Oregon Department of Fish and Wildlife, has submitted the following comments to the County regarding the proposed quarry:

> "Expansion will require some caution to protect water quality in nearby Circle Creek. The stream produces salmon, steelhead and cutthroat trout. Past experience, with poorly designed pit drainage, has resulted in turbid water entering such streams. If the crushing operation washes rock, adequate settling basins would be needed as well as an upland site to dispose of the non-usable material."

After reviewing the engineered site development plans as they were presented at the February 11, 1986, Planning Commission meeting, Mr. Knispel advised the Commission that the Department of Environmental Quality had regulatory authority upon water quality impacts and he observed with regards to the DEA development plan, "It's a good plan."

(30) The applicant does not propose to remove water from Square Creek at the project site. Imported water will be utilized to meet his needs. The applicant intends to use a dry stream process in his crushing operation.

(31) The nearest residence, Otto and Pat Jensen's mobile home, is approximately 2,000 feet from the proposed quarry site and 800 feet from the proposed stockpile site. The Jensens have a conditional use permit to allow a non-forest dwelling within an AF-20 forest zone.

(32) There are five residences within 3,000 feet of the proposed quarry. Four of these are located within the AF-20 zone and the other is within a GC general commercial zone. All of these residences are within 150 feet of the Highway 26/101 intersection.

(33) The applicant's rock crusher would be located on the south side of the quarry. An asphalt mix plant may be placed at the quarry site or in the stockpile area. Both the rock crusher and the asphalt plant must receive DEQ permits which regulate noise, dust and emission levels.

(34) Access roads to the site will be maintained in a dust-free condition per QM zoning standards.

(35) Mr. Jensen testified before the Board that he had in the past heard, from his residence, noise from the Johnson quarry, the previous activities at the applicant's proposed quarry site and traffic noise from U. S. Highway 101.

(36) Since the involved quarry site has been utilized during the past 20 years, DEQ will apply their standards for an "existing industrial or commercial noise source" to the applicant's future activities. The use will have to comply with the standards found in table 7 of the DEQ regulations (OAR 340-35-035).

(37) Contrary to assertions made by the opposition, the area in the vicinity of the request has not been designated as a DEQ "quiet area" as per definitions in OAR 340-35-015 (50).

(38) The applicant has presented a noise study prepared by Larry Hopkins, of dBH Engineering, which documents that the proposed use can be conducted on the subject property in conformance with the applicable DEQ noise standards.

Conclusion

The Board has received extensive testimony upon how the proposed amendments and resulting quarrying activities might impact the fish habitat value of Square and Circle Creeks. Two local S.T.E.P. volunteers (Jensen and Underhill) have suggested that the activities would have negative impacts upon fish habitat. Three individuals with varying fisheries biology backgrounds (Klaumph, Korpela and Pressey) have indicated that the quarrying activities could potentially damage fish habitat. Warren Knispel the ODGW District Fish Biologist notes "expansion will require some caution to protect water quality in nearby Circle Creek."

The major identified fish habitat concern is that runoff waters from the development sites would carry sediments into Square and Circle Creeks. The applicant has provided an engineered development plan which details how site runoff will be contained and filtered. This plan includes a provision for an undisturbed riparian vegetation buffer of 50+ feet from Square Creek, which exceeds the County's habitat protection buffer requirement of 25 feet. The Board concludes that the applicant has adequately addressed the identified fish habitat concerns. With the precautions outlined in the DEA development plan, rain water runoff sediments will be contained in a manner which is probably an improvement upon existing conditions and which is certainly more effective than provisions undertaken during the clearcutting of similar forest lands. Water quality concerns will be further considered and mitigated by the DEQ through the established Department of Geology and Mineral Industries permit process.

The County's QM zone development standards require that applicable State and Federal noise and dust standards be followed. The applicant has submitted a noise study completed by dBH Engineering, which outlines applicable DEQ noise standards and details noise level projections from the proposed quarrying activities. This report concludes that the proposed activities can be conducted within the limitation of established DEQ noise standards. The Board also notes that the four closest residences are all in a forest resource zone and that these residences were constructed after the subject quarry was opened by Crown 10 to 15 years ago. The noise produced by the quarry and hauling units will be similar to that produced by logging equipment during typical logging operations. Due to their proximity to commercially managed forest lands, these residents should anticipate and accept a given level of noise associated with logging activities and/or other resource uses such as quarrying. It should, also, be recognized that the subject quarry could be extensively utilized on a permitted use basis in the F-80 zone, so long as 75% or more of the produced rock was used for forest purposes. The Board concludes that the applicant has properly demonstrated that the future quarrying activities can be conducted within the limits of DEQ noise standards and that the projected noise impacts will not be significant.

The applicant's crusher and asphalt plant equipment will have to satisfy DEQ dust discharge standards. All access roads will have to be maintained in a dust-free condition. The Board concludes that the dust impacts have been properly addressed.

Economic Consequences

Findings

(39) The availability of adequate quarries, dispersed throughout the County in the proximity of future construction projects will encourage competitive aggregate pricing and result in reduced road construction costs.

(40) The goal 5 background report acknowledged this economic fact in stating:

> "Existing rock and aggregate sources, particularly those which are close to a major area of potential new construction, should be kept available for future use because the rock and aggregate industry is vitally needed to the growth of an expanding community."

(41) The quarry operation will create direct economic benefits in the form of three or four jobs.

Conclusion

The County will realize long-term economic benefits from the development of a competitive aggregate source in close proximity to future improvement projects along U. S. 101 and Highway 26. Other potential quarry sites do not have the advantage of being located in close proximity to both U. S. 101 and Highway 26.

Social Consequences

Findings

(42) Minimal social consequences are anticipated by the operation of the quarry.

Conclusion

Social consequences are not an issue in this report.

Energy Consequences

Conclusion

This quarry is in the immediate vicinity of the upcoming Cannon Beach junction improvement project and in the general vicinity of

other future highway improvement projects along Highway 26 and U. S. 101. Other more isolated quarry locations would require longer haul distances and consequently would be less energy efficient.

ESEE General Conclusions

Other potential quarry sites in the vicinity do not have rock deposits of the quantity and quality desired by the applicant. Concerns have been raised regarding fish habitat and noise impacts at the proposed exception site. The applicant has demonstrated that precautionary measures will be taken to reduce these potential adverse impacts to acceptable levels. In general terms, the environmental, economic, social and energy consequences resulting from the use of the proposed site will be similar to, and no more adverse than, the expected consequences from the development of other quarry sites.

As previously determined, the forest production potential of the quarry site is considered to be secondary to its rock resource value. The proposed development will be compatible with forest management activities on surrounding Crown lands. In the long term, the development areas themselves will be reclaimed for future forest uses; the projected 20 year quarry life span is a relatively short-term land use in relation to a typical 40 year timber production cycle. The removal of 30+/- acres from the County's vast timber management resource base for the lifetime of the quarry will have an insignificant impact on the County's economy.

Exception Factor #4

The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts.

Findings

(43) All adjacent lands are managed forest lands. The involved quarry has been utilized in past years as an aggregate source for the construction of logging roads. The forest management activities and rock quarrying land use have co-existed side by side for a number of years. Quarry activities are a listed F-80 permitted use, so long as the quarry output is utilized on a 75/25 forest/nonforest use basis.

Conclusion

As indicated by Finding 6, the proposed rock quarry development would be compatible with forest uses on surrounding F-80 lands.

ZONING ORDINANCE SECTION 5.412 ZONE CHANGE CRITERIA

Amendment Criterion #1

The amendment shall be consistent with the Comprehensive Plan.

Findings

(44) The Conservation Forest Lands Plan Designation includes forest lands that are to be retained for the production of wood fiber and other forest uses. An exception has been taken.

(45) Policy 1 of the Goal 4 element (Forest Lands) states:

> "Forest lands shall be conserved for forest uses. Forest uses and activities include the production of trees and the processing of forest products, watershed protection, fish and wildlife habitat, outdoor recreation, open space and scenic preservation, mineral and aggregate extraction and agriculture." (Emphasis added.)

(46) Policy 11 of the Goal 4 element states:

> "Before designated forest land is converted to another use, the productive capability of the land in each use should be considered and evaluated. . ." The proposed site and surrounding areas consist of site Class II forest lands.

(47) The County's Goal 5 element background report provides the following summary upon quarry demand.

> "The report states that the present quarries, although large, are limited in the amount of rock which can be produced. It is estimated, according to their projections, that these quarries will be able to produce only about one-half to two-thirds of the quantities needed in the County in 1985. In order to provide aggregate, additional quarries of large size will have to be developed. It is likely that gravel also will have to be imported by barge from the upper Columbia River or from other sources outside the State. Existing rock and aggregate sources, particularly those which are close to a major area of potential new construction should be kept available for further use because the rock and aggregate industry is vitally needed for the growth of an expanding community." (Emphasis added.)

(48) Policy 1 of the Goal 5 element states:

> "Mining and mineral extraction should be permitted where it is found that an economic deposit of material exists."

(49) Policy 4 of the Goal 5 element states:

> "Every effort should be made to protect the limited rock resources in the County by assuring that development does not preempt the use of these lands."

(50) Policy 6 of the Goal 5 element states:

> "Preventative measures shall be taken to assure that excessive noise, dust, vibrations and other nuisances associated with mining activities are avoided."

(51) The County's Goal 5 inventory of rock resource sites only identified existing DOGMI permit sites. The inventory did not provide a listing of potential future quarry sites, such as the subject site.

(52) The quarry and mining zone purpose statement in section 3.462 of the Ordinance reads:

> "The intent of this zone is to protect aggregate and other mineral sites from incompatible uses where such material is needed for primarily non-forest uses. Good quality aggregate and mineral sites are uncommon in the County and are vital to a healthy and growing economy. These sites should be protected from conflicting uses, primarily structures which would preempt an extractive resource uses." (Emphasis added.)

(53) Ordinance section 3.464 QM Application further explains:

> "There are a number of existing and potential rock pits and stockpile sites which are not designated on the County map due to lack of adequate information concerning the sites. It is anticipated that many of those sites will be designated QM upon further information and a Goal 5 analysis and Comprehensive Plan amendment."

Conclusion

At the time the County's Goal 5 inventory of rock resources was compiled, only existing DOGMI quarry sites were recognized; other potential developable rock resources were not inventoried. The County's Goal 5 background report recognizes that additional

large quarries will have to be developed to meet the County's rock needs beyond 1985. Goal 5 policies 1 and 4 support the protection and development of identified rock deposits. The Zoning Ordinance also acknowledges that a number of existing and potential quarry sites were omitted from the QM zone due to a lack of background information, and that many of these sites will need to be designated QM in the future. The proposed amendments are consistent with the clear intent of the Comprehensive Plan to identify and develop additional quarries to meet the County's aggregate needs.

Amendment Criterion #2

The revision will not interfere with the development or value of other land in the vicinity when compared to the public interest in allowing the zone change.

Findings

Findings 22 through 30 pertain to fish and wildlife habitat concerns.

Findings 31 through 38 pertain to noise concerns.

Findings 33 and 34 pertain to dust concerns.

Findings 39 through 41 pertain to economic benefits.

(54) The quarry and stockpile sites are located within one mile of U. S. Highway 101. There is an existing logging access road from U. S. 101 to the quarry and stockpile sites.

(55) The public interest could benefit in approving this zone change to allow an additional rock quarry in close proximity to the upcoming Cannon Beach junction highway improvement project.

(56) Forest lands primarily surround the proposed site. The adjoining lands' owner is also the owner of the quarry site. The proposed zone change and future quarrying activities will not conflict with ongoing forest management activities on adjoining lands.

(57) The involved quarry has been utilized for the past 10 to 15 years as a borrow site for forest and general commercial rock. These quarrying activities predate the establishment of the closest three residences.

Conclusion

This criterion involves the balancing of potential impacts upon surrounding properties with the potential public interest

benefits. Measures have been taken to reduce potential fish habitat, noise and dust impacts to acceptable levels. The resulting impacts will not significantly affect the value of residential lands to the east. The proposed use is compatible with forest management activities on adjoining F-80 lands. The positive economic benefits of the proposed amendments clearly outweigh the potential negative impacts upon surrounding properties.

The Board has reviewed the content of the January 13, 1986, letter submitted by Pete Anderson and has reached a determination that the surrounding residential property values will not be significantly impacted by the proposed zone change. The proposed activity areas are located at a greater distance from surrounding residences than the 600 foot distance referenced in the Anderson letter. The applicant has presented expert testimony in the form of the dBE Engineering noise study to demonstrate that the proposed activities can be conducted within the noise limitations established by DEQ. The Board also notes that the quarry site was developed and actively utilized prior to the establishment of the Jensen residential use.

Amendment Criterion #3

A demand exists for the development and uses listed in the proposed zone at the proposed location.

Factors which should be considered in determining whether or not this demand exists include (a) availability, including an assessment of the public facilities and services and roads to supply the area, and (b) an assessment of availability of other appropriately zoned property.

Amendment Criterion #4

The revision will not be detrimental to the interests of the community.

Note: Findings and conclusions pertaining to these two criteria will be combined since the involved information is interrelated.

Previous Findings 7 through 21 and Exception Factor #2 Conclusion pertain to demand.

Findings

(58) The applicant will utilize existing timber access roads to the stockpile area and quarry. These roads will remain open for forest uses.

(59) This use will not require any additional public facilities such as sewer or water and have no impact on public services such as schools or fire protection.

(60) An assessment of the alternative sites has been detailed in Findings 7 through 18 and the Goal Exception Factor #2 Conclusion statement.

(61) A November 20, 1985, letter has been received from Elden Everton, of the Oregon Department of Transportation, which indicates that this Department has no objection to the proposed commercial rock quarry and that the Circle Creek - U. S. 101 access is acceptable.

(62) A January 10, 1986, letter has been received from Randy Trevillian supporting the proposed amendments and noting the need for additional sources of aggregate to encourage competitive pricing within Clatsop County.

(63) A February 11, 1986, letter has been received from the Oregon Concrete and Aggregate Producers Association documenting the general need for additional aggregate sources along the coast and supporting the Bayview request.

Conclusion

The County's Comprehensive Plan and Zoning Ordinance document the general need for additional quarries in Clatsop County. The County Roadmaster's testimony supports this general demand. The applicant's specific needs have been detailed in the previous exception findings. A demand for the amendment has been demonstrated. The quarry development will not create any public facility or service demands. The proposed amendment will not be detrimental to the general interests of the community, but will instead provide positive economic benefits to the County, as a whole.

CONCLUSION AND DECISION

The record and the findings support the conclusion that the applicant has properly addressed the review criteria from section 20 of Chapter 660 Division 4 of the Oregon Administrative Rules, and section 5.412 of the Clatsop County Land and Water Use and Development Ordinance. The proposed amendments are consistent with the intent of the Clatsop County Comprehensive Plan.

It is the decision of the Clatsop County Board of Commissioners that the Bayview goal exception, Comprehensive Plan amendment, and Land and Water Use and Development map amendment are hereby approved.

BACKGROUND

A public hearing was held before the Clatsop County Board of Commissioners on April 2, 1986 to receive testimony upon whether blasting activities will be permitted in the newly created Quarry and Mining Zone to the west of the Cannon Beach junction.

FINDINGS

(1) The Planning Commission hearing record contains no specific discussion of blasting impacts. Planning Commission approval condition #1 was read into the record without reference to any blasting restrictions.

(2) The Board of Commissioners' record includes no specific discussion of blasting impacts.

(3) The approval ordinance proposed for adoption at the February 26, 1986 board meeting contained a condition which prohibited blasting. The applicant objected to this use limitation.

(4) The applicant anticipates being able to remove rock by means of dozer ripping, but rock formation conditions may necessitate blasting and the applicant must have this option available to him to assure efficient aggregate removal.

(5) Blasting would utilize a subsurface technique with charges placed in rock core drillings. This activity would be controlled by DEQ standards and not be a high noise activity as compared with surface blasting.

(6) Blasting is currently allowed at the same location with quarry developments in the F-80 Zone.

(7) The Quarry and Mining Zone use standards contain no limitations upon rock removal by the means of underground blasting.

CONCLUSION

The records of the previous Planning Commission and Board of Commissioner's public hearings contain no specific discussions upon blasting impacts or the need to restrict blasting activities at the involved quarry site. The Planning Commission's recommended condition of approval #1, as read into the record, did not contain any limitations upon blasting.

If rock conditions are such that blasting is required, the applicant should be allowed to utilize this means of rock removal. Such activities are common to typical quarry operations and should be allowed at the Bayview quarry in the newly created Quarry and Mining Zone.

EXHIBIT A
PART 3
ALTERNATIVE 2

Staff recommends the following conditions for approval:

1. Preventative measures shall be taken to assure that excessive noise, dust, vibrations, and other nuisances associated with mining activities are avoided. The applicant shall coordinate with the noise pollution control section of the Department of Environmental Quality to mitigate possible excessive noise emissions from rock extraction and sorting operations. Steps to lessen noise pollution impacts on nearby residential/commercial properties should include time of operations.

2. The proposed use will require protection of water quality in nearby Circle Creek and its tributary creeks. The applicant shall coordinate with the Oregon Department of Fish and Wildlife for proper drainage design from the pit so water turbidity levels are not increased in Circle Creek and Square Creek. Settling basins as well as an upland site to dispose of non-usable material shall be required if pit drainage is directed to Circle Creek.

3. Obtain a valid permit from the Oregon Department of Geology and Mineral Industries for the rock quarry operations and the stock pile site.

4. Rock crushing opeartion shall comply with Air Contaminate Discharge Permit issued by the State Department of Environmental Quality and Section 3.470 of Clatsop County Ordinance 80-14.

5. State and Federal Permits. Applicants for developments which require a state or federal permit shall submit to the Planning Director a copy of: the complete permit application, other surrounding material

6. All private access and service roads shall be maintained in a dust-free condition during intensive operations.

7. Prior to operations which will result in open excavation with a depth of ten feet or more and a slope steeper than one vertical foot to two horizontal feet and which is located within 100' of a residentially occupied structure, a fence shall be erected at least ten feet outside the edge of the excavation at least four feet in height, to control access to such excavation.

8. No mining or structural improvements shall occur within the riparian setbacks as specified in S4.502. In no case, however, shall the minimum setback from a waterway be less than 25'.

9. Clatsop County Department of Planning and Development shall be notified in advance by the applicant, lessee or purchaser of rock material of the location of any fill or riprap for which the rock or mined material will be used. This condition is limited to all areas identified in the Clatsop County Comprehensive Plan as an Esturaine Resource Coastal Shorelands, Beach and Dune areas and significant wetland areas. All permits required by local, state and federal agencies for fill or riprap must be approved prior to placement within one of the areas identified above.

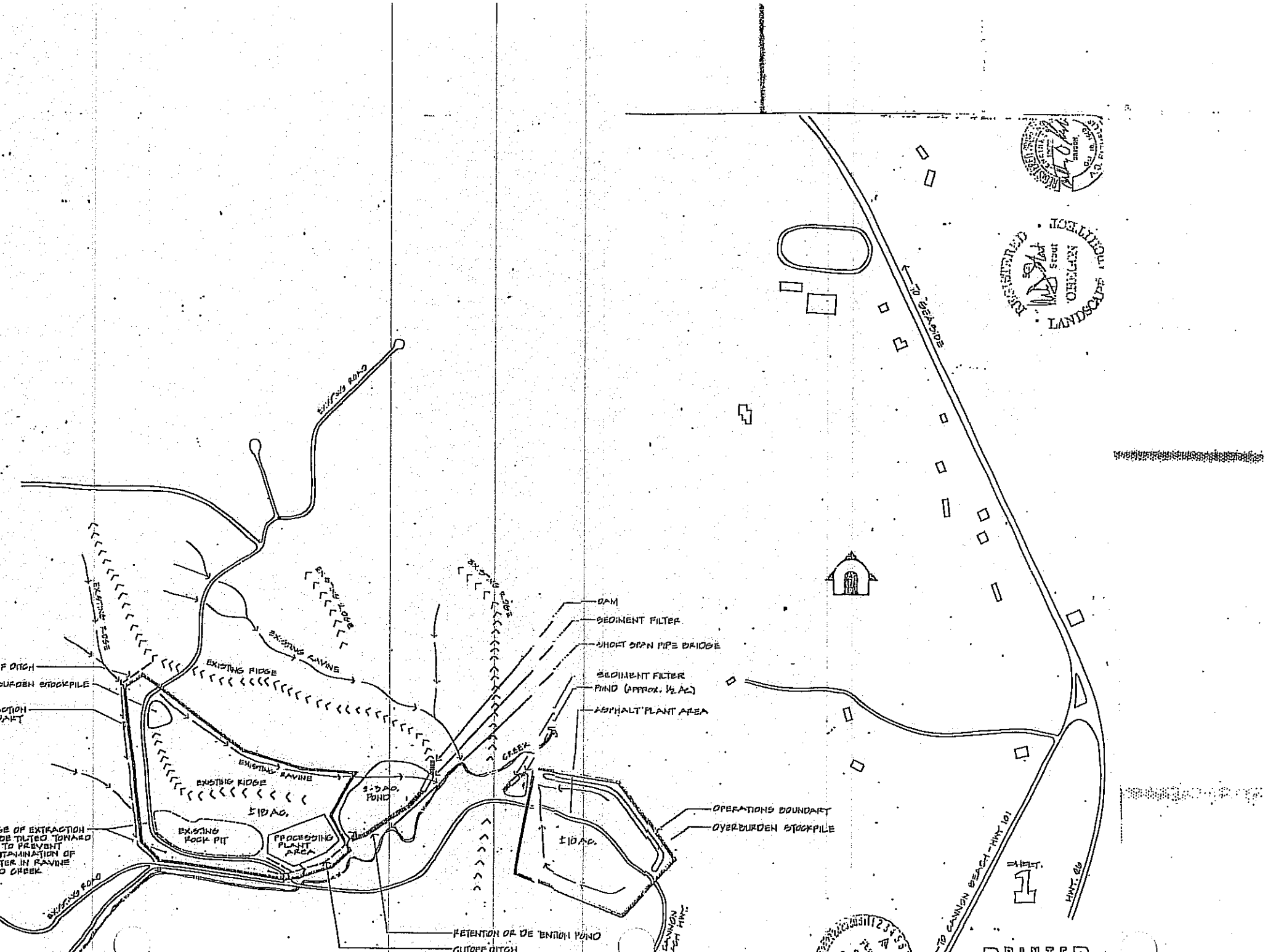
10. Reclamation plans for surface mining opeartions must show that they are consistent with the Comprehensive Plan.

11. Provide boundary line surveys of the quarry and stock pile sites for purposes of defining the affected areas proposed to be re-zoned into the QM zone district.

12. Obtain a Clatsop County Land and Water Development and Use permit to validate that conditions 1,2,3,4,5,6,7,8,and 11 have been completed prior to rock extraction and stock pile operations.

13. Obtain a Clatsop County Land and Water Development and Use permit prior to placement of a concrete, ready-mix, or asphalt batching plant.

14. Obtain a Clatsop County Land and Water Development and Use permit for signs, offices, warehouses and maintenance buildings appropriate to uses permitted in the QM zone.


EXISTING ROAD
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EXISTING RIDGE
EXISTING RAVINE
EXISTING RIDGE
±10 AC.
±3 AC. POND
±10 AC.
EXISTING ROCK PIT
PROCESSING PLANT AREA
EXISTING ROAD
DAM
SEDIMENT FILTER
SHORT SPAN PIPE BRIDGE
SEDIMENT FILTER POND (APPROX. ½ AC.)
ASPHALT PLANT AREA
CREEK
OPERATIONS BOUNDARY
OVERBURDEN STOCKPILE
RETENTION OR DETENTION POND
CUTOFF DITCH
TO BRIDGE
TO CANNON BEACH - HWY 101
SHEET 1
HWY 101

GRASS SEED MIX

PERENNIAL RYEGRASS	10 LBS./AC.
TALL FESCUE	15 LBS./AC.
ORCHARD GRASS	7 LBS./AC.
ALFALFA	10 LBS./AC.

PLANTING PROCEDURE FOR GRASS

1. PLANT IN EARLY AUTUMN.
2. SCARIFY SOIL.
3. BROADCAST SEED AT GIVEN RATE.
4. RE SCARIFY SOIL.

CLATSOP COUNTY

TO MANZANITA

FINISHED SLOPE 1½:1

REDISTRIBUTE ENOUGH EXCESS STOCKPILED OVERBURDEN UNIFORMLY OVER SITE TO SUSTAIN PLANT GROWTH AND REVEGETATE

MAINTAIN POND AND FILTER SYSTEM UNTIL COVER IS ESTABLISHED IN OPERATION AREAS

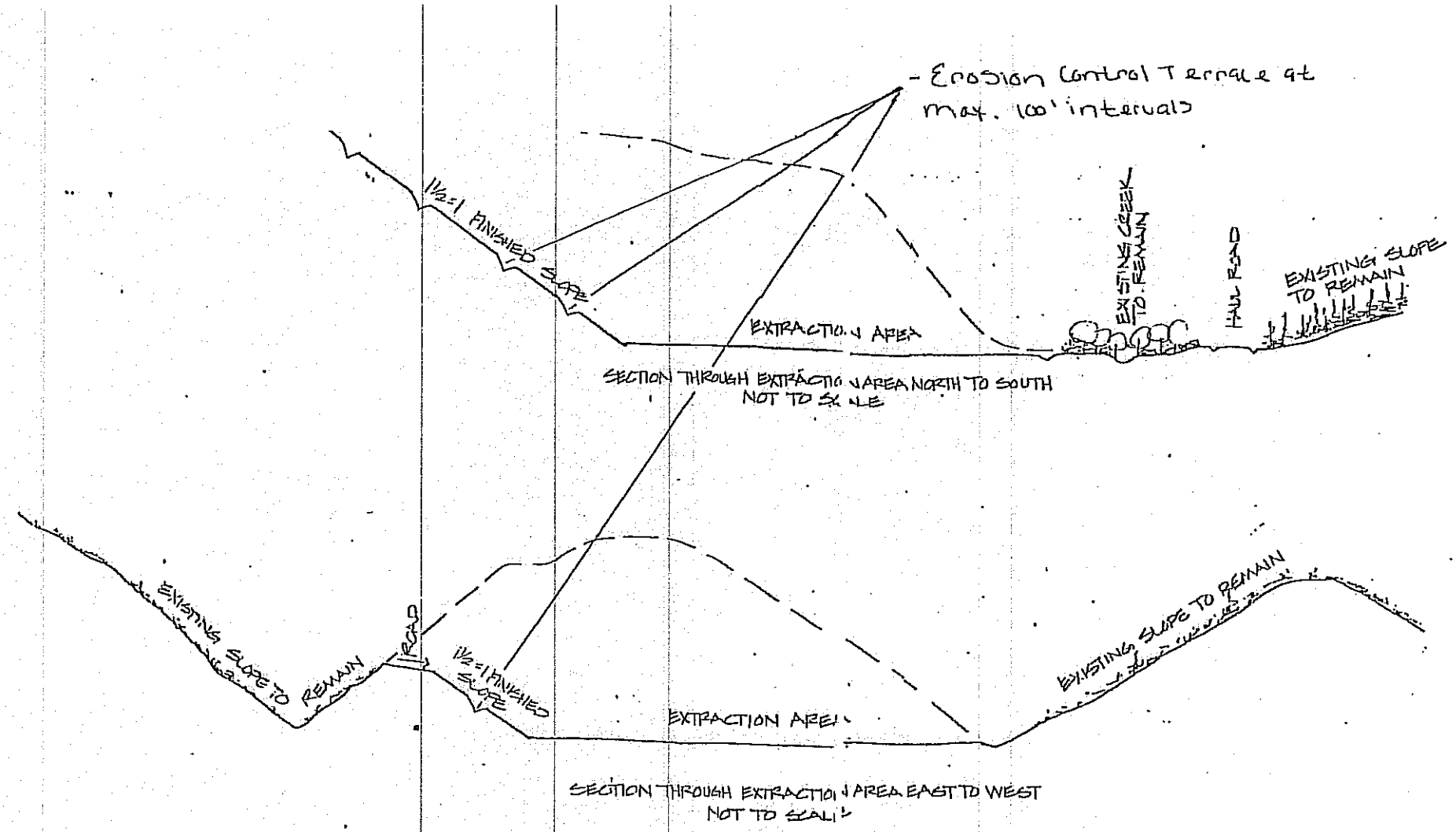
PLANT GRASS, ALDER AND WILLOW SPECIES ON BERMS BUILT NEAR CREEK AREAS TO AID EROSION CONTROL

REDISTRIBUTE ENOUGH EXCESS STOCKPILED OVER BURDEN UNIFORMLY OVER SITE TO SUSTAIN PLANT GROWTH AND REVEGETATE

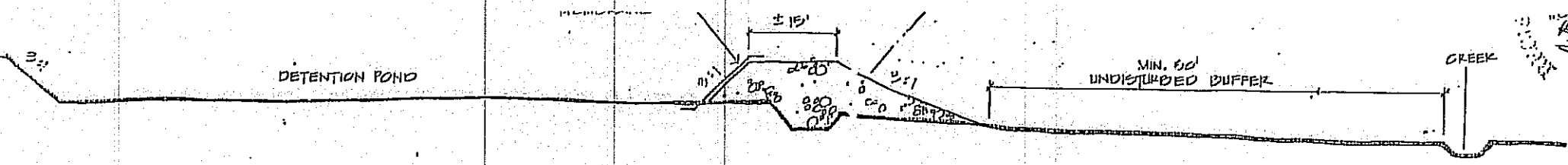
TO GARIBALDI - HWY. 101

HWY. 26

SHEET

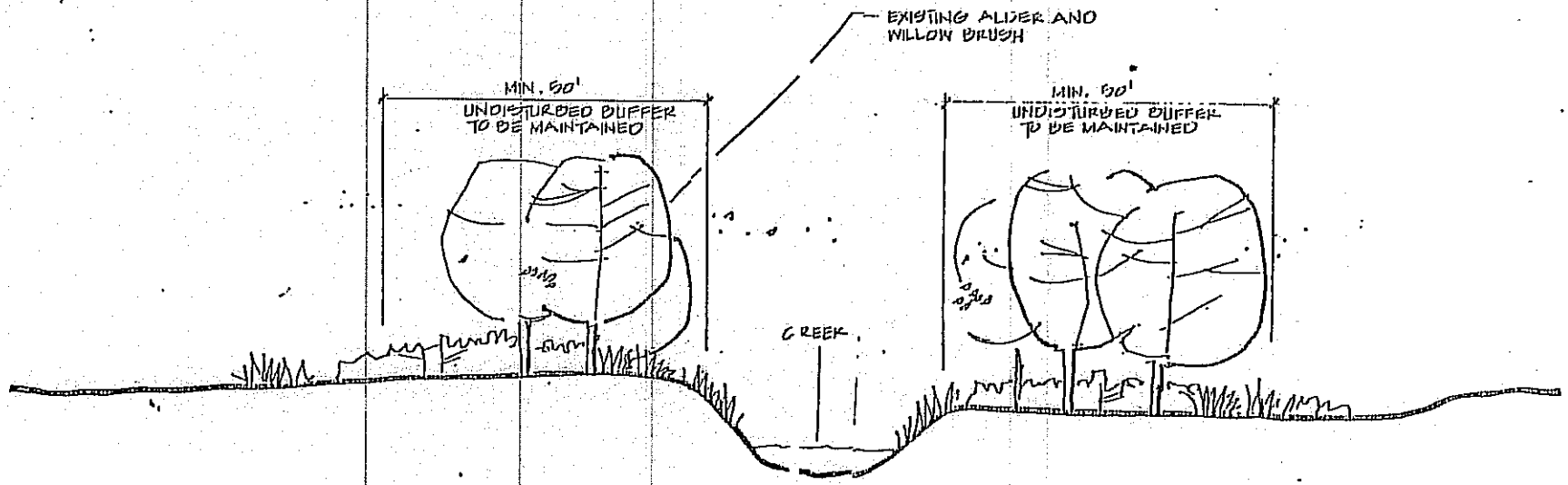

- Erosion Control Terrace at max. 100' intervals
1½:1 FINISHED SLOPE
EXTRACTION AREA
EXISTING CREEK TO REMAIN
HAUL ROAD
EXISTING SLOPE TO REMAIN
SECTION THROUGH EXTRACTION AREA NORTH TO SOUTH
NOT TO SCALE
EXISTING SLOPE TO REMAIN
ROAD
1½:1 FINISHED SLOPE
EXTRACTION AREA
EXISTING SLOPE TO REMAIN
SECTION THROUGH EXTRACTION AREA EAST TO WEST
NOT TO SCALE
EXISTINGS TREES TO REMAIN
1½:1 FINISHED SLOPE
EARTH PLANT AREA
OVERBURDEN STOCKPILE BERM (SEED BERM AND SLOPE WITH GRASS TO CONTROL EROSION AND RUNOFF)
1½:1 FINISHED SLOPE

SHEET 3



SECTION THROUGH STORM WATER DETENTION FACILITY

NOT TO SCALE



SECTION THROUGH CREEK NEAR PROCESSING PLANT AREA

SCALE

SHEET 4

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

BOOK 685 PAGE 129

ORDINANCE NO. 87- 11

(AN ORDINANCE AMENDING THE CLATSOP
(COUNTY COMPREHENSIVE PLAN AND ZONING
(MAP, TAKING AN EXCEPTION TO GOAL 4
(FOREST LANDS, AS ADOPTED BY THE BOARD
(OF COUNTY COMMISSIONERS, ADOPTING
(CERTAIN FINDINGS, RESCINDING
(INCONSISTENT PROVISIONS

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

OCT 2 8 1987

This ordinance shall be known as the Bayview Transit Mix Rock Quarry Project Amendment (LUBA Remand).

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Comprehensive Plan, Background Reports, Community Plans and Comprehensive Plan/Zoning Map. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the Clatsop County Comprehensive Plan and Zoning Map, amending the Exception Statement.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The Board of County Commissioners has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Board held a public hearing on this ordinance pursuant to law on August 12, 1987 and September 9, 1987.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supercede, control and repeal any inconsistent provision of the Clatsop County Comprehensive Plan, as amended, the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effective 90 days following the date of recording of this Ordinance.

SECTION 8. ADOPTION CLAUSE.

The Board of Commissioner's hereby adopts the findings and conclusions set forth in Exhibit "A" and attached hereto and by reference herein made a part of this ordinance in its entirety together with the conditions set out in Exhibit C of Exhibit A attached hereto.

ENACTED this 28th day of October, 1987.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

BY _____
Bob Westerberg, Chairman

BY _____
Roger A. Berg, Commissioner

BY _____
Deborah Boone, Commissioner

Vote: Aye: Roger A. Berg & Bob Westerberg

Nay: Deborah A. Boone

Abstention: none

Attest: _____
Recording Secretary to the Board

Date: October 28, 1987

Date of first reading: October 14, 1987

Date of second reading: October 28, 1987

Date Ordinance submitted to Board of Commissioners: October 6, 1987

EXHIBIT "A"

STATEMENT OF STANDARDS, FACTS AND JUSTIFICATION IN SUPPORT OF BAYVIEW TRANSIT MIX, INC. REQUEST FOR ZONE CHANGE FROM FOREST-80 ZONE TO QUARRY AND MINING ZONE, INCLUDING EXCEPTION TO GOAL 4, TOWNSHIP 5 NORTH, RANGE 10 WEST, WILLAMETTE MERIDIAN, PORTIONS OF TAX LOTS 700 AND 1;000; TOWNSHIP 5 NORTH, RANGE 10 WEST, WILLAMETTE MERIDIAN SECTION 4, PORTIONS OF TAX LOT 100, CLATSOP COUNTY, OREGON

PART I. LIMITED ISSUES FOR DECISION BEFORE THE BOARD OF COMMISSIONERS

This is a remand proceeding arising out of our approval of Ordinance No. 86-10 dated April 2, 1986. After receiving a substantial amount of testimony, we adopted that ordinance which approved a revision to the Clatsop County comprehensive plan and zoning map by creating a quarry and mining zone. Opponents, Mr. & Mrs. Otto Jensen appealed our decision to the Land Use Board of Appeals ("LUBA"). LUBA remanded the matter on August 6, 1986 for further consideration of specific issues by the County. In this remand matter, opponents, Mr. and Mrs. Jensen, are joined by Howard E. Johnson and Sons, Inc. By resolution and order directed to interested parties dated May 27, 1987, we scheduled further proceedings on this matter. The resolution and order dated May 27, 1987 specifically limited the remand proceeding to matters raised in the opponents First and Third Assignments of Error. After careful consideration of the LUBA opinion and the doctrine of law of the case, we find that LUBA has limited this remand proceeding to the following questions:

A. Alternative site criteria: Can the proposed aggregate use be "reasonably accommodated" on nonresource land that would not require an exception?

LUBA limited this question to three issues:

Issue No. 1.

Can the Johnson QM Zone reasonably accommodate the proposed quarry?

Issue No. 2.

Does substantial evidence support Bayview's cost estimate for crushed rock from the proposed quarry?

Issue No. 3.

Do the Ordway and Darling Quarries have sufficient rock quantity and quality to support the proposed quarry?

B. Alternative site criteria: Does location of the proposed quarry at the Bayview site cause "significantly more adverse" consequences than location of the quarry at another site requiring the goal exception?

LUBA limited this question to three issues:

Issue No. 4.

Do the five alternative sites listed by the County (Cavenham Highway 101 (04-0028), Halvorsen (04-0032), Cavenham Pit Run (04-0036), McEwen Clay Borrow Pit (04-0048), and Stevens River Borrow Pit (04-0049)) have sufficient quantity and quality of rock to support the quarry?

Issue No. 5.

What are the characteristics of the alternative sites?

Issue No. 6.

What are the impacts that would "typically result" from locating the proposed quarry at the sites and are these impacts less severe than location of the quarry at the Bayview site?

C. Compatibility.

Issue No. 7:

Is the proposed quarry "compatible" with the adjacent residential uses?

D. Goal 5 Conflicts.

Issue No. 8:

What are the economic, social, environmental and energy consequences to Goal 5 resources of allowing processing of crushed rock at the proposed site?

Issue No. 9.

Given the economic, social, environmental and energy consequences, the County must "develop a program to achieve the Goal."

We find that these questions are the only matters before the Board as a result of the LUBA remand order. Each question is specifically addressed in Part IV below.

PART II: NATURE OF DEVELOPMENT

1. Action Supported by Statement.

This Statement supports approval of a Plan Designation Amendment and Zone Change Request by Bayview Transit Mix, Inc. The applicant seeks a change in a comprehensive plan designation on the site from Conservation Forest Lands to Conservation Other Resources and a zoning change from F-80 (Forest-80) to QM (Quarry and Mining). The requested changes will permit applicant to establish a quarrying, crushing and stockpiling operation on the site. This approval is accompanied by 21 conditions, a copy of which is attached hereto as Exhibit "C". Applicant intends to use greater than 25 percent of the aggregate extracted from the site in nonforest uses and has requested the comprehensive plan designation change and zoning ordinance change to permit commercial rock extraction activities.

2. Site Description.

The proposed site consists of two irregularly shaped parcels located in Township 5 North, Range 10 West, Willamette Meridian (portions of Tax Lots 700 and 1,000 and portions of Tax Lot 100 of Section 4), Clatsop County, Oregon. The site is located due west of U.S. Highway 101 near the intersection of State Highway 26. The area affected by the proposed changes is approximately 30 acres in size and is owned by Cavenham Forest Industries (formerly Crown Zellerbach). The applicant has obtained a lease from Cavenham Forest Industries ("Cavenham") which will allow it to conduct aggregate extraction and related activities. The proposed site is located concurrent with an existing aggregate pit that has been used by Cavenham for many years as a source of rock. The general area for which the quarry is proposed has been recently logged and does not, at present, support marketable timber.

Applicant has proposed an extraction site which is approximately 20 acres in size and is located on the south side

of an existing ridge coterminous with the west side of the existing Cavenham Quarry site. In addition, approximately 500 feet to the east, applicant has proposed a 10-acre stockpiling site. An existing creek, Square Creek, runs adjacent to the proposed extraction area. Approximately 2,800 feet to the north and east of the proposed extraction area and approximately 800 feet to the north and east of the proposed stockpile area is a mobile home owned by Otto and Pat Jensen ("Jensen"). The Jensen home is located in an AF-20 zone by virtue of obtaining a conditional use permit. Farther to the north and east are other residences and commercial developments.

The Clatsop County Land and Water Development and Use Ordinance ("LWDUO") provides that the proposed site is located in an F-80 (Forest-80) zone. The land use plan designation for the proposed site is Conservation Forest Lands.

3. Summary of Proposed Action.

The applicant has proposed to institute a new commercial extraction and processing operation at the already existing Cavenham aggregate quarrying site and adjacent stockpile area. The aggregate removed from the site will be used in primarily nonforest uses. As a result, applicant has requested a land use plan designation change and zoning change to allow the proposed use to occur on the site. As shown on the applicant's site plan, setbacks, vegetation buffers, berm barriers, sedimentation ponds and other measures will be employed to reduce the environmental impact of the proposed operation. Applicant has applied for a Department of Geology and Mineral Industries ("DOGAMI") Reclamation Permit and has agreed to obtain all necessary Oregon State Department of Environmental Quality ("DEQ") approvals.

PART III: ISSUES FOR DECISION ON REMAND

Issue No. 1.

Can the Johnson QM zone reasonably accommodate the proposed quarry?

With regard to the Johnson QM site, we find the following relevant facts in the record:

The Johnson QM site (located on Exhibit A, attached) is located 3/4 mile north of the Cannon Beach Junction and 1/8 mile east of Highway 101. It has an estimated area of 16 acres and remaining rock at about 155,000 cubic yards. After setbacks,

overburden, safety and reclammation factors are taken into consideration, the Johnson QM Quarry will produce approximately 70,000 cubic yards. The use proposed by the applicant is a long-term aggregate extraction facility which would help to meet Clatsop County's aggregate demand over an extended period of time (20 years). Applicant proposes to produce a full range of commercial aggregate products. A long-term source of supply is required to satisfy several necessary business considerations, including lead time to prepare bids on large projects and amortization of capital equipment costs. The 100,000 cubic yard per year projected use at the site is based on Bayview's own aggregate consumption, sales to the public and allowance for future market expansion. The primary market area to be served by the proposed quarry is the Cannon Beach to Warrenton strip, although aggregate operations in the area, including Bayview and Johnson, successfully compete for projects as far away as Knappa. The demand in this market area is estimated to be 97,000 cubic yards per year by Johnson's geologic consultant. However, production figures supplied by Johnson indicate that Johnson alone has produced a minimum of 86,888 cubic yards of crushed rock per year for the last 10 years. In addition, DOGAMI indicates that aggregate production for nonforest uses in the Cannon Beach-Seaside area alone is approximately 129,000 cubic yards per year. This DOGAMI figure does not include imports into the area. Bayview alone has imported an average of 22,791 cubic yards of crushed aggregate per year for the years 1982-1985. This Bayview import figure does not include round river rock imports. Bayview's project management engineer estimates the annual market demand to be 250,000 cubic yards. We find that the 97,000 cubic yard figure offered by Johnson's geologic consultant is not reliable. Johnson's own production figures, without taking into account imports or other rock produced, indicate that the annual consumption in the market area is significantly higher. In addition, it is unclear how much of the Rippet Quarry production needs to be added to the Johnson curshed rock figures. The DOGAMI production figures for the area are based on actual recorded output by the producers, and we find that the DOGAMI figure presents a more realistic figure for market area demand. However, even the DOGAMI production figures do not take into account rock which is imported into the County. We find that an accurate estimate of the aggregate demand in the market area must include all sources, including aggregate that is imported. Accordingly, we find that the DOGAMI production figures must be increased by the amount of rock that is imported in the County. Bayview alone has imported in excess of 22,791 cubic yards of crushed aggregate material per year in the market area during the years of 1982-1985. We find that

adding this figure to the DOGAMI or Johnson production figures results in an average annual demand in the Cannon Beach to Warrenton market area of approximately 150,000 cubic yards per year. We note that this figure is conservative in that it does not include the rock which is used for forest uses or round rock which is imported by Bayview. We find that our conclusions as to the annual demand in the market area are bolstered by the distances of Astoria, Warrenton and Hammond from the Cannon Beach junction. We find that areas within 20 miles of the Cannon Beach junction can be considered part of the market area to be served by the proposed quarry. Mr. Redfern, in his rebuttal statement, gives distances which would place Astoria, Warrenton and Hammond at least 25 miles from the Cannon Beach junction. We find that Mr. Lampi checked the distance with an odometer and provides a more accurate description of how far each of these cities lies from the Cannon Beach junction. We find that the east boundary of Hammond lies 18.3 miles, not 27 miles, from the Cannon Beach junction. We find that the south boundary of Warrenton lies 13.8 miles, not 25 miles, from the Cannon Beach junction. We find that the south boundary of Astoria is 18.5 miles, not 29 miles, from the Cannon Beach junction. The distance discrepancy in the Redfern report tends to artificially reduce the extent of the market area and is a reason why the demand figure offered by Mr. Redfern is low. The supply available at the Johnson QM Quarry (04-0011) for extraction is approximately 70,000 cubic yards. In the words of the opponents' geologist, this existing quarry is "pretty well used up." It may be possible to extend the life of this quarry by excavating the quarry floor. Excavating the floor could produce approximately 145,000 cubic yards of additional material, but this extraction would add approximately $1.00 to the cost of each cubic yard produced. The average price for aggregate materials produced by Johnson is $6.00 per cubic yard. Although Johnson claims that its average price for aggregate is approximately $5.00 per cubic yard, we find that a number of factors support our conclusion that the average Johnson price is $6.00 a cubic yard. First, Bayview's purchase of rock from Johnson averages approximately $6.00 per yard. Second, price quotes obtained by Mr. Gamble indicate that the average price of Johnson rock is in excess of $6.00 per cubic yard. Third, the Johnson bid price for rock to be incorporated in the Cannon Beach junction job was in excess of $6.00 per cubic yard. Accordingly, we find the $5.00 per cubic yard price claimed by Johnson is unrealistic, and the average price of aggregate produced by Johnson is $6.00 per cubic yard. The average cost for aggregate materials produced by Bayview is $4.30/$4.45 (our discussion of the Bayview price in Issue No. 2 below is incorporated herein).

As demand in the market area is 150,000 cubic yards per year, we find that the Johnson QM Quarry (04-0011) has a service life of less than one-half year because only 70,000 cubic yards of material is located at that quarry. We find that even if below-floor extraction occurs, the total amount of material at the Johnson QM Quarry would be 215,200 cubic yards. Because this combined figure is less than a two-year supply, this quarry does not present a possible long term source of supply for the use proposed by Bayview. Further, economic factors can be considered in determining whether the Johnson QM site can reasonably accommodate the proposed use. Because aggregate material from the Johnson operation is priced at approximately $6.00 per cubic yard, it is considerably more expensive than the projected cost of aggregate ($4.30/$4.45 per cubic yard) at the proposed quarry. The price differential between the price of the Johnson product and the cost of the Bayview product ($1.55 to 1.70) is reflected in the price that consumers in Clatsop County pay for aggregate-based materials and is a sufficient economic reason, in and of itself, to conclude that the Johnson site cannot reasonably accommodate the proposed use. The additional $1.00 per cubic yard cost necessarily incurred by extraction below the quarry floor would serve to enlarge the differential between the price of Johnson's product and the cost of the product produced at the proposed quarry. Such an increase in the price differential makes it economically unreasonable to rely on the higher priced aggregate which could be extracted below the floor of the Johnson QM Quarry. We conclude that the Johnson QM Quarry cannot reasonably accommodate the proposed use, and further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

As discussed above, we have concluded that LUBA required us to address whether or not Johnson can reasonably accommodate the proposed use. We find that this question is directed only to the Johnson QM zone and have concluded that the Johnson QM Quarry cannot reasonably accommodate the proposed use. In the event LUBA's discussion of "Johnson" on this issue would be deemed to include the Johnson F-80 site (no DOGAMI permit) and/or the existing Rippet Quarry (04-0007) (both located on Exhibit A, attached) operated by Howard E. Johnson and Sons, Inc., we find the following facts in the record:

The Johnson Quarry operation is presently not operating in the QM zone but has advanced into the F-80 zone located to the southeast of the Johnson QM zone. Less than 75 percent of the materials extracted from the Johnson F-80 site are used on forest lands and forest zones. No land use

approvals have been obtained for operation of an aggregate extraction facility in the F-80 zone. The size of the F-80 parcel owned by Johnson is approximately 10.2 acres. A sizeable portion of this parcel is located across the Necanicum River (on the south side) from the Johnson extraction and processing operation. The Necanicum River, a Class I stream, runs directly through this 10.2 acre site. The site is bordered on the west by an RA-5 zone which extends to the Necanicum River to the south. Setbacks for quarry operations are required from an RA-5 zone and from the Necanicum River. Presently, no direct access to the Johnson processing operation exists from the portion of this site located to the south of the Necanicum River. In June, 1987, a blasting episode at the Johnson operation caused fly rock to be placed on top of structures in the area. The source of this fly rock problem was either the Johnson QM zone or the Johnson F-80 zone. As discussed below at pages 9 through 11 of these findings, the Johnson figures concerning the amount of material available for extraction at the Johnson F-80 site and the Rippet Quarry are inherently less credible than the Bayview estimates of available material for the same two sites. The Johnson F-80 zone contains approximately 300,000 cubic yards available for extraction. The Rippet Quarry has been gradually expanded beyond its original existing boundary, but at present, the extraction area is approximately 5 acres in size. No County land use approval has ever been obtained for this extraction site. The nonconforming use area of the Rippet Quarry contains approximately 244,000 cubic yards of aggregate material. A high, nearly vertical development face exists at the Rippet Quarry. This face creates a risk of falling material which jeopardizes safety and causes reclamation problems which may result in additional expense. Material extracted from the Rippet Quarry is transported across U.S. Highway 101 to the Johnson processing operation located in the QM Quarry. Rock extracted from the Johnson F-80 Quarry and the Rippet Quarry both comprise part of the aggregate product mix which Johnson sells in the market area at an average price of approximately $6.00 per cubic yard.

The Johnson operation charges the applicant a different price for raw aggregate to be processed at the Johnson Quarry by applicant's machinery depending on whether that raw material is processed by applicant into a finished product for commercial work (approximately $8.70 per cubic yard) or for governmental work (approximately $7.70 per cubic yard). Johnson's pricing policies for aggregate to be incorporated into bonded jobs create a price contingency of $1.00 per cubic year of material which makes bidding difficult.

Bayview has proposed a long-term, high-quality aggregate quarry which is projected to produce approximately 100,000 cubic yards of aggregate material per year. The Bayview product cost at the proposed quarry is $4.30 per cubic yard. Aggregate products are necessary for a healthy and active economy in Clatsop County. As discussed below at page 9 of our findings, Policy 17 of the County Comprehensive Plan, Goal 4, County-wide Element prevents expansion of nonforest uses under Type II Procedure when such expansion is not substantially confined to the existing site.

The standards set forth in ORS 197.732(1)(c)(B) and OAR 660-04-002(2)(b), and addressed in Issue No. 1 ("reasonably accommodate"), apply only to areas that do not require an exception. Because the Johnson F-80 site and the Rippet Quarry are located in F-80 zones, Policy 17 requires that expansion of the sites can be accomplished only through an exception process. The disturbed area in the Johnson F-80 Quarry is approximately 1 acre. Both the Johnson and the Bayview estimates regarding the amount of rock available at this site contemplate expansion of the site to a minimum of 7.4 acres. We conclude that full use of the Johnson F-80 Quarry requires an exception under Policy 17 of the County-wide Goal 4 element, and the "reasonably accommodate" standard does not apply to the Johnson F-80 site. The extraction area of the Rippet Quarry is approximately 5 acres in size, and the present extraction activity is present on all 5 acres which may be considered a nonconforming use. This nonconforming use is subject to the "reasonably accommodate" standard. However, because the Rippet Quarry is located in a F-80 zone and any expansion beyond 5 acres requires an exception to be taken, both the Rippet Quarry and the Johnson F-80 site will be discussed and analyzed under Issues 5 and 6 below with reference to the alternative "reasons" exception standard concerning significant impacts that would typically result in locating the proposed use at either site.

We find that we must analyze the existing 5-acre Rippet Quarry as a nonconforming use in an F-80 zone under the "reasonably accommodate" standard. Because many of the factors that must be analyzed at Rippet Quarry also are present at the Johnson F-80 site, we will analyze both sites under the "reasonably accommodate" standard. We do this without altering our conclusion that an exception is required to expand the Johnson F-80 site and the Rippet Quarry. The applicant has proposed a long-term extraction facility which would help meet Clatsop County's aggregate demand over an extended period of time (approximately 20 years). The central components of long-term use are the availability of approximately 100,000 cubic

yards of rock per year for a minimum of 20 years and rock which meets test specifications which insure that average production from a site consistently meets necessary contract standards. For purposes of our discussion, we have assumed that the rock extracted from the Johnson F-80 zone and the existing Rippet Quarry meets the necessary test specifications. With regard to the amount of material available at the Johnson F-80 site and the existing Rippet Quarry, we accept the figures provided by Geologist See in conjunction with consultant Mr. Lampi as more credible than the figures of available material offered by the opponents. Messrs. See and Lampi clearly set forth the methodology by which they arrived at their material figures. The opponents' geologists do not make estimates for these two sites on their own, but apparently rely on the estimates of surveyor Crites. Mr. Crites does not provide methodology which would help us to understand how he arrived at his figures. In addition, we find that Mr. Crites has significantly overestimated the quantity available at the Johnson F-80 site. For Mr. Crites' estimate of 2.2 million cubic yards at the Johnson F-80 site to be accurate, the entire 10.2-acre, F-80 parcel would need to be covered with a rock deposit approximately 103 feet deep considering Mr. Crites' expansion factor. We note that the portion of the 10.2-acre site south of the Necanicum River is a low-lying area. In addition, we note that the Necanicum River runs through the site and will not be available for extraction. In addition, we note that setback along the Necanicum River must be preserved, and a setback is required for the RA-5 zone to the west of the Johnson F-80 site. Subtracting these areas unavailable for extraction from the total 10.2-acre site leaves approximately 7.4 acres available for extraction. To obtain the quantity of the estimate bid by Mr. Crites, this 7.4-acre area would need to be covered with a rock deposit of approximately 153 feet in height considering Mr. Crites' expansion factor. The topography of the area shows that an average of 90 feet of extractable material is available down to the established quarry floor. In addition, we find, as shown in the rebuttal analysis of Mr. Lampi, endorsed by Mr. See, the discrepancy in the opponents' figures is also due to their failure to consider setback requirements, reclamation requirements and overburden limitations. We specifically adopt this rebuttal analysis. For these reasons, we find the quantity estimates provided by the Johnson geologists lack credibility, and we specifically adopt the quantity figures developed by Mr. See in conjunction with Mr. Lampi. In addition to the issue of credibility concerning the Johnson estimate of rock available at the Johnson F-80 and Rippet sites, we note that Geologist Redfern, in his oral testimony before us, indicated that the quantity figures for the Rippet Quarry which he endorsed were dependent upon

"reasonable expansion" of the Rippet Quarry. As we have already discussed above, any such expansion would require an exception to be taken. Accordingly, we find that nonconforming use area at the Rippet Quarry has approximately 244,000 cubic yards of material available for extraction, and the Johnson F-80 site has approximately 300,000 cubic yards available for extraction. Consistent with our demand analysis above, the combined volume of these two quarries which is available for extraction represents only approximately a 3-1/2 year supply. Because the applicant has proposed a site that is projected to produce approximately 100,000 cubic yards for 20 years, we find that these two sites, whether considered independently or considered together, do not provide a long-term source of supply that has been requested by Bayview given the average County demand for aggregate. Given the lack of supply present at these two pits, we find it is unwise for the County to continue to rely primarily on Johnson to supply the market area with essential aggregate products. Further, we find that economic factors are important considerations in determining whether the Johnson F-80 site and the existing Rippet Quarry can reasonably accommodate the proposed use. Because aggregate material produced from the Johnson operation is priced at approximately $6.00 per cubic yard, it is considerably more expensive than the cost of aggregate ($4.30/$4.45 per cubic yard) at the proposed quarry. This differential between the price of the Johnson product and the cost of the Bayview product ($1.55-1.70) is reflected in the price consumers in Clatsop County pay for aggregate-based materials and is a sufficient economic reason to conclude that the Johnson site cannot reasonably accommodate the proposed use. In addition, we find other economic factors, which are a part of the Johnson operation, increase the cost of aggregate-based materials to consumers in Clatsop County. Under certain situations, Johnson charges a surcharge for material that is processed by Bayview into a finished product for commercial work (approximately $1.00 per cubic yard), as opposed to raw material that is processed by Bayview into a finished product for government work. We also find that in certain situations, Johnson's pricing policies for aggregate to be incorporated in bonded government jobs create price contingencies of up to $1.00 per cubic yard. We find that such price contingencies prevent the applicant from bidding on projects that are available in the market area. We find these pricing policies have an economic effect on the final price that is paid by the consumer in Clatsop County for products that incorporate aggregate material. We find that at the present time, Johnson is essentially the sole source of supply of high-grade aggregate material in the County. We find that the County roadmaster has indicated that increased competition in the aggregate industry would be good for the

County. Because Johnson's sole source position injects an unacceptable level of uncertainty into project bidding and causes price differences for similar kinds of work which are not related to material costs, the sole source of supply from the Johnson operation has negative economic effect on the price of gravel and aggregate products in the County. Because the Johnson operation, which includes the Johnson F-80 site and the Rippet Quarry, does not have enough quantity of material to sustain long-term County demand, because the price of aggregate produced by Johnson is substantially higher than the projected cost of production at the Bayview Quarry, and because Johnson pricing policies have a negative effect on the price consumers in Clatsop County pay for aggregate based products, we conclude that the Rippet Quarry and the Johnson F-80 site, whether considered independently or together, cannot reasonably accommodate the proposed use. Finally, we conclude that, in the event the existing Rippet Quarry and the Johnson F-80 site were deemed to be subject to the "reasonably accommodate" standard, these two sites, considered independently or together, cannot reasonably accommodate the proposed use. Accordingly, we conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 2.

Does substantial evidence exist to support Bayview's cost estimate from the proposed quarry?

We find the following facts in the record relevant to this issue:

Bayview has estimated that it can produce aggregate from the proposed site at a cost of $4.30 per cubic yard in 1985 dollars. This estimate is based on production of relatively expensive types of rock. The average production cost of Bayview for a full range of products to be produced will be less than the cost of these more expensive types of rock. Bayview's expert, Mr. Walter R. Gamble, has analyzed the Bayview estimate. Mr. Gamble is a registered professional engineer with considerable experience in project management and budget supervision in the aggregate industry. Mr. Gamble's conservative projection of Bayview's cost per yard is $4.30 in 1985 dollars or $4.45 per cubic yard in 1987 dollars. This $4.30/$4.45 cost figure takes into account overhead costs, including a loader and loader operator, all excavation costs at the site (including drilling, blasting, overburden removal and equipment wear and tear), and all costs of compliance with all

relevant local, state and federal regulations. Johnson is slightly closer to destinations north of the Cannon Beach junction. Bayview is slightly closer to destinations south of the Cannon Beach junction.

Bayview has provided expert testimony concerning its $4.30/$4.45 cost figure for aggregate to be produced at the proposed quarry. Johnson has raised contingencies (including loading costs and environmental compliance costs) which it claims negate the Bayview cost estimate. However, Bayview's expert took these production contingencies into account when examining the cost of material to be produced at the Bayview Quarry and verified the cost estimate by three separate methods. Therefore, we accept the Bayview cost figure. Johnson raises the issue of a transportation cost advantage it might have for materials transported to the north of the Johnson Quarry. We find that this transportation cost is not relevant to the verified $4.30 /$4.45 production cost at the proposed quarry. The crucial inquiry is: given Johnson's $6.00 per cubic yard price, can Bayview justify its proposed cost of $4.30/$4.45 per cubic yard? We find the $4.30/$4.45 figure to be amply supported by Bayview's expert testimony. We also note that if transportation costs are relevant to this narrow Issue No. 2, Bayview enjoys a slight transportation cost advantage for material transported south of the Cannon Beach junction. We conclude that Bayview's projected average cost for aggregate at the proposed quarry is $4.30/$4.45 per yard. We further conclude that this figure is supported by expert testimony which we accept. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 3.

Do the Ordway and Darling Quarries have sufficient rock quantity and quality to support the proposed quarry?

We find the following facts in the record relevant to this issue:

The Darling Quarry (04-0038) is an existing pit located on 2.5 acres in an F-80 zone (see Exhibit A, attached) and contains approximately 100,000 cubic yards of material available for excavation. Rock extracted from the Darling Quarry received marginal test results on both the coarse and fine clay lumps and friable particles tests (T-112-C; T-112-F). Marginally acceptable results in these tests can be of extreme detriment to asphalt and concrete products. Aggregate production involving a rock source which has marginal results on these tests can increase costs through added processes and/or

loss and waste of time adjusting mixtures and designs. Material from the Darling Quarry was recently rejected by the Oregon Department of Transportation, Highway Division, because it did not meet specification. The Ordway Quarry is an existing pit located on approximately 3 acres in an AF-20 zone (see attached Exhibits A and D) and has an available quantity of material for extraction of approximately 160,000 cubic yards. Rock from the Ordway Quarry failed the fine sodium sulfate or magnesium sulfate test, failed both the coarse and fine clay lumps and friable particles tests and failed the sand equivalency test. The sodium sulfate or magnesium sulfate tests, the clay lumps and friable particles tests and the sand equivalency test are standard tests which aggregate must pass to be used in Oregon State Highway projects. These standards are widely used as an indication of aggregate's fitness for a variety of projects. The use proposed by the applicant is a long-term aggregate extraction source to help meet Clatsop County's aggregate demand over an extended period of time. The applicant's proposed use requires that the rock exceed testing standards to insure that production from the site will consistently meet necessary contract specifications. As set forth in the discussion under Issue No. 1 above, the average annual demand for aggregate material in Clatsop County is 150,000 cubic yards.

Because of marginal test results on rock material taken from the Darling Quarry, we find that the site does not present assurances that average production from the site will consistently meet necessary contract specifications. In addition, because the Darling site contains only approximately 100,000 cubic yards of material (less than a 1-year supply for Clatsop County demand figures), we find that it does not present a viable alternative for the long-term use (approximately 20 years) proposed by the applicant. Because the Ordway Quarry failed several rock quality tests, we find that the average production from the site will not consistently meet necessary contract specifications. In addition, because we find the Ordway Quarry contains only slightly more than a 1-year supply, it does not present a long-term source as has been proposed by the applicant. We also find that because the Ordway and Darling Quarries, taken together, present less than a 2-year supply of aggregate material, these two quarries, considered together, do not present a long-term source such as that proposed by the applicant. We conclude that the Darling and Ordway Quarries do not have sufficient rock quantity and do not have sufficient rock quality to support the proposed quarry. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 4.

Do the five alternative sites listed by the County, Cavenham Highway 101 (04-0028), Halvorsen Clay Borrow Pit (04-0032), Cavenham Pit Run (04-0036), McEwen Clay Borrow Pit (04-0048), and Stevens River Borrow Pit (04-0049), have sufficient quantity and quality of rock to support the proposed quarry?

We find the following facts in the record relevant to this issue:

Each of these five sites is described in attached Exhibits A and D.

Cavenham Highway 101 Borrow Pit (04-0028) has no commercial quality of rock. Cavenham Pit Run Borrow Pit (04-0036) has no commercial quality of rock. Halvorsen Clay Borrow Pit (04-0032) is an old clay borrow source that was used for fill to complete dike construction along the Necanicum River. Cavenham, the owner of the property, does not consider this site to be a potential rock quarry and has forfeited access rights to the road which serves the site. McEwen Clay Borrow Pit (04-0048) has no commercial quality of rock. Stevens River Rock Borrow Pit (04-0049) contains 45,000 cubic yards of material for extraction. The applicant has proposed a long-term aggregate extraction facility which would help meet Clatsop County's aggregate demand over an extended period of time. The central components of that long-term use are the availability of rock, approximately 100,000 cubic yards per year for a minimum of 20 years, and rock which meets test specifications to insure that average production from the site consistently meets necessary contract specifications.

We find that because the material previously excavated from the Halvorsen Clay Borrow Pit was used as fill to complete dike construction, commercial quality rock is not available at that site. We further find that this pit must be small in size, because it cannot be identified from aerial photos. We find that because no commercial quality of rock exists at the Cavenham Highway 101 Pit, the Halvorsen Clay Borrow Pit and the Cavenham Pit Run Borrow Pit, these sites cannot be used for the proposed use. We further find that because no commercial quality of rock exists at these sites, it is irrelevant how much quantity of rock is available at any of these sites. We find that because the proposed use requires both sufficient rock quantity and rock quality, the presence of quality rock alone, without the necessary quantity, or the presence of quantity of rock alone, without the necessary quality, is insufficient to support the proposed use. As discussed in

Issue No. 1 above (which discussion is incorporated herein by reference), the County-wide demand for rock in Clatsop County is approximately 150,000 cubic yards. We find that the Stevens River Rock Borrow Pit contains less than a 1/3-year supply of material. We find that, even if the quantity of rock available at the Stevens River Rock Borrow Pit is added to the quantity of rock available at the Darling and Ordway Quarries, less than a 2-year supply is available at these 3 sites. We do not mean to imply by adding the Darling and Ordway Quarries in our quantity calculations that we find Darling or Ordway rock to be of adequate quality. To the contrary, we find (as discussed in Issue No. 3 above) that Darling rock is of marginal quality and that Ordway rock is of insufficient quality. We include Ordway rock in our quantity calculation here only to illustrate our conclusion that all these sites, considered together, do not present sufficient quantity to support the proposed use. We conclude that these 5 sites, even considered in conjunction with the Ordway and Darling Quarries, do not present sufficient rock quantity to support the proposed quarry. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue Nos. 5 and 6.

What are the characteristics of the alternative sites that require an exception?

What are the impacts that would "typically" result from locating the proposed quarry at the exception sites, and are these impacts less severe than location of the Quarry at the Bayview site?

We find that the characteristics of the alternative sites are fully described in the geological assessment prepared by Paul D. See, dated July 10, 1987, the Bayview Transit Mix evaluation report, dated July, 1987, prepared by Don Lampi (as updated with supplement dated August, 1987), and the evaluation report of David Evans & Associates (as updated with supplement dated August, 1987). The characterics of the eight sites, as well as the Bayview site, discussed in the LUBA opinion are summarized in Exhibits D and E of these findings. The locations of these alternatives sites are set forth on Exhibit A. We find that these summaries accurately describe the characteristics of each of these eight sites and the Bayview site. We incorporate the characteristics of each of those sites contained in the summary, as well as the information contained in the three reports, by reference as though fully set forth herein. We decline to compare the typical impacts, including environmental, social, economic and energy consequences, of the

Bayview site with the five sites listed in our discussion of Issue No. 4 above, as these sites lack sufficient aggregate resources to support the proposed site. It would be an empty exercise for this Board to describe the characteristics and then weigh typical impacts, including environmental, social, economic and energy consequences, when, in fact, a supervening characteristic (namely lack of quality and quantity of rock) prevents them from being rationally considered as a site for the proposed use. Without adequate rock quality and quantity, a site has no economic value as an aggregate source, and any attempt to locate the proposed use at these sites would have fatal economic impacts. Location of the use at the Bayview site, given the minimal negative impacts which are described under Issues Nos. 7 and 8 below, causes an inherently less severe impact than locating the use at these sites where the use could not be successfully or economically operated. Given the lack of rock quantity and quality of the five sites mentioned in the LUBA remand opinion, Issues Nos. 5 and 6, concerning the characteristics of the sites and the comparative impact of using each of the sites instead of the Bayview site, have no relevancy. We conclude that because there is insufficient rock or no rock at each of these five sites, the characteristics of these sites (lack of rock quality and quantity) dictate typical impacts.

The Johnson QM site (040011) is in a Quarry and Mining zone that does not require an exception for continued operation. Accordingly, we conclude that Issues Nos. 5 and 6 do not apply to the Johnson QM Quarry.

The Darling and Ordway Quarries are existing non-conforming uses. As such, they do not require an exception for continued use. However, as both these quarries are located in forest zones (F-80 and AF-20), any expansion of these quarries to meet the large scale use proposed by the applicant would require an exception under Policy 17 of the Goal 4 County-wide Element of the Comprehensive Plan. Any such expansion of these quarries would fall under this standard. However, as discussed in Issue No. 3 above, we have concluded that a primary characteristic of both the Darling and Ordway Quarries is their lack of large quantities of rock. In addition, under Issue No. 3 above, we concluded that a primary characteristic of the Darling Quarry is its marginal rock quality, and a primary characteristic of the Ordway Quarry is its lack of quality rock. Accordingly, consistent with our analysis above, we decline to analyze the potential expansion of these quarries in terms of typical impacts (such as environmental, social, economic and energy) when a supervening characteristic present at these sites (namely, lack of quality and quantity of rock) prevents them

from being rationally considered as a site for the proposed use. Without adequate rock quantity and quality, an attempt to locate the proposed use at these sites would not be economically sound. Location of the use at the Bayview site, given the minimal negative impacts which are described in Issues Nos. 7 and 8 below, causes inherently less severe impacts than locating the use at these two sites wnere the use could not be successfully or economically operated.

With respect to the Rippet Quarry and the Johnson F-80 Quarry, we make the following findings of fact and conclusions consistent with our discussion under Issue No. 1, above: The existing 5-acre area of the Rippet Quarry is considered a nonconforming use in a F-80 zone. Under Policy 17 of the Clatsop County Comprehensive Plan, Goal 4, County-wide Element, expansion beyond this 5-acre nonconforming use area requires an exception. Extraction has occurred on approximately 1 acre of the 10.2 acre Johnson F-80 parcel. Any expansion on the site requires an exception to be taken pursuant to Policy 17 of Goal 4 of the County-wide Element of the Clatsop County Comprehensive Plan.

We reach these findings and conclusions as follows. With respect to the Johnson F-80 site, we find that extraction activity on the separate Johnson QM parcel has continued for a number of years. The Johnson QM Quarry has been operated and expanded in a southeasterly direction and in recent years has crossed over into the adjoining Johnson F-80 parcel. No land use approvals have been requested or obtained from the County for the operations on the Johnson F-80 parcel. Comprehensive land use controls were established in Clatsop County in 1980 and provided standards and limits on quarrying uses. Aerial photos in the record attached as Exhibit No. 2 to the July 1987 report of Mr. Lampi demonstrate that in 1980, at the time extensive land use controls were imposed on quarry operations, the Johnson extraction operation was still located within the Johnson QM parcel and had <u>not</u> entered onto the Johnson F-80 parcel. As is shown in the aerial photos, subsequent to 1980, the Johnson extraction operation crossed onto the Johnson F-80 parcel. At this time, it had no land use approval and was an illegal operation under the zoning ordinance. Therefore, we have concluded that the Johnson operation on the Johnson F-80 parcel is an existing use, but not a nonconforming use as it was unlawfully established. We further find and conclude that any expansion of this area requires an exception. With respect to the existing Rippet site, we find that extraction activity has continued on the site for a number of years. The Rippet Quarry has been operated and expanded in a northwesterly direction. Under State law, the operators of the Rippet Quarry are

required to maintain a reclamation plan. This reclamation plan includes the active area of the quarry and defines the extent and limit of the quarry. In 1974, Johnson filed a reclamation plan with DOGAMI which delineated the quarry area. This plan was updated in 1976. In 1980, the active area at Rippet Quarry under the 1976 reclamation plan was 5.8 acres. The County enacted comprehensive zoning in 1980, which regulated and proscribed limits for quarry operators. In 1984, Johnson filed a new reclamation plan which updated and increased the disturbance area. No application was made to Clatsop County to obtain zoning approval for the increased size of the Rippet Quarry. We find and conclude that at the time of the imposition of zoning controls in 1980, the 1976 reclamation plan delineated the Rippet Quarry and defined the nonconforming use portion of the quarry. Significant expansion beyond this defined quarry limit requires an exception to be taken. In addition, we note that Cavenham had expressed a desire that future expansion at Rippet Quarry occur on the backside of the ridge above the existing quarry. Any expansion into this area would be outside the nonconforming use area and would require an exception. Our discussion below is directed to any existing or propsed expansion at the Rippet Quarry beyond the nonconforming use boundary established in the 1976 reclamation plan.

Economic Characteristics and Impacts.

The Bayview, Rippet expansion and Johnson F-80 sites all contain rock which meets the minimum required quality specifications and are close to the Seaside-Warrenton market area. However, Bayview has certain economic characteristics which provide distinct advantages over the Rippet and Johnson F-80 sites. First, the Bayview site contains approximately 2.5 million cubic yards of available material. This is a sufficient amount to meet the projected County demand for a long period of time. The existing Rippet Quarry contains approximately 250,000 cubic yards of available material, with some additional rock available if expansion is permitted. The Johnson F-80 site contains approximately 300,000 cubic yards of material. Even if the Johnson F-80 and the nonconforming Rippet Quarries are considered together, the available material is much smaller than the Bayview Quarry. In addition, average cost of material produced at the Bayview Quarry is projected to be $4.30/$4.45 per cubic yard. Whereas, the price of material produced by the Johnson operation (from the Rippet Quarry and the Johnson F-80 site) averages $6.00 per cubic yard. The Bayview site has a large economic advantage over the other two sites. Further, the existing Rippet Quarry and the Johnson F-80 Quarry essentially provide Johnson with a sole source monopoly in the market. As described in our discussion under Issue

No. 1 above, certain price and supply policies pursued by the Johnson operation create monopoly-like characteristics in the market. The County roadmaster is on record favoring the Bayview site to increase competition in the market area and indicated he was unable to obtain rock from Johnson because of other Johnson commitments. The Bayview site would have a positive economic impact by creating an alternative site for aggregate materials in the market area. This alternative site would have the additional benefit of decreasing the need for rock to be imported into Clatsop County. The Rippet Quarry has a possible overburden problem and a possible high-face reclamation problem. These are potential economic impacts that are not faced by the Bayview site. Considering all these economic factors together, we conclude that the long-term economic consequences resulting from the use at the Bayview site are not significantly more adverse than would typically result from the same proposal being located at the Rippet Quarry or the Johnson F-80 site.

Environmental Characteristics and Impacts.

All three of these sites have room for sediment ponds, are located in elk habitat and have a stream nearby or on the premises. The projected 100-year flood event for the Bayview extraction site can be properly contained in a settlement pond 1.5 acres by 2.8 feet deep. The preliminary Bayview site layout reserves approximately 2 to 3 acres for sedimentation ponds which allows sufficient flexibility to meet siting and construction contingencies. The Bayview extraction site has no timber approaching marketable size. Whereas, the Rippet and Johnson F-80 sites contain larger trees. We find that Johnson geologists claim that landslides are a potential problem at the Bayview site. They point to a fracture on the southwest side of the Bayview site as evidence of landslide potential. However, we find that Geologist See attributes the fracture to man-caused problems during road development. See concludes that the underlying geologist is stable. Of particular importance to this analysis is the fact that tree stumps in the original slope protrude through the man-deposited material without distortion. We find this fact, together with the See analysis of the soil types present at the Bayview site, persuade us that the Bayview geology is stable. In addition, we find it suspect that Geologist Redfern refers to "minor slumping" at the Rippet Quarry and Geologist Schlicker dismisses landslides at the Rippet Quarry when 1984 aerial photos clearly show a large landslide at Rippet Quarry. For these reasons, we place greater credibility in Mr. See's analysis and conclude that the geology at the Bayview site is stable and landslides are not a problem. The geology is also stable at the Johnson F-80

site, but the Rippet Quarry has a history of landslide problems. The Bayview Quarry is not visible from surrounding residences or from U.S. Highway 101 or 26. To the contrary, the Rippet Quarry is clearly visible from both Highways 101 and 26. The Johnson F-80 Quarry is visible from U.S. Highway 101. As described under Issue No. 7 below, the projected noise levels from the Bayview site meet applicable DEQ levels. As the opponents did not provide a sound evaluation of their own operation, it is unknown whether or not operations at the Rippet Quarry and the Johnson F-80 Quarry comply with DEQ standards. Areas which contain vegetation which may be found in wetlands is located near the Bayview site along adjacent Square Creek. No areas described as "wetland" have been identified at the Rippet or Johnson F-80 Quarries. A specific condition, which is made a part of these findings, will protect wetland values at the Bayview site. Geologist Redfern raises questions about stream erosion due to meandering at the Bayview site. However, we find, as pointed out by Geologist See, that Geologist Redfern's analysis is a "unique departure from conventional understanding of stream mechanics." We find that the fact that a river meanders is indicative of long-term stability. We further find that a variety of measures, including riprap and revegetation, are available to control any potential erosion. Finally, the Bayview extraction area is located approximately 2,800 feet from the nearest residence. The Rippet Quarry has two houses within 300 feet, and the Johnson Quarry has seven houses within 1,000 feet. After weighing these characteristics and impacts, we find that aggregate operations at the Bayview site have advantages related to timber, stable geology and visibility. A potential disadvantage at the Bayview site (areas that may contain vegetation which may be found in wetlands) has been addressed and mitigated by a condition which is part of this approval. On the whole, we conclude that the long-term environmental consequences resulting from aggregate extraction use at the proposed site, with measures designed to reduce adverse impacts, are not significantly more adverse than would typically result from the same proposal being located in either the Rippet Quarry or the Johnson F-80 site.

Social Characteristics and Impacts.

We find that the Bayview extraction site is located 2,800 feet from the nearest residence. The Rippet Quarry has two homes within 300 feet, and the Johnson F-80 Quarry has seven homes within 1,000 feet. There is a social advantage in having the extraction operation located farther from existing homes in that noise is reduced. As described under Issue No. 7 below, the Bayview site meets DEQ noise levels. No information is available concerning the noise levels at the

Johnson F-80 and Rippet Quarries. We find that the Bayview site enjoys reduced social impacts in that it cannot be seen from the adjoining highways or residences. Whereas the Rippet and Johnson F-80 Quarries are clearly visible from adjoining homes and highways. We find that land use compliance at the Rippet Quarry and the Johnson F-80 Quarry is unclear. The Bayview Quarry enjoys a social advantage as it has applied for a land use permit before extracting aggregate in a forest zone. We also find that the Rippet Quarry has potential problems with reclamation which may make it difficult to reclaim the slope to reduce its visibility. Bayview has reduced social impacts in that its access to Highway 101 will be along a newly-aligned portion of that road just south of the existing Highway 26 junction. To the contrary, truck traffic hauling unprocessed aggregate from the Rippet Quarry must cross U.S. Highway 101 on a curve to take the material for processing to the Johnson QM Quarry site. Access from the Rippet Quarry and to the Johnson F-80 site is on a two-lane portion of U.S. Highway 101 near a curve. Blasting noise and vibration may affect nearby residences. The Bayview site may have a slight social advantage in that blasting may not be needed at the site. Whereas, blasting is necessary at the Rippet and Johnson Quarries. We also find that Bayview has presented an extraction plan which will maintain a lip of rock between the Bayview extraction area and nearby residences to the north and east. This reduces social impacts for the Bayview Quarry, as opposed to the Rippet Quarry and Johnson F-80 site whose extraction activities directly face residential uses. After weighing the relative advantages and disadvantages of the sites, we conclude that the long-term social consequences resulting from aggregate extraction at the Bayview site (with measures designed to reduce adverse setbacks) are not significantly more adverse than what would typically result in the same proposal being located at either the Rippet or Johnson F-80 Quarry.

Energy Characteristics and Impacts.

All three areas are a short distance from the Cannon Beach junction and are located close to the market area. Mechanical extraction, using similar equipment, will be required at all three sites. The Rippet Quarry has a potential disadvantage due to the overburden problems at the site which may require additional energy during the handling of material. Weighing these characteristics, we conclude that the energy consequences present at each of the three sites are similar. Accordingly, we conclude that the long-term energy consequences resulting from aggregate extraction at the Bayview site are not significantly more adverse than would typically result from the same proposal being located at the Rippet or Johnson F-80 site.

Issue No. 7.

Is the proposed quarry "compatible" with the adjacent residential uses?

We find the following facts in the record relevant to this issue:

Several houses are located within approximately 3,000 feet of the proposed extraction area. The closest residence belongs to Jensen and is located approximately 2,800 feet from the extraction area and approximately 800 feet from the proposed stockpile. The Jensen residence is surrounded by trees as are the other residences in the vicinity. Neither the extraction area nor the stockpile area is visible from any of the residences. "Quiet Area," as used by DEQ, is land designated by the Environmental Quality Commission where quiet is of an extraordinary significance to serve a public need, such as a wilderness area, a national park, or a state park. The area surrounding the Jensen home has not been designated quiet area by the Environmental Quality Commission. The existing rock quarry at the Bayview site has been frequently used intermittently during the last 20 years, with the last use being in 1986. The applicable DEQ noise standards for the general area near the Jensen residence are as follows: L(1) 75 dBA, L(10) 60 dBA, and L(50) 55 dBA. The crusher or process plant proposed by applicant is projected to generate the following levels of noise as measured at the Jensen residence: L(1) 40 dBA, L(10) 36 dBA, and L(50) 32 dBA. The applicable noise levels generated by the asphalt batch plant which may accompany the proposed operation as measured at the Jensen residences projected to be: L(1) 37 dBA, L(10) 33 dBA, and L(50) 29 dBA. Given the applicant's extraction plan, the aggregate extraction activity proposed by applicant is projected to generate the following levels of noise as measured at the Jensen residence: L(1) 44 dBA, L(10) 44 dBA, and L(50) 43 dba. The opponents' sound expert projected that higher levels of noise from the extraction operation would be received at the Jensen residence. Mr. Duble, the opponents' sound expert, did not take into consideration the extraction plan presented by the applicant in which a lip in the form of an earth berm will be maintained between the drilling and extracting operation and the Jensen residence. In addition, the mouth of the excavation area at the Bayview site will be oriented away from the residences to the southeast. Further, we find that Mr. Duble assumed that two bulldozers and two front-end loaders would be working at the extraction area when the actual proposed operation at the Bayview site will include only one bulldozer. The design feature of the extraction plan will significantly reduce

projected sound levels to be received at the Jensen residence. The opponents' sound expert also projected a sound level of 98 dba from hypothetical rock drilling equipment which would be located at the extraction site. The Bayview sound expert, Mr. Standlee, measured the actual drilling equipment proposed to be used at the site. This equipment generates only 90 dBA. In addition, the mouth of the excavation area at the Bayview site will be oriented away from the residences to the southeast. Further, we find that Mr. Duble assumed that two bulldozers and two front-end loaders would be working at the extraction area when the actual proposed operation at the Bayview site will include only one bulldozer. For these reasons, we adopt the noise figures provided by Mr. Standlee. Thus, we find the sum of the projected noise levels at the Jensen residence of all activity at the Bayview site to be L(1) 46, L(10) 45, and L(50) 44, well within the DEQ standards. Bayview's trucks are regularly maintained (including muffler inspection) at the Bayview shop in Gearhart and meet applicable licensing requirements. Bayview trucks will not use Jake brakes on the roads near the Jensen residence and will maintain reduced speeds to minimize vibration. Roads to the quarry will be maintained in a dust-free fashion. The actual crusher, which is considered for use at the Bayview site, has current DEQ operating permits. Windrose data prepared by the Office of the State Climatologist indicates that prevailing winds will carry any dust generated at the Bayview site away from nearby residences. The Jensen residence and nearby residences are within approximately 1,500 feet of U.S. Highway 101 and are approximately 1,000 feet from a bulk oil facility. Large trucks frequently travel U.S. Highway 101, and large trucks call at the bulk oil facility. The extraction plan proposed by Bayview will minimize blasting impacts by maintaining a lip on the existing hillside between the blasting operation and any residence to the east. Blasting may not be necessary at the proposed quarry, and, in any event, blasting is an infrequent activity at the quarry. Extraction operations at the quarry will be confined between the hours of 7:00 a.m. and 10:00 p.m.

We find that impacts on the Jensen residence will be very similar to the impacts on the other residences in the area. Because the Jensen residence is the closest to the proposed extraction site, the impacts are analyzed with reference to the Jensen's residence as it will be the one most likely to receive adverse effects, if any. We note that compatibility as referred to in ORS 197.732(b), and OAR 660-04-020(d) is not intended as an absolute term meaning no interference or adverse impacts of any type may affect adjacent uses. Opponents' sound expert, Mr. Duble, concludes that the potential noise generated by the crusher/processing plant and a potential asphalt batch plant will not exceed applicable DEQ standards at the site.

In addition, Mr. Duble concludes that the summation of the projected L(1) sound levels for the extraction activity at the proposed site will not exceed the applicable sound levels. Bayview's sound expert, Mr. Standlee, agrees with these conclusions. Mr. Duble, however, indicated that the projected L(10) and L(50) noise levels generated by the extraction activity would exceed the applicable DEQ standard. Because we find that Mr. Duble did not consider the noise-inhibiting design features contained in Bayview's extraction plan, the orientation of the operation away from residences, the appropriate extraction equipment or the appropriate noise level for extraction equipment, we find that Mr. Duble's conclusions concerning the L(10) and L(50) projected noise levels are incorrect. Data submitted by Bayview's sound expert indicates that, considering all the factors that would attenuate sound, noise generated by the applicant's extraction operation is well below the applicable DEQ standard. We also conclude from examining the data of Messrs. Duble and Standlee, that even if the applicable DEQ noise standard were deemed to be 10 dBA over ambient levels (which we specifically conclude is not the case), all facets of the proposed use would meet that standard. Because we find that roads will be maintained in a dust-free fashion, the Bayview crusher will meet all DEQ dust standards, and prevailing winds will carry dust away from the Jensen residence, we find that no significant dust impact will occur at the Jensen residence as a result of the applicant's operations. We find that vibration might occur at the Jensen residence because of two sources: blasting impulses and truck traffic. Because we find that Jensen is approximately 1,500 feet from the truck traffic on U.S. Highway 101 and 1,000 feet from truck traffic at a commercial oil facility and because Bayview will reduce speed of its trucks to reduce vibration, we find applicant's truck traffic will result in no substantial increase in truck vibration. Because we find that blasting is not a frequent occurence, because the applicant's extraction plan will minimize the effect of blasting and because Jensen would receive only slight vibration from any blasting impulse, we find that any impact from blasting will be minimal at the Jensen residence. We further find that extraction operation at the Bayview site will be limited from 7:00 a.m. to 10:00 p.m. This will serve to make the operation more compatible with the adjacent residential uses. We find that because the site is not visible from any of the residences, because noise will be within acceptable limits, because the gravel quarry on the site is a long-term existing use and because aggregate activity will be located more than 600 feet away, property values of the nearby residences will not suffer as a result of locating the proposed use at the Bayview site. Because we find that noise will be within acceptable limits, dust will meet DEQ standards and be

taken away by prevailing winds, vibrations will be similar to existing truck traffic and blasting vibration will be slight and infrequent, we conclude the proposed use is compatible with adjacent residential uses. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 8.

What are the economic, social, environmental and energy consequences to Goal 5 resources of allowing processing of crushed rock at the proposed site?

We find the following facts on the record relevant to this issue:

Bayview has proposed rock extraction and stockpiling operations that are 30 acres in total. Twenty acres of this area will be devoted to rock extraction, and approximately 10 acres will be devoted to a stockpile operation. The proposed use is designed to produce quality rock at a rate of approximately 100,000 cubic yards per year for a 20-year period. The rock from the pit will be produced at a cost below the average price from presently existing sources, including Johnson and imported rock from outside the County. An existing quarry is present at the proposed extraction site. The quarry has been used on numerous occasions in the past, and approximately 100,000 cubic yards of aggregate material has been removed from the site. No merchantable timber exists on the extraction site or on approximately 3 acres of the stockpile site. Seven acres of the stockpile site contains trees that are approximately 30 feet in height. The stockpile area and the extraction area are distinct areas and are separated by forest uses which will be maintained. The two areas are completely surrounded by forest land. Areas described as "wetland" have been briefly discussed by the opponents during this remand proceeding. We find, as described in the site analysis of the area by Mr. Lampi, that vegetation which might be found in wetland is primarily contiguous with Square Creek. One pocket containing vegetation which might be found in wetlands is located near the extraction area. We find that no significant wetlands, as indicated on Department of the Interior maps or in Clatsop County Goal 5 or Goal 17 inventories, are located at the Bayview site. We find that the extent of area which contains vegetation which might be found in wetlands is delineated on the map as attached to Mr. Lampi's August 25, 1987 report, and we adopt this description of the area. We note that our own staff has reported that

Mr. Redfern's wetland contention is without merit. The Bayview Quarry site is located in major big game habitat. No barriers will be constructed during the operation of the quarry which would affect big game migration. Square Creek, a perennial stream, runs adjacent to the extraction area. It is considered fish habitat as it has a summer flow of .5 cubic foot per second. Up to nine salmon have been seen in the creek during winter months. Salmonoid fish fry have been released into Square Creek by STEP volunteers. Square Creek is adequate fish habitat but not excellent or ideal habitat. Bayview has provided a sediment control plan which is designed to handle a 100-year flood event. In January of 1986, the Oregon Department of Fish and Wildlife suggested conditions for a plan to reduce impacts on Square Creek. After reviewing the Bayview sediment control plan, an Oregon Department of Fish and Wildlife biologist described the plan as a good plan. Other facts concerning the Bayview site contained in Parts I through IV of these findings are incorporated herein by reference. Identified resources at the Bayview site are elk, anadromous fish, wetlands, trees and aggregate.

Economic Factors.

A. Trees. Loss of overburden due to prior operations at the existing aggregate quarry has prevented the growth of trees over a large portion of the extraction site. The remainder of the extraction area was recently clear-cut and now supports very young trees. There will be no economic loss of trees approaching market value on the extraction area. The stockpile area contains 7 acres of trees approaching marketable size. In the short term, aggregate operations on the site will cause the loss of these trees. Cumulative impact of tree loss should be minimized by development of this quarry as it will present a long-term quarry site and may alleviate the need for development of other aggregate sites in forest lands. In the short term, forest economic uses of the 30-acre area will be replaced by mining uses. In the long term, the reclamation plan for the quarry area will insure that the majority of the area is returned to forestry uses.

B. Elk and Fish. Hunting for elk and the provision of household meat produces some economic value from this habitat parcel. The applicant intends to construct no barriers on the site, and development of the quarry does not prevent elk from coexisting on this site. A small temporary loss of habitat does not necessarily entail a loss of elk. Elk migrate freely and can take advantage of the surrounding forest area. As with timber, development of this quarry may result in less cumulative loss of elk habitat, because the large capacity of

this quarry may limit the need for other smaller pits on forest land. Adjacent Square Creek provides habitat for up to nine salmon and provides an area for STEP volunteers to release salmonoid fry. Square Creek flows between the extraction and stockpile areas. It has an August flow of .5 cubic feet per second ("CFS"). It passes under the access road via a permanent culvert. These are not uses of the area which provide specific economic benefits. However, enhancement efforts on small streams may help restore salmon runs which would provide economic benefit. The applicant will need variable amounts of water, up to 3,000 gallons of water per day for dust control, and possibly up to 2,000 gallons per day for other uses. Possible sources are Square Creek, on-site sump collection and hauling water to the site. Because of low summer flows in Square Creek and the impact of any further activities on fish habitat, it may not be possible to take this water from Square Creek. A condition of approval is that the State Water Resources Department establish a minimum stream flow for Square Creek, and removal in excess thereof is prohibited. Applicant currently owns a 4,000-gallon water truck and intends to place a 10,000-gallon tank at the site. If the water must be hauled to the site, the cost is approximately 6.3 cents a cubic yard of rock product, a minimal effect on overall costs. Cut-off ditches, berms, erosion-control mechanisms and sediment-trapping ponds at both the extraction area and the stockpile site will be constructed or placed to handle a 100-year storm event. The ponds will be draped with filter fabric to insure sediment is trapped. The applicant's sediment control plans are designed to insure that any economic gains associated with fish can coexist at the same time if rock is extracted at this site.

C. Wetlands. Areas near the proposed extraction site that contain vegetation which might be found in wetlands are not inventoried in the County-wide Goal 5 Element. These areas also do not appear on the U.S. Department of the Interior National Wetland Inventory maps used for establishing significant wetlands in the Clatsop County Comprehensive Plan. No part of the Bayview site contains wetlands identified in the Comprehensive Plan. Wetlands can have an economic value as furbearing animal and wetland bird habitats, but there is no evidence of furbearing animals or wetland birds at this site. Wetlands can also have marginal economical benefits as flood buffers. However, the areas near the extraction area that contain vegetation which might be found in wetlands are too small to be needed as flood protection. As with elk and fish, the conditions imposed by Clatsop County provide the necessary steps to insure that wetland habitat will be protected to preserve any economic value that may be assigned to it.

D. Aggregate. Aggregate is a necessary commodity for the economy of Clatsop County. This particular site has enormous economic value because of the quality of rock and quantity of rock that are present. As recognized in the Clatsop County Comprehensive Plan, rock sources are scarce in Clatsop County and should be developed where feasible. Use of this site for aggregate extraction would provide high-quality rock for a number of years at a favorable price in Clatsop County markets. Development of this quarry will increase competition in the market area and may lessen the need for imported aggregate products in Clatsop County. Development of the site may also create four jobs. As noted in Parts I-V of these findings, other aggregate pits in the area have limited quantity and quality of material available for extraction. To not use this site would have significant negative economic impacts, including continued higher aggregate prices and uncertain future supplies.

Social Impacts.

A. Trees. An adequate timber base is important to preserve County jobs and to provide areas for recreation. Because the Bayview extraction area has recently been clear-cut and the area supports an existing aggregate pit, this area is not an ideal choice for timber production or forest recreation. Loss of seven acres of timber on the stockpile site will reduce the County timber base. Clatsop County has approximately 474,000 acres of timberland. The reduction in timber base caused by Bayview is a miniscule fraction of the amount of timber available in Clatsop County, and development of this site may prevent a larger cumulative loss of timber due to reduced need for smaller aggregate pits in other forest areas. In addition, nearly all the alternative sites would entail loss of productive forest while aggregate is being extracted. The reclamation plan for the Bayview site insures that the area will be returned to forest uses after extraction has stopped.

B. Elk and Fish. Although the land is private, public access has not been generally limited by the landowner. Access to the extraction and stockpile areas might be restricted if operations are ongoing. This could, in turn, limit elk hunting. However, as stated above, although use of this area for an extraction site may affect habitat, such use does not necessarily cause a decrease in the number of elk. Indiscriminate operation on this site could cause problems to fish habitat and the success of the STEP program. However, the sediment control plan proposed by the applicant mitigates any potential negative social effects in this regard.

C. Wetlands. Social and recreational values are sometimes assigned to wetlands if they are large enough to support animal populations. The small size of the area associated with the site on which vegetation might be found in wetlands would limit any such recreational value. Further, it is unlikely that the areas which might contain vegetation found in wetlands would provide large social value, as they were discovered only at the very end of this remand proceeding. In addition, the areas are small and directly adjacent to an existing forest gravel pit which limits their recreational value.

D. Aggregate. One of the principal reasons for developing this quarry is to eliminate reliance on the sole source of aggregate in the County which provides relatively high-priced materials to consumers. Unlike existing commercially operated sites considered in this proceeding, this proposed site is well away from people, being approximately 2,800 feet from the nearest residence. The extraction plan provided by Bayview indicates that use of this area for rock be handled in such a manner to minimize any effects, including dust and noise, on nearby residents. The evidence produced in this proceeding indicates that other rock sources in the County have limited life spans, and, eventually, other new sites must be developed for aggregate use. Finally, it is possible that four jobs would be created in the use of this pit for its aggregate resource.

Environmental Impacts.

A. Trees. As discussed in the economic portion of this analysis above, trees provide potential habitat for elk on the site. However, as the applicant will construct no barriers and reclaim the area for forestry uses, this habitat value will be reestablished through reclamation in the future. Aggregate uses on the site will create more dust and noise than tree production on the site, but the applicant has proposed measures to control both dust and noise. As discussed above, the site will remove approximately 30 acres from the timber base in the County. However, the site has been designed to allow trees to grow between the extraction area and the separate stockpiling area. Applicant's extraction plan is designed to minimize any adverse environmental effects on forest resources, and development of this site may limit the need for a larger number of smaller pits on forest lands. Forest uses might provide shade for Square Creek, but the proposed plan of operation at this site has preserved a 50-foot setback which will also provide shade for Square Creek. Use of the area for aggregate extraction will prevent periodic herbicide spraying which would accompany forest uses. As most of the site has been clear-cut, no major

habitat changes or loss of trees will accompany aggregate uses. There will be a premature harvest of trees on seven acres of the stockpile site, but no market-size trees will be lost at the extraction site.

B. Elk and Fish. The existing rock pit on the site is still used by elk. These habitat values will gradually change as the proposed aggregate use expands on the site. However, no barriers will be constructed to prevent elk from using the remainder of the site, and the area will be returned to forest uses and elk habitat after it has been reclaimed. Aggregate use on the site will entail some dust and noise emissions. However, the applicant will abide by the appropriate DEQ standards and will keep the road in a dust-free condition. In 20 years, the surrounding forest areas will support larger trees, and the small vegetation on the reclaimed portions of the proposed quarry will present habitat variety. Nine adult salmon have been counted in the lower one-half mile of Square Creek, and approximately 25,000 Coho and 10,000 Cutthroat Fry were released into Square Creek in 1987 as part of the STEP program. The creek provides an adequate, but not excellent, habitat. Low summer flows are a limiting factor, and maintaining minimum stream flows is important to sustain fish habitat. We have imposed a condition which will prohibit the applicant from removing water from Square Creek in excess of the proscribed minimum stream flow developed by the Water Resources Department. Indiscriminate operation at the site could cause sediment problems and damage to fish values in the nearby stream. However, the applicant has proposed a sediment containment program which will prevent any adverse impacts on the stream. This program has been described by the representative of the Oregon Fish and Wildlife Department as a good plan. Environmental values associated with fish will be able to coexist with the operation of the aggregate site.

C. Wetlands. The area which contains vegetation which might be found in wetlands primarily consists of a narrow strip along Square creek and one pocket near the extraction area. We find that the area containing vegetation which might be found in wetlands consists of riparian strips and small isolated pockets. These areas are shown on the map attached to Mr. Lampi's August 25, 1987 report, and we adopt that map as delineating the extent of any area at the Bayview site containing vegetation which might be found in wetlands. In the event that any of these areas would be determined to be wetlands, we have imposed a condition that will protect them by imposing a condition designated to maintain minimum setbacks from areas determined to be wetlands. Indiscriminate operation of the proposed use could cause damage to these areas. However,

However, the applicant has proposed acceptable setbacks from Square creek and has also proposed to keep all activities out of wetland areas.

D. Aggregate. As is recognized by the comprehensive plan, the geology of the Oregon coast limits good aggregate sites in Clatsop County. The Bayview site is one of the few sites with high quality and high quantity of rock. The site is already disturbed and has been used for a number of years as a rock pit for forest uses.

Energy Impacts.

A. Trees. Little energy use accompanies the growing of trees, with the exception of occasional spraying, pruning and harvesting activities. Rock extraction and processing would require more energy consumption.

B. Elk and Fish. Elk and fish resource uses entail no energy use. Extraction and processing of rock material requires more energy than these uses.

C. Wetlands. Wetlands uses require no energy use. Extraction processing of rock requires more energy than these uses.

D. Aggregate. Energy expenditure necessarily accompanies aggregate extraction, but aggregate provides a correspondingly greater economic return. The proposed site is close to the market area which reduces fuel consumption and provides a superior choice in terms of energy consumption from sites that are farther away from the market area.

Considering the economic, social, environmental and energy impacts and consequences of locating the proposed use at the Bayview site, we make the following findings. Aggregate is a scarce resource in Clatsop County. It requires an energy consumptive extraction process and necessarily creates some dust and noise. However, we find that the limited sites available for aggregate extraction in Clatsop County make the economic value of a good quality, long-term site, such as the Bayview site, extremely high. We find that 30 acres of timbered land, nearby fish and wildlife habitats, and areas which contain vegetation which might be found in wetlands will be affected by allowing the proposed aggregate use. However, we find the effects on the forest resources will be temporary, and the reclamation plan will return the area to forest uses in the long-term. Similarly, any effects on the elk habitat will be reduced, because no steps will be taken to prevent movement

of the elk across the site. As with forest uses, once the area is reclaimed, it will return to its prior elk habitat value. The applicant has proposed an adequate sediment control plan which will allow fish uses to continue and coexist with the aggregate extraction uses. Similarly, the applicant has given necessary assurances that wetlands will be protected by adequate setbacks. We determine, on balance, and giving consideration of the steps taken by Bayview to reduce any adverse impacts, that the economic, social, environmental and energy analysis mitigates in favor of allowing the use at this site, with conditions. As discussed below, we have developed a program to achieve Goal 5 purposes.

Issue No. 9.

Given the economic, social, environmental and energy consequences to Goal 5 resources, the County must "develop a program to achieve the Goal."

Our initial decision in this matter was accompanied by 14 conditions which were designed to limit the adverse impacts of the proposed quarry operation. We specifically adopt those 14 conditions by reference herein as part of the program to achieve Goal 5 purposes. These conditions include compliance with DEQ noise standards. We note that this condition will help to mitigate any impacts on Goal 5 wildlife resources. In addition, we note that this condition will help insure compatibility of the operation with adjacent forest and residential uses. These conditions also contain a requirement that the operator obtain all State and federal permits. This would include the appropriate DOGAMI permits, including a reclamation plan. This condition will help to preserve Goal 5 values by returning the area to forest and habitat uses once the aggregate extraction operation has terminated. These conditions also contain the requirement that sedimentation ponds be installed so that water turbidity levels in Square Creek are not increased. Applicant has agreed to construct ponds in such a manner that they will handle a 100-year flood event without adverse effect on Square Creek. This condition is designed to protect Goal 5 fishery resources in the adjacent creek. We find that after consideration of the applicant's proposed settlement control plan, the Oregon Department of Fish and Wildlife indicated the applicant's plan for sediment control was a good plan. Conditions also require that roads shall be maintained in a dust-free condition during intensive operations. This condition is designed to reduce dust impacts on adjacent wildlife and fishery uses and minimize any impact on forest resources. Conditions also require observance of riparian setbacks. This condition insures that riparian values

(fish and wetland) are protected. Finally, the original conditions include the requirement that the applicant provide adequate boundary line delineation of the quarry and stockpile sites. This condition allows the applicant flexibility in locating sediment ponds to maximize the effectiveness of the sedimentation pond design. We hereby add the following conditions which are designed to implement and achieve Goal 5 purposes:

First: No barriers will be constructed to prevent wildlife migration, unless required by adjacent residential uses. (This condition will protect Goal 5 wildlife values by allowing continued migration and access by elk to the site.)

Second: Extraction operations on the site will be limited to the hours of 7:00 a.m. through 10:00 p.m. (This condition will help reduce noise impacts on adjacent Goal 5 wildlife values, as well as increase compatibility with adjacent residential uses.)

Third: No extraction activities will occur during the months of December and January. (This condition will eliminate sediment impacts during rainy months and preserve Goal 5 fish values. In addition, this condition will reduce noise and dust impacts upon residences located to the northeast in the event that winds would come from the southwest during this period of time.)

Fourth: The toe of any development will be located according to regulatory approval to protect wetlands. (In conjunction with the setback requirement of the original 14 conditions, this condition is to preserve and protect Goal 5 wetland values.)

Fifth: Rock drilling equipment no louder than 90 dBA [L(50)] will be used at the extraction site. This condition will insure that quieter equipment will be used and thereby eliminate noise impacts on Goal 5 wildlife resources and increase compatibility with nearby residential uses.

Sixth: Minimum stream flow for Square Creek needs to be established by the Oregon Water Resources Department. Water in excess of the prescribed minimum stream flow developed by the Water Resources Department shall not be removed from Square Creek. (This condition will preserve water during low flow periods for fishery purposes.)

Seventh: Extraction shall be in accordance with the staged extraction plan as submitted by applicant as prepared by David Evans & Associates, Inc. on August 26, 1987. (This condition will result in the mouth of the quarry being oriented away from residences and will result in a lip of rock being maintained between the resources and the quarry. This will insure sound levels are within DEQ standards.)

We conclude that these conditions, together with the conditions imposed and adopted by us in the prior proceeding and together with the Bayview excavation plan and sedimentation control plan, constitute a program designed to achieve Goal 5 purposes.

PART IV. ALTERNATIVE EXCEPTION ANALYSIS

As set forth in Part I of these findings, we have concluded that the only issues open for discussion in this remand proceeding are the ones we have discussed in Part III above. However, without prejudice to our conclusion, in the event that all exception standards would be deemed to apply to this limited remand proceeding, we make the following analysis of the statutory and regulatory factors necessary to take an exception. We specifically note that our conclusion in Part I of these findings limiting the scope of this hearing proceeding is the correct analysis of the scope of the hearing. Nonetheless, to avoid creating the grounds for subsequent appeal on this matter, we make the following analysis.

We find that the 14 alternative sites which have been examined in these proceedings, and are discussed as part of these findings, are divided into three fundamental areas: (1) uses located in Quarry and Mining Zones; (2) nonconforming uses; and (3) uses located in exception areas. Depending on how each site is classified, the primary standard which is applicable differs. The two QM Zones, Johnson QM and Seaside Reservoir QM, do not require an exception to receive a Quarry and Mining use. Accordingly, these sites are analyzed under the "reasonably accommodate" standard as found in ORS 197.732(1)(c)(B) and OAR 660-04-02(1)(b). Nonconforming uses are uses that lawfully existed at the time that the Clatsop County Land and Water Development Use Ordinance became applicable to the development, but that would otherwise not be lawful in the zone in which they are located. Aggregate extraction at several of the alternative sites occurred before the institution of the Clatsop County zoning ordinance and are classified, for the purposes of these findings, as nonconforming uses. These include the existing Rippet Quarry, the Ordway Quarry, the Darling Quarry, the Forked Horn Quarry, the

McEwen Clay Borrow Pit and the Bear Cat Quarry. Each of these sites has an existing DOGAMI permit and has a history of recent activity. As we have previously noted with respect to the Rippet Quarry and the Johnson F-80 site, any significant expansion of these sites beyond their present size, or beyond the parameters of their DOGAMI reclamation plans, will require an exception. The nonconforming use portions of these quarries, because no exception is needed to continue operation there, must be analyzed under the "reasonably accommodate" standard found in ORS 197.732(1)(c)(B) and OAR 660-04-02(1)(b). The remaining sites are areas for which an exception is necessary to conduct any further aggregate extraction operations. These sites include the Rippet Quarry (expansion), Johnson F-80, Silver Point, Stevens River Rock Borrow Pit, Cavenham Pit Run, Cavenham Highway 101 Borrow Pit and Halverson Clay Borrow Pit. The Rippet expansion and Johnson F-80 sites have no County permits. The Silver Point site has no DOGAMI permit. The Stevens River, Cavenham Pit Run, Cavenham Highway 101, and Halverson sites have been closed by DOGAMI and have no DOGAMI permit. Under Issue No. 1 above, we have previously explained our rationale for analysis of the Rippet expansion and the Johnson F-80 sites. Each of the other sites in this classification is an existing pit that has been used in the past. However, at this point, none of the pits have DOGAMI authorizations. Any attempt to use these previously-existing sites necessarily entails a new start-up and, therefore, a significant expansion of allowable activities at the site. Accordingly, under Policy 17 of the County Comprehensive Plan, Goal 4, County-wide Element, an exception is needed to extract rock at these sites. Accordingly, these sites must be analyzed under the "significantly more adverse" standard found in ORS 197.732(1)(c)(C) and OAR 660-04-020(1)(c). We find that the Ordway Quarry contains approximately 160,000 cubic yards of aggregate available for extraction. This represents approximately a one-year supply for the demand we have found in the market area. In addition, we note that it would make no sense to expand the Ordway Quarry, because the rock found there does not meet specifications. The Darling Quarry contains approximately 100,000 cubic yards of rock which is significantly less than a one-year supply for the demand in the market area. Given this limited quantity and the fact that the Darling material is of marginal quality, it makes no sense to consider this site for expansion for the proposed use. The Forked Horn Quarry contains approximately 100,000 cubic yards of material available for aggregate extraction. Again, this represents less than a one-year's supply, given the market area demand. Accordingly, it makes no sense to consider this quarry for expansion. The McEwen Clay Borrow Pit is a clay borrow source which is extremely small in size (less than one acre) and has

no commercial quality of rock. It is not reasonable to consider this pit for expansion when adequate quality of rock does not exist. Finally, the Bear Cat Pit contains approximately 148,000 cubic yards available for aggregate extraction. This is approximately a one-year supply, given the demand in the market area. It is not logical to consider this area for expansion, given the limited supply that is available. We decline to consider expansion of the Ordway, Darling, Forked Horn, McEwen and Bear Cat pits under the standard. Our reasoning is that they have deficient quantity to merit consideration for expansion.

Standard No. 1.

"Areas which do not require a new exception cannot reasonably accommodate the use" (ORS 197.732(1)(c)(B); OAR 660-04-02(1)(b)).

We find the following facts in the record relevant to this standard:

Exhibit A, attached and made part of these findings, is a map which describes each of the alternative sites under consideration. Exhibits D and E, attached and made part of these findings, are summaries of our findings concerning the characteristics of all alternative sites under consideration in this matter. These exhibits contain a summary of facts that we have examined and adopted from the initial and supplemental reports of Messrs. Lampi, See, Price, Gamble, and of the opponents' geologists. We specifically adopt as part of these findings each of the factual determinations which are set forth in Exhibits D and E.

The characteristics of the Seaside Reservoir QM zone (no DOGAMI permit) which we find relevant to this standard are summarized on Exhibit E. We note that a fair quantity of rock (1 million cubic yards) appears to be available for excavation at the Seaside Reservoir QM site. However, we note several important reasons why this site would be an extremely poor choice for a rock quarry. First, three residences are immediately adjacent to this zone, and a multi-space trailer park is located 350 feet from the border of the zone. One of these residences is surrounded on three sides by this site. An additional residence is located 600 feet from the western edge of this zone. Extraction and crushing on this site cannot meet DEQ noise standards, given the close proximity of the zone to existing residences. Of equal importance, the sole water

source for the City of Seaside (a large reservoir) sits directly adjacent to the zone. Two water transmission lines traverse the zone, and a treatment center is located nearby. The City of Seaside has expressed great concern over aggregate extraction activities on this site. In addition, the landowner of the property (Cavenham) has stated that this site will not be considered for a quarry and mining. Finally, deep overburden and vibration control present additional costs of operating on this site. The negative factors present at the site would not only increase the cost of material extracted from this site, but also provide a separate reason for allowing NO mining activity on the site. Because of all these negative factors, we conclude that the Seaside Reservoir QM zone cannot reasonably accommodate the use proposed by applicant.

We have previously analyzed the ability of the Johnson QM zone to reasonably accommodate the proposed quarry in Issue No. 1, Parts III and IV above. We incorporate by reference herein that entire analysis. Based on the findings and conclusions in that analysis, we conclude that the Johnson QM Quarry cannot reasonably accommodate the proposed use.

As with our discussion of the Johnson QM zone above, for the purpose of our discussion of this standard relative to the Rippet Quarry (04-0007), we incorporate by reference our previous analysis of the Rippet Quarry as set forth in Issue No. 1, Part III above. We find that the amount of material available for extraction at this nonconforming site is less than a 2-years' demand for aggregate materials in the market area. We find that two residences are located within 300 to 400 feet of the property and that an additional two residences are located within 800 feet of the property. Extraction activities at this site have considerable negative impacts on residences located this close. We find that aggregate from this pit is part of the product mix of the Johnson operation and that the average price from the Johnson operation is $6.00 per cubic yard. We find this to greatly exceed the projected cost of aggregate to be produced at the proposed site. Differential between the two figures represents additional cost to the consumers of aggregate-based products in Clatsop County. We find several environmental problems which limit development at the Rippet Quarry. Overburden at the site is relatively deep and causes handling problems during aggregate extraction. We find that the high, near-vertical face of the quarry presents reclamation difficulties. The site is clearly visible from U.S. Highway 101 and Highway 26 and cannot be screened, because it is a prominent topographic feature. Tne material from this quarry is presently being transported across U.S. Highway 101 for processing at the Johnson QM Quarry. Because we find only a small

amount of aggregate is available at this site (250,000 cubic yards) and because of the high price of the aggregate produced from this site in the market area, we find the Rippet Quarry does not meet two necessary requirements for the proposed use (i.e., large quantity and low cost). In addition, because we find that the Rippet Quarry presents environmental problems (possible overburden problems, reclamation problems, visibility problems and adjacent residences), we find that environmental restrictions exist here which are not present at the Bayview site and which would increase production costs and present operation difficulties. We conclude that a lack of material, the high price of material, and increased environmental impacts prevent this site from reasonably accommodating the proposed use.

With respect to the Ordway and Darling Quarries, we specifically incorporate by reference our discussion under Issue No. 3 of Part III above. As set forth in that analysis, the Darling Quarry contains rock which produced marginal test results that indicate that the average production from the site will not consistently meet necessary contract specifications. In addition, we find that aggregate recently produced at the site was rejected by the State of Oregon, because it failed to meet specifications. In addition, the Darling site contains only 100,000 cubic yards of material which is less than a one-year supply for the market area demand. We find that the Ordway Quarry failed several rock quality tests which indicates that the average production from the site will not consistently meet necessary contract specifications. In addition, we find that the Ordway Quarry contains approximately 160,000 cubic yards of material available for extraction which represents only approximately a one-year supply based on the market area demand. The applicant has proposed a use which is projected to use 100,000 cubic yards of aggregate material per year for a 20-year period and must have rock which meets necessary contract specifications. Because of the limited amount of material available at the Darling and Ordway sites, and because of the marginal quality, or lack of quality, at the two sites, we conclude that the Darling Quarry and the Ordway Quarry cannot reasonably accommodate the proposed use.

The Forked Horn Quarry is located on approximately four acres in an F-80 zone, 13 miles from the Cannon Beach junction. It is visible from Highway 26, and it contains a limited quantity of rock, approximately 100,000 cubic yards. The available quantity of rock at the Forked Horn Quarry is less than a one-year supply based on the demand in the market area and is significantly less than the amount of material needed to support the proposed use. In addition, the distance

of the Forked Horn Quarry from the market area adds a significant amount to the cost of the aggregate to be produced at that area if transported to the market area. We find that any material produced at that quarry and transported to the market area will add significant cost to the delivered product (approximately $2.60 to $3.50 per cubic yard), and we find that the Bayview site does not present this increased cost if it is located at the proposed site. Because we find that the Forked Horn Quarry does not contain sufficient material to support the proposed use and because of the increase in price due to this quarry's location outside the market area, we conclude that the Forked Horn Quarry cannot reasonably accommodate the proposed use.

The Bear Cat Quarry is approximately one acre in size and is located in an F-80 zone directly adjacent to U.S. Highway 26. Residences are located within 200 feet of the site. It is six miles distant from the Cannon Beach junction and contains a limited quantity of rock estimated to be approximately 148,000 cubic yards. Consistent with our analysis above, we find that the limited quantity of rock available at this quarry will not support the long-term use proposed by the applicant. In addition, we find that the proximity of this pit and its orientation toward nearby residences does not allow for adequate barriers to reduce sound from extraction equipment. Because of its physical location, the Bear Cat Pit will exceed existing DEQ standards for the nearby residences if extraction is allowed at the site. Because we find that the limited quantity of rock available at the Bear Cat Pit does not provide for a long-term use and because extraction operations at the site are not likely to meet DEQ noise standards due to the close proximity of residences, we conclude that this site cannot reasonably accommodate the proposed use.

The McEwen Clay Borrow Pit is less than one acre in size and is located in an F-80 zone directly adjacent to U.S. Highway 101. It is located in a scenic highway corridor and is approximately 900 feet from the closest residence. No commercial quality of rock is available at this site. We find that the applicant has proposed a long-term extraction use which requires quality rock which will meet State Highway Specifications. The McEwen Pit does not have this kind of rock. Accordingly, we conclude that the McEwen Clay Borrow Pit cannot reasonably accommodate the proposed use.

It has been the suggestion by the opponents in this matter that the cumulative amount of aggregate available in the market area is sufficient to meet the County's needs and that a

new production site is not warranted. We find that the annual demand in the market area to be served by the proposed quarry is 150,000 cubic yards per year. We find that the amount of aggregate available at all the sites analyzed under this standard totals 578,000 cubic yards. The figure does not include any additional material that could be produced at additional expense at the Johnson QM zone by digging below the floor of the existing quarry. We find that the additional expense associated with extracting that material makes this prohibitively expensive. The figure also does not include any material that might be available at the Seaside QM Quarry. We find that the negative factors present at that site are so overwhelming that no aggregate mining use shall be allowed at the site. The total amount of aggregate actually available for extraction at these sites represents less than a 4-years' supply based on the market area demand. This does not present the sufficient long term supply the County needs of an essential construction material. In addition, the applicant has proposed a central processing area where it may establish its operations and conduct sales to the public. If the applicant were forced to exhaust each of the various sites, it would be forced to change its location approximately once a year and would lose the advantage of a long-term centralized location. In addition, locations, such as the Forked Horn Quarry, would involve considerable expense for transportation of aggregate to the market area. Also, an extraction operation could not take place at the Bear Cat Quarry, because it would not be able to meet DEQ standards. Even if the material available in the exception areas (Rippet Quarry, approximately 250,000 cubic yards; Stevens River Rock Borrow Pit, 45,000 cubic yards; and Johnson F-80, 300,000 cubic yards) were added to the cummulative total, the amount of material available for extraction in the market area would only total 1,173,000 cubic yards. This provides less than an 8-year supply based on the market area demand. This is not a long term supply that is needed by the County for the strategic material in the future. The addition of these three pits also entails other difficulties which make it impractical to consider them cumulative. First, the Stevens River Pit has ground water near the surface and would not involve the same type of extraction that the applicant has proposed. In addition, to obtain the long-term quantities, the applicant would be forced to move its operations three additional times during an 8-year period. In addition, relying on existing sources would do nothing to address the sole source supply problem presented by the Johnson Quarry. The County roadmaster has indicated that at times the County has been unable to get rock from Johnson and that increased competition would be good for the county. Finally, with ownership of each of the cumulative quarries held by different people, there is no guarantee that the

applicant would be able to obtain the necessary quantity and quality or be able to locate his equipment at the various quarries. In fact, the record demonstrates that it costs the applicant additional money to locate his equipment at the Johnson operation under certain circumstances. The record also indicates that there is insufficient room at the Darling Quarry for a centralized operation. We find that all these negative factors make it unreasonable for the County to demand that the applicant obtain its rock from a series of different extraction areas over the next eight years. Accordingly, we conclude that the available alternative sites, considered cumulatively, cannot reasonably accommodate the proposed use.

In the event that any of the areas that we have determined should be analyzed under the "significantly more adverse" standards would be deemed to fall under the "reasonably accommodate" standard, we make the following findings. With regard to any expansion of the Rippet Quarry, we incorporate our analysis under Issues Nos. 1, 5 and 6 above. For our limited analysis discussion here, we find that it is sufficient to point to a single factor at the Rippet Quarry which prevents it from reasonably accommodating the proposed use. As is set forth in our analysis above, rock from the Rippet Quarry is part of the raw material mix which goes into the Johnson crushed aggregate product which is priced at approximately $6.00 per cubic yard. This price is considerably more than the $4.30/$4.45 per cubic yard cost for crushed aggregate that will be produced at the Bayview Quarry. We also find that in certain situations, Johnson's pricing policies for aggregate to be incorporated into bonded government jobs create price contingencies of up to $1.00 per cubic yard which prevent applicant from getting projects that are available in the market area. We find these two differentials to have an economic effect on the final price it is paid by the consumer in Clatsop County for products that incorporate aggregate materials. Any expansion in the Rippet Quarry is part of the Johnson operation which produces aggregate that is priced substantially higher than the cost of material produced at the Bayview Quarry. Johnson pricing policies have a negative effect on the price consumers in Clatsop County pay for aggregate products. These factors are related to the fact that Johnson is essentially a source of supply for high-grade aggregate in the County. We find that it is unreasonable to prevent competition, given the potential benefits to consumers in Clatsop County, and we conclude that any expansion of the Rippet Quarry cannot reasonably accommodate the proposed use.

The Johnson F-80 site (no DOGAMI permit) is previously discussed in our analysis under Issue No. 1 in Part III above.

We incorporate that analysis herein by reference. Consistent with that analysis, we conclude that the high price of the rock produced at this quarry and the low quantity of rock available for extractions prevent this site from reasonably accommodating the proposed use.

The Stevens River Rock Borrow Pit (04-0049) is located in a lake and wetland zone. A large portion of this site is identified significant wetlands in the County Goal 5 resource inventory. Ground water is encountered at approximately 3 to 5 feet below the surface of the ground at this site. Several residences and commercial establishments are located within 150 feet of the site. The site has approximately 45,000 cubic yards of material available for extraction. We find that rock extraction is incompatible with wetlands which are identified as significant wetlands in the County Goal 5 County-wide Element. We further find that the use proposed by the applicant is a long-term, high-volume aggregate use which could not be met by the limited quantity of material that is available for extraction at this site. We further find that rock extraction should not occur in areas that are indentified as significant wetlands in the County Goal 5 resource inventory. For these reasons, we conclude that the Stevens River Rock Borrow Pit cannot reasonably accommodate the proposed use.

We find that the Silver Point Quarry is approximately 1 acre in size and has approximately 100,000 cubic yards available for extraction. We find that the Silver Point Quarry presents significant danger of landslide damage in the surrounding area. We find that the amount of material available at the Silver Point Quarry is less than a 1-year's supply based on the market area demand. The Cavenham Pit Run, Cavenham Highway 101 and Halvorsen Quarry are extremely small (less than 1 acre or not visible in aerial photographs) and have no commercial quality of rock available. Because there is no commercial quality of rock available at the Cavenham Pit Run, Cavenham Highway 101 and Halvorsen Pits which meets the necessary quality specifications and because the Silver Point Quarry has a limited quantity available and has significant landslide dangers, we find that these sites cannot reasonably accommodate the proposed use.

As all the areas which do not require a new exception cannot reasonably accommodate the proposed use, we conclude that this standard has been met.

Standard No. 2.

OAR 660-04-020.

"(2) The four factors in Goal 2 Part II(c) required to be addressed when taking an exception to a Goal are:

* * *

"(b) 'Areas Which Do Not Require a New Exception Cannot Reasonably Accommodate the Use':

"(A) The exception shall indicate on a map or otherwise describe the location of possible alternative areas considered for the use, which do not require a new exception. The area for which the exception is taken shall be identified."

We find, consistent with our discussion in Parts I-V herein, that possible alternative areas which might conceivably accommodate the use have been located, described, and indicated on a map which is part of the hearings record and is made a part of these findings as Exhibit A. We also find that the area from which exception is taken has been similarly identified. Accordingly, we find that this Standard has been met.

Standard No. 3.

OAR 660-04-020(2)(b)(B).

"(B) To show why the particular site is justified, it is necessary to discuss why other areas which do not require a new exception cannot reasonably accommodate the proposed use. Economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas. Under the alternative factor the following questions shall be addressed:

"(i) Can the proposed use be reasonably accommodated on nonresource land that would not require an exception, including increasing the density of uses on nonresource land? If not, why not?"

We find that the only proposed alternative sites that are located on nonresource land are Stevens River Rock Borrow

Pit (04-0049, L&W zone), the Johnson QM zone (04-0011, QM zone), and the Seaside Reservoir QM zone (no DOGAMI permit, QM zone). We find that all the other proposed sites are located in F-80 or AF-20 zones and, therefore, are located on resource land. In our analysis under Standard No. 1 above, we concluded that none of the three sites specifically listed above could reasonably accommodate the proposed use. We incorporate the analysis of Standard No. 1 by reference herein and reaffirm our conclusion that none of these sites can reasonably accommodate the proposed use.

The three sites listed above constitute the only nonresource land identified in this hearing where aggregate resources might exist. Increasing the density of the uses on this nonresource land is not a logical exercise, given the fact that aggregate extraction is a consumptive use of the nonresource land. The extraction of aggregate actually consumes the land on which it is located. It does not make sense to attempt to increase the density of uses on the parcel of land that will be consumed as a result of the use activity. In addition, aggregate extraction cannot occur without proper regard for reclamation of this site or without regard to physical limitations of the extraction operation, including the necessity of blasting. Increasing the density of aggregate use would create problems with physical operation of a quarry and reclamation. It has been suggested by the opponents of the proposed site that the life of the Johnson QM zone could be extended by extracting beneath the existing quarry floor. In the event that this would be deemed to be an increase of the density uses on the Johnson QM site, we find that it is impracticable. The size of the property would restrict the below-grade extraction to a very small surface area, and no more than 145,000 cubic yards of additional material would be available. Limited area at the site available for extraction would limit the width and the height of face for blasting. Increased costs due to physical restraints of the size of the area and the blasting required will increase the cost of the material produced by approximately $1.00 per cubic yard. Material produced at this site is already priced at $1.55-$1.70 more than the proposed cost of material at the Bayview site. We find that one of the primary reasons for developing the Bayview Quarry is to make aggregate material available at a lower cost in the market area. This reason is defeated by attempting to extract beneath the floor of the Johnson QM Quarry. Because of the inherent impossibility of increasing the density of consumptive uses and because of the increased costs associated with

extracting below established quarry floors, we conclude that the proposed use cannot be reasonably accommodated by attempts at increasing the density of the uses on nonresource land. We find that the appropriate definition of "resource land" is found in OAR 660-040-005(2). For the purposes of this decision, we find that resource land includes only forest and agricultural lands. However, QM and LW zones are described as "resource zones" at pages 29a and 52 of LWDUO. In the event the classifications in the zoning ordinance would be deemed to supersede the statutory classifications in OAR 660-040-005(2), this standard would not apply because all the potential alternative sites would be located on resource land.

Standard No. 4.

OAR 660-04-020(2)(b)(B).

"(B) To show why the particular site is justified, it is necessary to discuss why other areas which do not require a new exception cannot reasonably accommodate the proposed use. Economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas. Under the alternative factor the following questions shall be addressed:

* * *

"(ii) Can the proposed use be reasonably accommodated on resource land that is already irrevocably committed to nonresource uses, not allowed by the applicable Goal, including resource land in existing rural centers, or by increasing the density of uses on committed lands? If not, why not?"

We find that land is irrevocably committed to nonresource use when uses not allowed by the applicable goal (in this case Goal 4) make uses allowed by the applicable goal impracticable. We find that we must examine the characteristics of the potential nonexception area in relationship to the characteristics of the adjacent lands to determine whether the physical improvements in the area make the resource land unsuitable for its resource use. We limit this discussion to the existing Rippet Quarry (04-0007), because all the other potential nonexception alternative sites are either located on nonresource land (Johnson QM Zone; Seaside Reservoir QM Zone;

Stevens River Rock Borrow Pit) or lack the necessary quality and/or quantity of materials to serve as a logical choice for the proposed use. (The existing portions of Ordway; Darling; Forked Horn; McEwen and Bear Cat, see analysis in Parts III and IV above). We incorporate our analysis under Standard No. 1 above, and our analysis in Part III, in support of this conclusion. We find that alternative sites which lack DOGAMI permits or have been closed by DOGAMI (Silver Point, Johnson F-80, Cavenham Highway 101, Cavenham Pit Run, Halvorsen and Stevens River Rock Borrow Pit) need not be analyzed because an exception is required for their use. In any event, these sites lack the necessary quality and/or quantity to reasonably accommodate the proposed use. We incorporate our analysis in Parts III and IV above in support of these conclusions.

Our review of the site description of the Rippet Quarry indicates that it is adjoined by timbered slopes. Review of aerial photographs submitted as exhibits in this matter shows that the Rippet Quarry is surrounded to the west by forest uses. The aerial photographs indicate that some tree removal activity has taken place on the site, but that the disturbed surface area is easily ascertainable and is surrounded by existing stands of trees. To the west of the Rippet Quarry are uninterrupted forest lands. The size of the disturbed surface area is small in comparison with the surrounding forest covered lands. Furthermore, there are no man-made features (such as highway or structures) that distinctly separate the Rippet Quarry from the adjacent resource land. We conclude that it is not impracticable for forest uses to continue around the Rippet Quarry and conclude that the adjoining resource land is not irrevocably committed to nonresource use. We find that no potential aggregate resource has been identified on land which is designated a Rural Center. As discussed under Standard No. 3 above, increasing the density of uses is not a concept that readily can be applied to a consumptive use, such as aggregate extraction. We conclude that increasing the density of uses is not an option for consumptive uses, such as aggregate extraction. Accordingly, we conclude that this standard is met. As discussed in Standard No. 3 above, we find that the appropriate definition of "resource land" is found in OAR 660-040-005(2). For the purposes of this decision, resource land includes only forest and agricultural lands. However, QM and LW zones are described as "resource zone" at pages 29a and 52 of LWDUO. In the event the classifications in the zoning ordinance would be deemed to apply under this standard, we find that our conclusions would not be changed. As discussed in Part III above and Standard No. 1 of Part IV

above, we find that Seaside Reservoir QM zone, the Johnson QM zone and the Stevens River Rock Borrow Pit cannot reasonably accommodate the proposed use. Accordingly, this standard is met under either definition of resource land.

Standard No. 5.

OAR 660-04-020(2)(b)(B).

"(B) To show why the particular site is justified, it is necessary to discuss why other areas which do not require a new exception cannot reasonably accommodate the proposed use. Economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas. Under the alternative factor the following questions shall be addressed:

* * *

"(iii) Can the proposed use be reasonably accommodated inside an urban growth boundary? If not, why not?"

None of the 14 potential alternative sites are located inside an urban growth boundary. The Stevens River Rock Borrow Pit is located adjacent to, but outside of, the Seaside urban growth boundary. We conclude that no sites have been identified inside an urban growth boundary and that this Standard is not applicable.

Standard No. 6.

"The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site, with measures designed to reduce adverse impacts, are not significantly more adverse than would typically result from the same proposal being located in areas requiring a Goal exception rather than the proposed site; ORS 197.732(1)(c)(C); OAR 660-04-020(1)(c)."

As set forth under Issues Nos. 5 and 6, Part III of these findings, we find that the characteristics of the alternative sites are fully described in the record, and the characteristics of the 14 sites, which have been identified as potential alternative locations for the proposed use, as well as the Bayview site, are summarized in Exhibits D and E, which we have adopted as part of our findings. We find that

these summaries accurately describe the characteristics of each site. We also find that the locations of these sites are shown on Exhibit A which we have made part of these findings. We incorporate by reference herein the materials contained in the summaries and the map. Under Issue Nos. 5 and 6, we discussed the characteristics, advantages and disadvantages of the Cavenham 101 Borrow Pit (04-0028), the Cavenham Pit Run Borrow Pit (04-0036), the McEwen Clay Borrow Pit (04-0046), the Stevens River Rock Borrow Pit (04-0049), and the Halvorsen Clay Borrow Pit (04-0032). Our analysis of findings and conclusions relative to these 5 sites is incorporated herein by reference and will not be repeated. Under Issues Nos. 5 and 6, Part III above, we also analyzed the characteristics and impacts of the Rippet Quarry and the Johnson F-80 site as compared to the proposed Bayview site. That analysis is incorporated herein by reference and will not be repeated.

Typical Advantages and Disadvantages of an Alternative Site.

All the 14 alternative sites which have been identified during this proceeding are typically located in an F-80 forestry zone. Only the Seaside QM Reservoir, Johnson QM Quarry, Ordway and Stevens River Rock Pit have different zoning (QM, AF-20 or L&W). The typical quality of rock from the 14 alternative sites varies greatly. Many of the sites have no commercial quality of rock which is available for extraction. Other sites which were tested had marginal or nonpassing results in critical indicator tests. The Bayview site contains rock which meets the necessary State of Oregon specification, and it is assumed that the Rippet, Johnson QM, Johnson F-80 and Forked Horn Quarries also provide State specification rock. The typical quantity available at the alternative sites is small. Many of the sites have less than 1 acre of extraction area available. Several of the mid-range sites present quantities of rock which range from 100,000 cubic yards to 160,000 cubic yards. The Johnson F-80 and Rippet Quarries contain between 240,000 and 300,000 cubic yards. Some additional material may be available at the Rippet Quarry if expansion is allowed. Overburden at the sites varies widely. It ranges from a 10 to 15 foot depth at the Bayview Quarry to as much as 30 feet at other quarries. Storage and disposal area varies widely among the alternative sites. Several of the sites are so small that it is difficult to project the amount of area that might be available for storage. Other areas, such as the Darling Quarry, have a demonstrated lack of disposal and storage area. Still other areas, such as Bayview and the Johnson QM Quarries, have ample storage and disposal areas. Operational area varies in the same manner as storage and disposal area varies among the alternative sites. Water availability is not generally

uniform among all the sites. Some sites, such as Forked Horn or Ordway Quarries, have no water supply nearby. Other sites, such as the Johnson QM site, are located adjacent to large streams. Bayview is adjacent to a small stream which may provide water that will be supplemented by importation during periods of low flow. Drainage and sediment treatment facilities vary greatly among the alternative sites. Some sites, such as the Darling Quarry, have a demonstrated problem with drainage control and cause sedimentation in nearby water bodies. Other sites, such as Forked Horn and Ordway Quarries, are remote from water sources, and drainage and sedimentation problems are not apparent. Still other sites, such as Bayview and the Johnson QM Quarry, are located near water bodies but have implemented or proposed adequate drainage and sediment treatment facilities. Blasting is typically needed at sites which will produce high-quality rock. However, it is possible that the Bayview site may be developed without the need for blasting. Similar equipment would be required to operate all the sites, except the Stevens River Borrow Pit, and noise that would be typically generated during the extraction and crushing phases of aggregate production are similar at most of the sites. However, the location and orientation of the quarry area provides advantages at some sites and disadvantages at others. For example, the mouth of the Bayview Quarry is oriented away from nearby residences. Whereas, the mouths of the Rippet and Johnson QM Quarries are oriented toward nearby residences. With the exception of the Stevens River Rock Pit, the alternative sites are generally located as part of, or adjacent to, relatively steep slopes. Stability of these slopes varies widely. For example, the Silver Point site has extremely unstable geology, and the Rippet Pit has experienced substantial landslides in the last five years. Other quarries, such as the Johnson QM zone and the proposed Bayview site, demonstrate slope stability. Surface and stream erosion vary at the sites depending on the steepness of the slope, the presence of vegetation and the location of adjacent streams. The Darling Quarry is located directly adjacent to Circle Creek and has had problems with sedimentation due to surface and stream erosion in the past. At the other end of the spectrum, the Johnson Quarry and the Bayview site, while adjacent to nearby streams, are not presented with large problems in erosion. This surface erosion does not appear to be a large problem with the Johnson QM site, and steps have been taken at the Bayview site to prevent any erosion problems. Flood possibilities depend on nature and extent of adjacent water bodies. Typically, the smaller alternative pits have no nearby body of water. Other pits have streams which are located nearby, and the Johnson F-80 site has a Class I stream which flows directly through the property. Wetland areas have typically not been

identified at any of the alternative sites. Areas which support vegetation which might be found in wetland areas occur at the Bayview site. A condition is included in the Bayview approval to insure protection of any areas determined to be wetlands. Riparian vegetation is present only at those sites which are located near a body of water. The County Comprehensive Plan defines the extent of riparian vegetation which typically extends 50 feet from the high-water mark of an adjacent stream. Fisheries and wildlife considerations are present at most of the sites. Virtually all the sites are classified as elk habitat. Fishery values are a consideration at sites located near Class I streams. Typically, there have been no adverse impacts on fisheries by the operation of aggregate quarries. In the past, the Darling Quarry has had some siltation problems. The Bayview application has proposed significant measures which will prevent adverse impact on fishery resources. Economic advantages related to extraction on the alternative sites vary widely. Some sites are so small and contain poor quality of rock so that they cannot economically support an aggregate use. Other sites have larger quantities of rock but are unable to produce rock which meets necessary highway specifications. The sites associated with the Johnson operation are at a disadvantage due to the high priced charge for the material. The Bayview operation has a distinct advantage in that the cost of materials produced is significantly lower than is available at the present time in the market area. Similar technology will be needed to extract rock at all sites except the Stevens River Borrow Pit. The energy consequences generally associated with the extraction process are similar at all the sites. However, some of the sites such as Bear Cat, Silver Point and Forked Horn Quarries, are located more distant from the market area and would require greater amounts of energy to transport the raw materials to the market area.

We find that many of the alternative sites which have been suggested typically result in less favorable environmental, economic, social and energy consequences if the Bayview use were located at the site. For example, many of the small sites simply do not have the quantity or quality of rock necessary to sustain the proposed use. This creates a severe long-term economic consequence which would result from any attempted location of the proposed use at these sites. Other sites have inferior rock quality or insufficient rock quantity. Again, this creates a long-term economic disadvantage that is not present at the Bayview site. Many of the sites are clearly visible from adjoining highways or have residences nearby. The Bayview extraction area is located approximately 2,800 feet from the nearest residence and cannot be seen from highway. Any site which is located closer to nearby residences or a

highway will generally have long-term social consequences which are not present at the Bayview site. Typical long-term energy consequences of using any particular site are roughly the same in terms of the amount of energy needed to extract the raw material. However, certain pits are located at greater distances from the market area which provides greater energy consumption in the long term. The Bayview site is located in the market area and is no less strategically placed in terms of energy consequences than any of the other sites. Long-term environmental consequences vary with each of the sites. However, given the measures proposed by Bayview and the conditions imposed by the County, the long-term environmental consequences of the Bayview site are small. Other sites would have difficulty with visibility, sedimentation and timber destruction problems.

We find that the attached Exhibit D summarizes the typical long-term environmental, economic, social and energy consequences that are related with each of the alternative sites which require an exception. Our analysis of Exhibit D, consistent with our findings in Parts III and IV herein, lead us to the conclusion that the Bayview site with measures to reduce noise, protect fisheries and stream values, protect wetlands and prevent dust does not present long-term environmental, economic, social or energy consequences that are more significantly adverse than would typically result from the same proposal being located at any other identified site that requires a goal exception.

Economic Characteristics and Impacts.

The Darling Quarry contains rock which received marginal test reports on standard tests used to determine whether average quality of rock will meet necessary construction standards. In addition, the Oregon Department of Transportation, Highway Division, recently rejected a lot of rock produced at the Darling Quarry, because it did not meet specifications. The rock at the Ordway Quarry failed four test specifications. Rock from the Bayview Quarry received acceptable test results on several indicator tests, and we find that the rock meets the necessary specifications for widespread use. No test results are available from the Forked Horn Quarry, the Silver Point site or the Bear Cat Pit. Rock quality at the Johnson F-80 and Rippet Quarries (expansion) are assumed to meet specifications. The quantity of rock available at the Darling Quarry, the Forked Horn Quarry and the Silver Point Pit are each limited to approximately 100,000 cubic yards. Rock available at the Bear Cat Quarry for extraction is limited to approximately 148,000 cubic yards. Rock available for extraction at the

Ordway Quarry is limited to 160,000 cubic yards. The Johnson F-80 Quarry has only approximately 300,000 cubic yards available for extraction. The active portion of the Rippet Quarry contains approximately 244,000 cubic yards, and some additional material is available if the quarry receives approval to expand. By contrast, the Bayview Quarry has approximately 2.5 million cubic yards of material available for excavation. For aggregate uses, Bayview Quarry would be the most productive, and the alternative quarries, on their own, would not provide sufficient rock to meet the use proposed at the Bayview site, given County demand of approximately 150,000 cubic yards per year. As discussed under Part IV above, we have determined that it is impracticable to attempt to consider the quantities available in the alternative pits in a cummulative fashion. Because of the lack of rock available for extraction at these other quarries, we conclude that they cannot produce sufficient rock to sustain the proposed use and that attempting to locate the proposed use at these sites would entail significant negative economic consequences. The negative economic consequences are not present at the Bayview site, and we find no other negative consequences at the Bayview site. We conclude that the long-term economic consequences resulting from the use at the Bayview site are not significantly more adverse than the consequences which would typically result from the same proposal being located at any one of these five quarries.

Environmental Characteritics and Impacts.

The Bayview site has sufficient room for sedimentation ponds to control sediment runoff into adjacent streams. By contrast, the Darling Quarry has insufficient space for sediment ponds. Sediment ponds are not a consideration at the Ordway Quarry, the Forked Horn Quarry or the Silver Point Quarry, because they are located away from nearby streams. In addition, sediment ponds are not a consideration at the Bear Cat Quarry, because the Necanicum River lies across Highway 26 from the site. The Johnson F-80 Quarry and Rippet Quarry (expansion) also appear to have sufficient room to locate sediment ponds. The ponds at the Bayview site are designed to meet to 100 year storm event. We find this to be an objective standard that will allow us to assess compliance with the conditions imposed by these findings. As discussed in Part III above, the geology at the Bayview site is stable, and landslides are not a problem. With the exception of the Silver Point Quarry, where landslides present a danger to U.S. Highway 101 and nearby residences, and the Rippet Quarry (expansion) where a large slide occurred in 1984, landslides do not appear to be a problem at the other sites. The Bayview Quarry is located away from highways and cannot be seen from any major traffic artery

or any residences. All the other quarries can be clearly seen from either U.S. Highway 101 or State Highway 26. The Rippet Quarry in particular is an eyesore which is widely visible and cannot be screened because of the topography present at the site. In addition, the Rippet (expansion), Johnson F-80, Ordway, Silver Point and Bear Cat Quarries also can be seen by nearby residences. The extraction area at the Bayview Quarry has been recently clearcut and no marketable timber is present. By contrast, the Rippet (expansion), Johnson F-80, Darling, Ordway and Silver Point Quarries have timber surrounding the extraction sites. The Forked Horn and Bear Cat sites appear not to be heavily timbered. Whereas, interruptions of the timber-growing cycle is not a problem at the Bayview site, development of the Rippet (expansion), Johnson F-80, Darling, Ordway and Silver Point Quarries would require removal of trees approaching market size. The reclamation plan at the Bayview site will limit any long-term effect of removing land from the County resource base by returning the area back to forest uses after the aggregate is exhausted. Similar reclamation appears to be possible at each of the other sites, with the possible exception of Rippet (expansion), where high faces may make reclamation difficult. An area which contains vegetation that might be found in wetlands has been described at the Bayview site. This type of area has not been described at any of the other sites. However, a condition imposed by the County will require that all the activities at the Bayview site take place above any wetland areas. Square Creek is directly adjacent to the Bayview Quarry site. The Ordway, Silver Point and Forked Horn Quarries do not have a stream in the vicinity. The Necanicum River runs directly through the Johnson F-80 site, and Circle Creek runs directly adjacent to the Rippet (expansion) Quarry. Anadromous fish and cutthroat trout have been identified in the waters adjacent to these areas. Bayview has proposed sedimentation ponds to control any adverse effect on the stream or the fisheries values. This sedimentation control plan has been described by the Oregon Department of Fish and Wildlife as a good plan and is designed to contain a 100-year storm event. All areas, including the Bayview site, are located within elk habitat. No actions will be taken at the Bayview site, such as fencing, which will inhibit the passage or migration of elk through the area. In addition, Bayview has agreed to maintain riparian vegetation setbacks which will both help preserve stream and fish values and enhance elk habitat. After weighing these characteristics and impacts, we find that the Bayview site has significant advantages related to its lack of visibility, its stable geology and lack of timber on the extraction area. A potential disadvantage at

the Bayview site (areas which contain vegetation which might be found in wetlands) has been addressed and mitigated by a condition which is a part of these findings. Stream values, riparian vegetation an fisheries values near the Bayview site will be protected by conditions and setbacks. On the whole, we conclude that the long-term environmental consequences resulting from aggregate extraction use at the proposed site, with measures designed to reduce adverse impacts, are not significantly more adverse than would typically result from the same proposal being located in any of these other sites.

Social Characteristics and Impacts.

Only the Bayview site cannot be seen from adjacent highways. The Bayview, Darling and Forked Horn Quarries are the only sites that cannot be seen by nearby residences. The Ordway Quarry has two residences within 1,500 feet, the Silver Point Quarry can be seen from resort motels, and the Bear Cat Quarry has a residence within 200 feet. The Rippet (expansion) Quarry has residences within 300 feet, and the Johnson F-80 site has several residences within 1,000 feet. Bayview's distance from the nearby residences and highways presents a smaller social impact than is presented at the other quarries. Activity at the Bayview site will be well within the sound limitations imposed by DEQ. In addition, we find that Ecola State Park, which is approximately 11,880 feet south of the Bayview site, is separated from the site by a ridge which will block view and sound. Sound levels from both machinery and blasting at the park will be well below the standards set by DEQ. Bayview has agreed to limit its hours of operation to between 7:00 a.m. and 10:00 p.m. to reduce noise impacts. Other sites, such as Bear Cat, may not be able to meet DEQ standards. A blasting accident has occurred on or near the Johnson F-80 Quarry which placed fly rock on neighboring property. The orientation of the Bayview extraction area is away from nearby residences. Bayview has agreed to maintain all roads in a dust-free fashion, and the crusher proposed for use at the site has all necessary DEQ permits. Prevailing winds will normally take dust impacts away from residences, and Bayview will not operate during December and January when winds might bring dust toward nearby residences. We also find that the Bayview operation may create in-County jobs by reducing imports. Weighing the relative advantages and disadvantages that are presented by each of these sites, we find that the long-term social consequences resulting from aggregate extraction at the Bayview site do not present any particular problems that are significantly more adverse than would occur at other areas. Bayview has several advantages which are not found at other sites. Any potentially adverse problems at Bayview

(i.e., sedimentation) have been addressed with measures designed to reduce adverse impacts. We conclude that the long term consequences of locating the proposed use at Bayview are not significantly more adverse than would typically result in the same proposal being located at any of the other sites.

Energy Characteristics and Impacts.

The Bayview, Rippet (expansion), Johnson F-80, and Darling sites are very near the market area to be served by the proposed use. The Ordway Quarry is 3 miles distant, the Silver Point and Bear Cat Quarries are approximately 6 miles distant, and the Forked Horn Quarry is 13 miles distant. We find that the sites closer to the intended market area enjoy an energy benefit in that additional fuel need not be expended to transport aggregate material. The mechanical extraction of aggregate to be used at the Bayview site would be necessary at any of the other sites and the extraction methods used at any site would be similar to those used at the Bayview site. Weighing these characteristics, we conclude that the long-term energy consequences resulting from aggregate extraction at the Bayview site are not significantly more adversed than what typically result from the same proposal being located at the other sites.

Given the lack of mature trees on the Bayview site, the short-term ability of this site to produce marketable trees is less than other sites under consideration (with the exception of Forked Horn and Bear Cat where no trees are present). Only these two areas where trees are not present would be less productive than the Bayview site in terms of timber production in the short run. The Bayview site, like most of the other sites under consideration, is located in a forest (F-80 or Af-20) Zone. Each of the sites is generally surrounded by forest land. The Darling and Bear Cat Quarries directly adjoin major highways on one side. The Rippet (expansion) Quarry is bordered by a County road on the east, and the Johnson F-80 Quarry is bordered by lowland on the south side of the Necanicun River. Activities on any of the sites will not inhibit the ability to sustain forest resources on adjacent forest lands. We note that at the Bayview site, the proposed quarry layout creates an extraction area with a separate stockpiling area. This will enable forest uses to continue in the space between the two areas. This design feature will help to sustain forest resources near the proposed use. The long-term effect of removing various extraction areas from the timber resource base is not very significantly different between the sites. The reclamation plan at the Bayview site insures that upon the cessation of aggregate activities, the area will be

returned to forest uses. Similar reclamation could be obtained at any of the other sites with the possible exception of the Rippet (expansion) Quarry. We find that none of these sites has a particular advantage resulting from a smaller long-term effect on the forest resource base. We find that Geologist See indicates that the Bayview site will not effect the spring located on the Jensen property. In addition, we find that a condition in the Bayview approval will help preserve any wetland sites that might exist on the site. Bayview has agreed to maintain appropriate setbacks from adjacent Square Creek. We find that because of these factors, the Bayview site will not have any effect on water resources or the water table. Finally, as indicated in the statement of Mr. Perrigo, there will be no need for City services at the Bayview site. In the event the water imported to the site would come from the City of Seaside, we find that Seaside has existing supply lines near the Cannon Beach junction which could supply water, and no new capital construction would be required. Access to the site is gained by private road which will not be maintained at public expense. In addition, we find that access to U.S. Highway 101 is presently undergoing improvements and that no additional expense will be involved in providing access to the major transportation artery in the County.

Standard No. 7.

"The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts." ORS 197.732(1)(c)(D); OAR 660-04-020(2)(d).

The compatibility of the proposed use with adjacent forest and residential uses has been previously analyzed in the County's approval findings from the first hearing dated February 26, 1986 and in Issue No. 7, Part III above. Both analyses are incorporated by reference herein as though fully set forth. Given the findings and conclusions in those analyses, we conclude that this standard has been met.

Standard No. 8.

ORS 197 and OAR Chapter 660, Division 14 require consideration of Goal 5 resources. Resources must be inventoried, conflicting uses must be identified and a program to achieve the goal must be developed. These issues, with respect to the Bayview site, hve been analyzed under Issues Nos. 7 and 8 in Part III above. This analysis is incorporated herein by reference. Given the finding and conclusions in that analysis, we conclude this Standard has been met.

PART V: SUMMARY AND CONCLUSIONS

The County will gain significant economic advantage by allowing the proposed use to proceed. Not only will the proposed site be able to produce materials at a lower cost, but the extistence of an additional independent extraction operation will increase competition in the County and help to reduce the County dependence on imported aggregate supplies. We have examined 15 sites and concluded that the Bayview site presents the largest quantity of high-quality material in the market area which it will serve. The opponents argue that all the alternative sites should be exhausted before a new site is approved. In response, we note that simultaneous use of varied sites across the market area does not allow for business planning and control, nor does it make allowances for future County needs. We find that demand in the market area is 150,000 cubic yards per year and that the alternative sites will provide approximately an 8-year supply of aggregate. Over two years have passed since Bayview first applied for this land use approval. If it took an additional two years to establish a site for alternative supply, a significant portion of the available rock reserve in the County would be exhausted. Our Comprehensive Plan recognizes that good aggregate sites are rare in Clatsop County and should be developed where possible. Our review of the facts concerning the 15 sites indicates that some of the sites can produce aggregate, but that none of the sites offer the advantages presented by the Bayview site. As such, the Bayview site is a unique combination of quality and quantity of aggregate resource located on forest lands. The short-term extraction of the aggregate resource will displace timber production on the area, but because of the assurances of reclamation at the site, the present use of the site for aggregate extraction does not entail a permanent loss of forest land. By approving the Bayview site, the County is in a position to enjoy the economic benefits of the aggregate resource in the short-term while enjoying the return of long-term forestry use benefits after the reclamation. We also note that approval of the proposed quarry will lessen the County's dependence on the Johnson operation as the sole source for aggregate in the Cannon Beach - Warrenton market area. Certain pricing policies by Johnson have the effect of raising prices to the consumers in Clatsop County. Our own roadmaster is on record as favoring the proposed quarry to increase competition in the aggregate market in the County. We find that approval of this use will lessen the County's dependence on imported aggregate material. We also find and conclude that aggregate extraction is a consumptive use of resources that is necessarily accompanied by impacts, including noise. We find this site is

specially suited, considering the applicant's extraction plan, to reduce the noise impacts. The applicant's proposed use will provide a second source of a necessary commodity in the County. This commodity is not widely available in Clatsop County and is generally available only in forest zones. The commodity will be produced at a lower cost than is presently available in the County. The proposed use will be conducted in an environmentally sound manner that will return the land to forest production once extraction is terminated. The location of the site is away from scenic highways and heavily populated areas. The applicant has taken special steps to design its project so that DEQ noise levels will be met which will lessen or eliminate adverse impacts that might be experienced by neighbors. The applicant has taken special steps to eliminate any adverse impact on fish, wildlife and foresty uses. We conclude that the forgoing reasons justify why the State policy embodied in Goal 4 (to preserve forest lands for forest uses) should not apply to the proposed Bayview site. We find that we have addressed all the appropriate and relevant standards in these findings and that there are no others.

LIST OF EXHIBITS TO FINDINGS

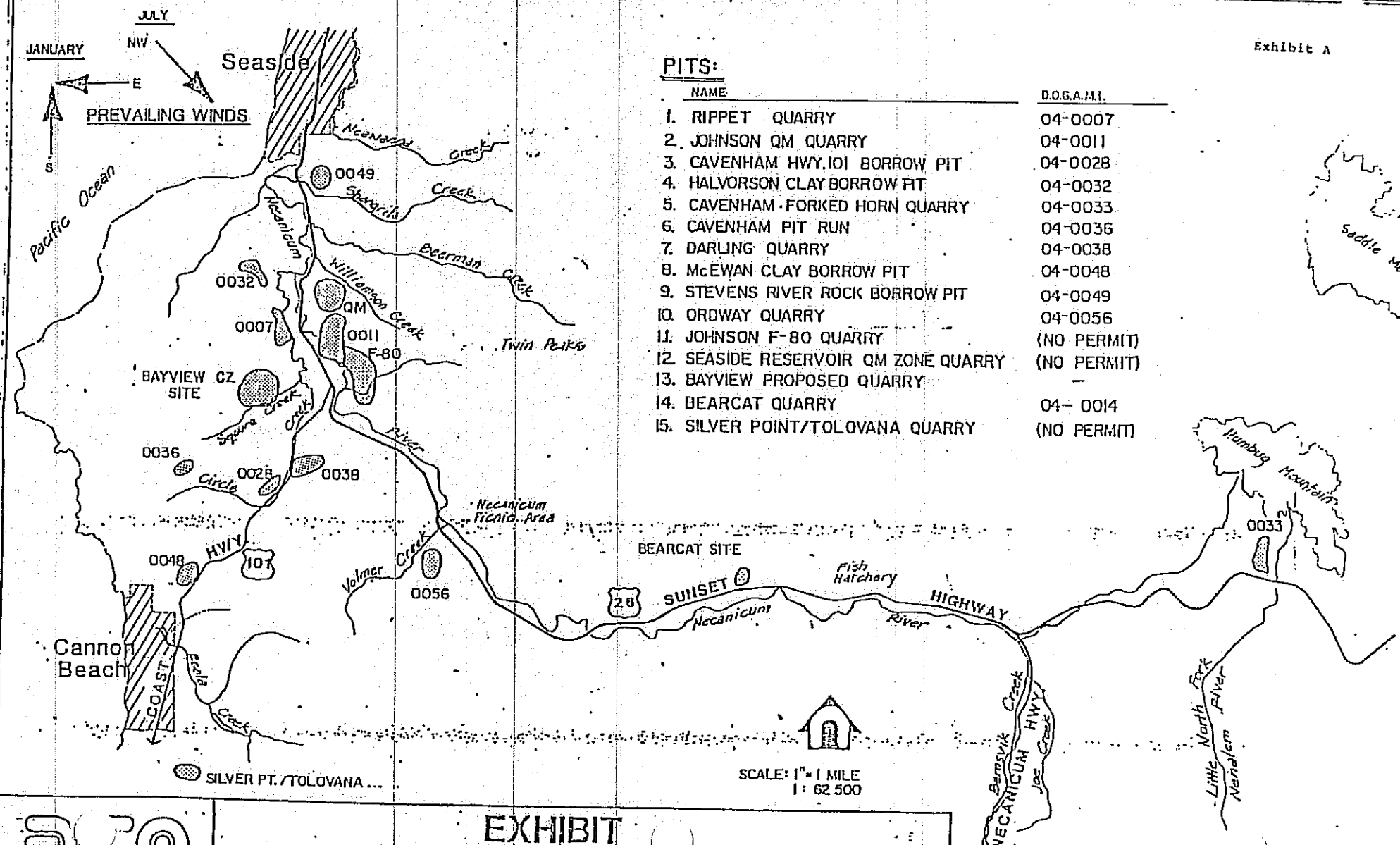
A. Location of Alternative Aggregate Resource Sites (Exhibit 97 of the Record)

B. Bayview Staged Extraction (Page 2 of Exhibit 93 of the Record)

C. Conditions of Approval (Pp 98-99 of Exhibit 11 of the Record)

D. Summary of Characteristics and Impacts of Uses on Alternative Sites (Exhibit 4 to Exhibit 90 of the Record)

E. Fact Summary, Alternatives/Reasonably Accommodate (Exhibit 3 to Exhibit 90 of the Record)

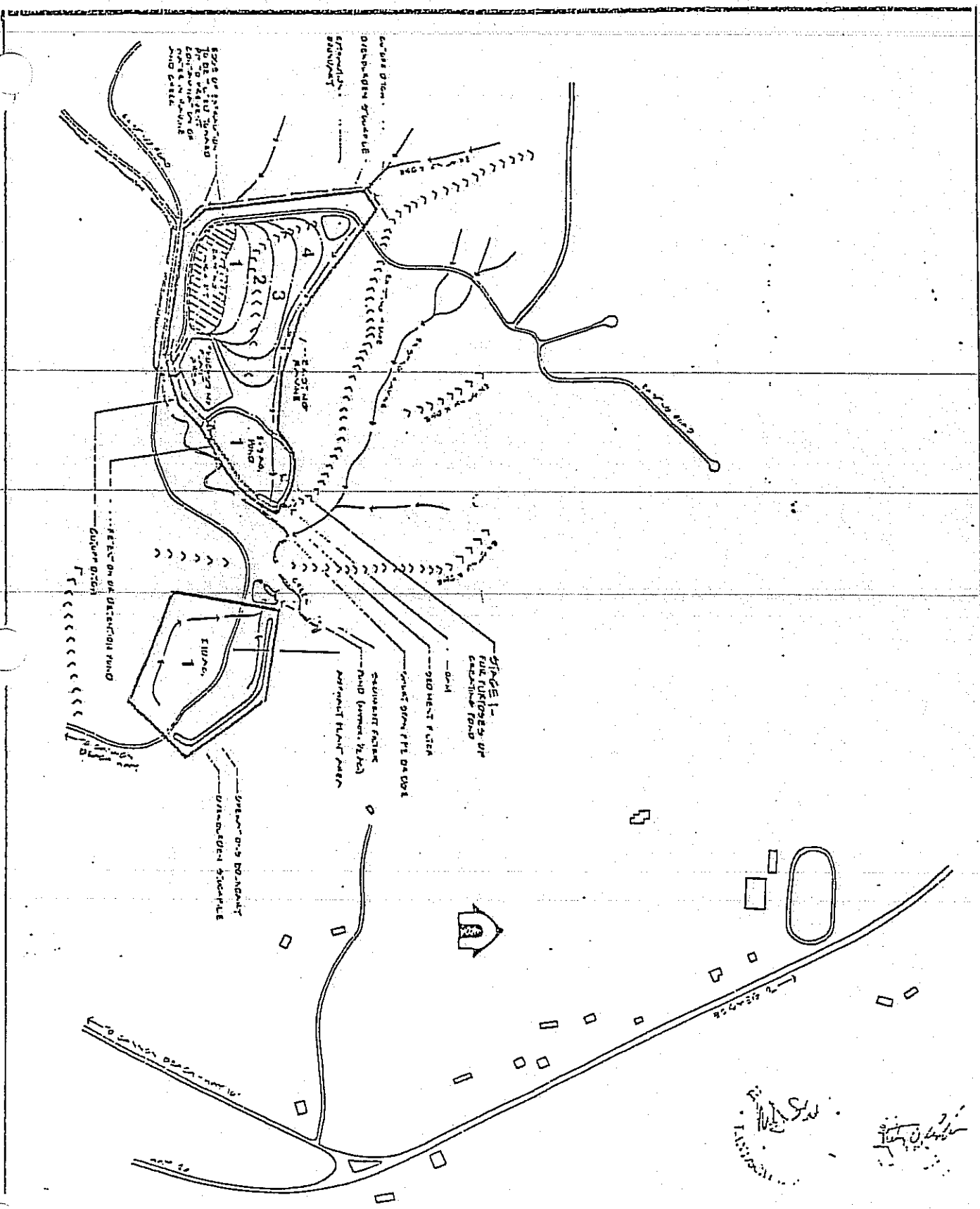


SCALE: 1" = 1 MILE
1 : 62 500

PITS:

	NAME	D.O.G.A.M.I.
1.	RIPPET QUARRY	04-0007
2.	JOHNSON QM QUARRY	04-0011
3.	CAVENHAM HWY.101 BORROW PIT	04-0028
4.	HALVORSON CLAY BORROW PIT	04-0032
5.	CAVENHAM-FORKED HORN QUARRY	04-0033
6.	CAVENHAM PIT RUN	04-0036
7.	DARLING QUARRY	04-0038
8.	McEWAN CLAY BORROW PIT	04-0048
9.	STEVENS RIVER ROCK BORROW PIT	04-0049
10.	ORDWAY QUARRY	04-0056
11.	JOHNSON F-80 QUARRY	(NO PERMIT)
12.	SEASIDE RESERVOIR QM ZONE QUARRY	(NO PERMIT)
13.	BAYVIEW PROPOSED QUARRY	—
14.	BEARCAT QUARRY	04- 0014
15.	SILVER POINT/TOLOVANA QUARRY	(NO PERMIT)

EXHIBIT



DAVID EVANS and ASSOCIATES, INC.

Staged Extraction Plan

BAYVIEW TRANSIT MIX, INC.

Seaside, Oregon

Exhibit B

taff recommends the following conditions for approval:

1. Preventative measures shall be taken to assure that excessive noise, dust, vibrations, and other nuisances associated with mining activities are avoided. The applicant shall coordinate with the noise pollution control section of the Department of Environmental Quality to mitigate possible excessive noise emissions from rock extraction and sorting operations. Steps to lessen noise pollution impacts on nearby residential/commercial properties should include time of operations.

2. The proposed use will require protection of water quality in nearby Circle Creek and its tributary creeks. The applicant shall coordinate with the Oregon Department of Fish and Wildlife for proper drainage design from the pit so water turbidity levels are not increased in Circle Creek and Square Creek. Settling basins as well as an upland site to dispose of non-usable material shall be required if pit drainage is directed to Circle Creek.

3. Obtain a valid permit from the Oregon Department of Geology and Mineral Industries for the rock quarry operations and the stock pile site.

4. Rock crushing opeartion shall comply with Air Contaminate Discharge Permit issued by the State Department of Environmental Quality and Section 3.470 of Clatsop County Ordinance 80-14.

5. State and Federal Permits. Applicants for developments which require a state or federal permit shall submit to the Planning Director a copy of: the complete permit application, other surrounding material

6. All private access and service roads shall be maintained in a dust-free condition during intensive operations.

7. Prior to operations which will result in open excavation with a depth of ten feet or more and a slope steeper than one vertical foot to two horizontal feet and which is located within 100' of a residentially occupied structure, a fence shall be erected at least ten feet outside the edge of the excavation at least four feet in height, to control access to such excavation.

8. No mining or structural improvements shall occur within the riparian setbacks as specified in S4.502. In no case, however, shall the minimum setback from a waterway be less than 25'.

9. Clatsop County Department of Planning and Development shall be notified in advance by the applicant, lessee or purchaser of rock material of the location of any fill or riprap for which the rock or mined material will be used. This condition is limited to all areas identified in the Clatsop County Comprehensive Plan as an Esturaine Resource Coastal Shorelands, Beach and Dune areas and significant wetland areas. All permits required by local, state and federal agencies for fill or riprap must be approved prior to placement within one of the areas identified above.

10. Reclamation plans for surface mining opeartions must show that they are consistent with the Comprehensive Plan.

11. Provide boundary line surveys of the quarry and stock pile sites for purposes of defining the affected areas proposed to be re-zoned into the QM zone district.

12. Obtain a Clatsop County Land and Water Development and Use permit to validate that conditions 1,2,3,4,5,6,7,8,and 11 have been completed prior to rock extraction and stock pile operations.

13. Obtain a Clatsop County Land and Water Development and Use permit prior to placement of a concrete, ready-mix, or asphalt batching plant.

14. Obtain a Clatsop County Land and Water Development and Use permit for signs, offices, warehouses and maintenance buildings appropriate to uses permitted in the QM zone.

CONDITIONS OF APPROVAL

1. No barriers will be constructed to prevent wildlife migration, unless required by adjacent residential uses.

2. Extraction operations on the site will be limited to the hours of 7:00 a.m. through 10:00 p.m.

3. No extraction activities will occur during the months of December and January.

4. The toe of any development will be located according to regulatory approval to protect wetlands.

5. Rock drilling equipment no louder than 90 dBA [L(50)] will be used at the extraction site.

6. Minimum stream flow for Square Creek needs to be established by the Oregon Water Resources Department. Water in excess of the prescribed minimum streamflow developed by the Water Resources Department shall not be removed from Square Creek.

7. Extraction shall be in accordance with the staged extraction plan as submitted by applicant as printed by David Evans & Associates, Inc. on August 26,1987.

Exhibit D

Exhibit E

FACT SUMMARY
ALTERNATIVES/"REASONABLY ACCOMMODATE"

	Bayview	Johnson QM	Johnson Rippett (No Expansion)	Seaside Reservior QM Zone
DOGAMI No.	Pending	04-0011	04.0007	None
Rock Quality	OK	OK	OK	OK
Commercial Rock Quantity (Cubic yards)	2.85 Million	70,000* (215,000 w/below-level extraction)	250,000*	1 Million
Transportation (stock pile to Cannon Beach Jct.)	1.2 mi.	.75 mi.	1 mi.**	.75 mi. (if access allowed through Johnso
Overburden Depth	Minimal (10-15 ft)	Minimal (15-20 ft)	Possible problem	Problem 20-30 feet)
Reasonableness of Reclamation	OK	Difficult	Problem	-
Residence/Distance (in feet) from Crusher or Mining	1/2400	1/200 6/400 4/1000 Riverside Trailer Park/300	2/3-400 1/700 1/800	Riverside Trailer Park/350* 3/adjacent* 1/600*
Acreage Available	30	16.3	5	12.79
Present acres used	3	15+	5	None
Zoning	F-80	QM	F-80	QM
County permit	Pending	Authorized	Nonconforming use (no expansion)	No permit
Economics	Low cost $4.30	High price $6.00* Cost increase if below-level extraction occurs)	High price $6.00*	Overburden problem High price if developed by Johnson
Other Problem	DEQ noise levels met	1.5 to 1 slope difficult Blasting impacts	High face 1.5 to 1 slopedifficult Cross 101 on curve eyesore/screening/ material is transported for processing	Landowner reluctance Sole water source Seaside Reservior* 2 water transmission pipes on site, Cannot meet DEQ noise

* The main reasons for eliminating the pit
** If crushed at QM add .2 mi.
- .means information not available

Source: ampi, "Bayview Transit Mix Evaluation ort" (July, 1987) (including update)
avid Evans & Assoc., "Compatibility St etc," (1987) (including update)

FILE

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

DEC 23 1987

42

ORDINANCE NO. 87-18

(AN ORDINANCE AMENDING THE CLATSOP
(COUNTY COMPREHENSIVE PLAN AND ZONING
(MAP, TAKING AN EXCEPTION TO GOAL 4
(FOREST LANDS, AS ADOPTED BY THE BOARD
(OF COUNTY COMMISSIONERS, ADOPTING
(CERTAIN FINDINGS, RESCINDING
(INCONSISTENT PROVISIONS AND DECLARING
(AN EMERGENCY

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the Amended Findings to Bayview Transit Mix Rock Quarry Project Amendment (LUBA Remand).

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Land and Water Development and Use Ordinance. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the Clatsop County Land and Water Development and Use Ordinance.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Board of County Commissioners has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Board held a public hearing on this ordinance pursuant to law on December 23, 1987.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supercede, control and repeal any inconsistent provision of the Clatsop County Comprehensive Plan, as amended, the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force immediately upon adoption as set forth in the emergency clause.

SECTION 7. EMERGENCY CLAUSE.

In order to implement the findings of the Board with the greatest expedience and in order to realize the benefits to be derived from the adotion of this ordinance amending the Clatsop County Comprehensive Plan and Land and Water Development and Use Ordinance Map an emergency is declared to exist and this ordinance shall become effective immediately upon its passage.

SECTION 8. ADOPTION CLAUSE.

The Board of Commissioner's hereby adopts the findings and conclusions set forth in Exihibit "A" attached hereto and by reference herein made a part of this ordinance in its entirety.

ENACTED this 23rd day of December, 1987.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

BY _____
Bob Westerberg, Chairman

BY _____
Roger A. Berg, Commissioner

BY _____
Deborah Boone, Commissioner

Vote: Aye: Bob Westerberg - Roger Berg - Deborah Boone

Nay: - 0 -

Abstention: - 0 -

Attest: _____
Recording Secretary to the Board

Date: December 23, 1987

Date of first reading: December 23, 1987

Date of second reading: December 23, 1987

Date Ordinance submitted to Board of Commissioners: December 11, 1987

EXHIBIT "A"

STATEMENT OF STANDARDS, FACTS AND JUSTIFICATION IN SUPPORT OF BAYVIEW TRANSIT MIX, INC. REQUEST FOR ZONE CHANGE FROM FOREST-80 ZONE TO QUARRY AND MINING ZONE, INCLUDING EXCEPTION TO GOAL 4, TOWNSHIP 5 NORTH, RANGE 10 WEST, WILLAMETTE MERIDIAN, PORTIONS OF TAX LOTS 700 AND 1,000; TOWNSHIP 5 NORTH, RANGE 10 WEST, WILLAMETTE MERIDIAN SECTION 4, PORTIONS OF TAX LOT 100, CLATSOP COUNTY, OREGON

PART I. LIMITED ISSUES FOR DECISION BEFORE THE BOARD OF COMMISSIONERS

This is a remand proceeding arising out of our approval of Ordinance No. 86-10 dated April 2, 1986. After receiving a substantial amount of testimony, we adopted that ordinance which approved a revision to the Clatsop County comprehensive plan and zoning map by creating a quarry and mining zone. Opponents, Mr. & Mrs. Otto Jensen appealed our decision to the Land Use Board of Appeals ("LUBA"). LUBA remanded the matter on August 6, 1986 for further consideration of specific issues by the County. In this remand matter, opponents, Mr. and Mrs. Jensen, are joined by Howard E. Johnson and Sons, Inc. By resolution and order directed to interested parties dated May 27, 1987, we scheduled further proceedings on this matter. The resolution and order dated May 27, 1987 specifically limited the remand proceeding to matters raised in the opponents First and Third Assignments of Error. After careful consideration of the LUBA opinion and the doctrine of law of the case, we find that LUBA has limited this remand proceeding to the following questions:

A. Alternative site criteria: Can the proposed aggregate use be "reasonably accommodated" on nonresource land that would not require an exception?

LUBA limited this question to three issues:

Issue No. 1.

Can the Johnson QM Zone reasonably accommodate the proposed quarry?

Issue No. 2.

Does substantial evidence support Bayview's cost estimate for crushed rock from the proposed quarry?

Issue No. 3.

Do the Ordway and Darling Quarries have sufficient rock quantity and quality to support the proposed quarry?

B. Alternative site criteria: Does location of the proposed quarry at the Bayview site cause "significantly more adverse" consequences than location of the quarry at another site requiring the goal exception?

LUBA limited this question to three issues:

Issue No. 4.

Do the five alternative sites listed by the County (Cavenham Highway 101 (04-0028), Halvorsen (04-0032), Cavenham Pit Run (04-0036), McEwen Clay Borrow Pit (04-0048), and Stevens River Borrow Pit (04-0049)) have sufficient quantity and quality of rock to support the quarry?

Issue No. 5.

What are the characteristics of the alternative sites?

Issue No. 6.

What are the impacts that would "typically result" from locating the proposed quarry at the sites and are these impacts less severe than location of the quarry at the Bayview site?

C. Compatibility.

Issue No. 7:

Is the proposed quarry "compatible" with the adjacent residential uses?

D. Goal 5 Conflicts.

Issue No. 8:

What are the economic, social, environmental and energy consequences to Goal 5 resources of allowing processing of crushed rock at the proposed site?

Issue No. 9.

Given the economic, social, environmental and energy consequences, the County must "develop a program to achieve the Goal."

We find that these questions are the only matters before the Board as a result of the LUBA remand order. Each question is specifically addressed in Part IV below.

PART II: NATURE OF DEVELOPMENT

1. Action Supported by Statement.

This Statement supports approval of a Plan Designation Amendment and Zone Change Request by Bayview Transit Mix, Inc. The applicant seeks a change in a comprehensive plan designation on the site from Conservation Forest Lands to Conservation Other Resources and a zoning change from F-80 (Forest-80) to QM (Quarry and Mining). The requested changes will permit applicant to establish a quarrying, crushing and stockpiling operation on the site. This approval is accompanied by 21 conditions, a copy of which is attached hereto as Exhibit "C". Applicant intends to use greater than 25 percent of the aggregate extracted from the site in nonforest uses and has requested the comprehensive plan designation change and zoning ordinance change to permit commercial rock extraction activities.

2. Site Description.

The proposed site consists of two irregularly shaped parcels located in Township 5 North, Range 10 West, Willamette Meridian (portions of Tax Lots 700 and 1,000 and portions of Tax Lot 100 of Section 4), Clatsop County, Oregon. The site is located due west of U.S. Highway 101 near the intersection of State Highway 26. The area affected by the proposed changes is approximately 30 acres in size and is owned by Cavenham Forest Industries (formerly Crown Zellerbach). The applicant has obtained a lease from Cavenham Forest Industries ("Cavenham") which will allow it to conduct aggregate extraction and related activities. The proposed site is located concurrent with an existing aggregate pit that has been used by Cavenham for many years as a source of rock. The general area for which the quarry is proposed has been recently logged and does not, at present, support marketable timber.

Applicant has proposed an extraction site which is approximately 20 acres in size and is located on the south side

of an existing ridge coterminous with the west side of the existing Cavenham Quarry site. In addition, approximately 500 feet to the east, applicant has proposed a 10-acre stockpiling site. An existing creek, Square Creek, runs adjacent to the proposed extraction area. Approximately 2,800 feet to the north and east of the proposed extraction area and approximately 800 feet to the north and east of the proposed stockpile area is a mobile home owned by Otto and Pat Jensen ("Jensen"). The Jensen home is located in an AF-20 zone by virtue of obtaining a conditional use permit. Farther to the north and east are other residences and commercial developments.

The Clatsop County Land and Water Development and Use Ordinance ("LWDUO") provides that the proposed site is located in an F-80 (Forest-80) zone. The land use plan designation for the proposed site is Conservation Forest Lands.

3. Summary of Proposed Action.

The applicant has proposed to institute a new commercial extraction and processing operation at the already existing Cavenham aggregate quarrying site and adjacent stockpile area. The aggregate removed from the site will be used in primarily nonforest uses. As a result, applicant has requested a land use plan designation change and zoning change to allow the proposed use to occur on the site. As shown on the applicant's site plan, setbacks, vegetation buffers, berm barriers, sedimentation ponds and other measures will be employed to reduce the environmental impact of the proposed operation. Applicant has applied for a Department of Geology and Mineral Industries ("DOGAMI") Reclamation Permit and has agreed to obtain all necessary Oregon State Department of Environmental Quality ("DEQ") approvals.

PART III: ISSUES FOR DECISION ON REMAND

Issue No. 1.

Can the Johnson QM zone reasonably accommodate the proposed quarry?

With regard to the Johnson QM site, we find the following relevant facts in the record:

The Johnson QM site (located on Exhibit A, attached) is located 3/4 mile north of the Cannon Beach Junction and 1/8 mile east of Highway 101. It has an estimated area of 16 acres and remaining rock at about 155,000 cubic yards. After setbacks,

overburden, safety and reclammation factors are taken into consideration, the Johnson QM Quarry will produce approximately 70,000 cubic yards. The use proposed by the applicant is a long-term aggregate extraction facility which would help to meet Clatsop County's aggregate demand over an extended period of time (20 years). Applicant proposes to produce a full range of commercial aggregate products. A long-term source of supply is required to satisfy several necessary business considerations, including lead time to prepare bids on large projects and amortization of capital equipment costs. The primary market area to be served by the proposed quarry is the Cannon Beach to Warrenton strip, although aggregate operations in the area, including Bayview and Johnson, successfully compete for projects as far away as Knappa. The demand in this market area is estimated to be 97,000 cubic yards per year by Johnson's geologic consultant. However, production figures supplied by Johnson indicate that Johnson alone has produced a minimum of 86,888 cubic yards of crushed rock per year for the last 10 years. In addition, DOGAMI indicates that aggregate production for nonforest uses in the Cannon Beach-Seaside area alone is approximately 129,000 cubic yards per year. This DOGAMI figure does not include imports into the area. Bayview alone has imported an average of 22,791 cubic yards of crushed aggregate per year for the years 1982-1985. This Bayview import figure does not include round river rock imports. Bayview's project management engineer estimates the annual market demand to be 250,000 cubic yards. The Oregon Concrete and Aggregate Producers Association ("OCAPA") data and testimony supports an annual per capita consumption figure of 12 to 13 cubic yards per year, which would produce an annual demand in this market area of 161,000 cubic yards. We find that the 97,000 cubic yard figure offered by Johnson's geologic consultant is not reliable. Johnson's own production figures, without taking into account imports or other rock produced, indicate that the annual consumption in the market area is significantly higher. In addition, it is unclear how much of the Rippet Quarry production needs to be added to the Johnson crushed rock figures. The DOGAMI production figures for the area are based on actual recorded output by the producers, and provide a more accurate figure of market area demand than that figure offered by Johnson's geologists. However, even the DOGAMI figures do not take into account rock which is imported into the County (including round rock) or rock used for forest uses. We find that an accurate estimate of the aggregate demand in the market area must include all sources, including aggregate that is imported, round rock, and rock used for forest uses. Accordingly, we find that the DOGAMI production figures must be

increased to be accurate. Bayview alone has imported in excess of 22,791 cubic yards of crushed aggregate material per year in the market area during the years of 1982-1985. This figure does not include round rock imported by Bayview. Accordingly, we believe that even the OCAPA production figure of 161,000 cubic yards is conservative, and we find that average annual demand in the Cannon Beach to Warrenton market area lies between OCAPA's estimate of 161,000 cubic yards and the estimate of Bayview's project management engineer of 250,000 cubic yards.

We find that our conclusions as to the annual demand in the market area are bolstered by the distances of Astoria, Warrenton and Hammond from the Cannon Beach junction. We find that areas within 20 miles of the Cannon Beach junction can be considered part of the market area to be served by the proposed quarry. Mr. Redfern, in his rebuttal statement, gives distances which would place Astoria, Warrenton and Hammond at least 25 miles from the Cannon Beach junction. We find that Mr. Lampi checked the distance with an odometer and provides a more accurate description of how far each of these cities lies from the Cannon Beach junction. We find that the east boundary of Hammond lies 18.3 miles, not 27 miles, from the Cannon Beach junction. We find that the south boundary of Warrenton lies 13.8 miles, not 25 miles, from the Cannon Beach junction. We find that the south boundary of Astoria is 18.5 miles, not 29 miles, from the Cannon Beach junction. The distance discrepancy in the Redfern report tends to artificially reduce the extent of the market area and is a reason why the demand figure offered by Mr. Redfern is low. The supply available at the Johnson QM Quarry (04-0011) for extraction is approximately 70,000 cubic yards. In the words of the opponents' geologist, this existing quarry is "pretty well used up." It may be possible to extend the life of this quarry by excavating the quarry floor. Excavating the floor could produce approximately 145,000 cubic yards of additional material, but this extraction would add approximately $1.00 to the cost of each cubic yard produced. The average price for aggregate materials produced by Johnson is $6.00 per cubic yard. Although Johnson claims that its average price for aggregate is approximately $5.00 per cubic yard, we find that a number of factors support our conclusion that the average Johnson price is $6.00 a cubic yard. First, Bayview's purchase of rock from Johnson averages approximately $6.00 per yard. Second, price quotes obtained by Mr. Gamble indicate that the average price of Johnson rock is in excess of $6.00 per cubic yard. Third, the Johnson bid price for rock to be incorporated in the Cannon Beach junction job was in excess of $6.00 per cubic yard. Accordingly, we find the $5.00 per cubic yard price claimed by Johnson is unrealistic, and the average price of aggregate produced by Johnson is $6.00 per cubic yard. The projected average cost for aggregate materials produced by Bayview is $4.30/$4.45 (our discussion of the Bayview price in Issue No. 2 below is incorporated herein).

As demand in the market area is between 161,000 and 250,000 cubic yards per year, we find that the Johnson QM Quarry (04-0011) has a service life of less than one-half year because only 70,000 cubic yards of material is located at that quarry. We find that even if below-floor extraction occurs, the total amount of material at the Johnson QM Quarry would be 215,200 cubic yards. Because this combined figure is less than a 16 month supply, this quarry does not present a possible long term source of supply for the use proposed by Bayview. Further, economic factors can be considered in determining whether the Johnson QM site can reasonably accommodate the proposed use. Because aggregate material from the Johnson operation is priced at approximately $6.00 per cubic yard, it is considerably more expensive than the projected cost of aggregate ($4.30/$4.45 per cubic yard) at the proposed quarry. The price differential between the price of the Johnson product and the cost of the Bayview product ($1.55 to 1.70) is reflected in the price that consumers in Clatsop County pay for aggregate-based materials and is a sufficient economic reason, in and of itself, to conclude that the Johnson site cannot reasonably accommodate the proposed use. The additional $1.00 per cubic yard cost necessarily incurred by extraction below the quarry floor would serve to enlarge the differential between the price of Johnson's product and the cost of the product produced at the proposed quarry. Such an increase in the price differential makes it economically unreasonable to rely on the higher priced aggregate which could be extracted below the floor of the Johnson QM Quarry. We conclude that the Johnson QM Quarry can-not reasonably accommodate the proposed use, and further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

As discussed above, we have concluded that LUBA required us to address whether or not Johnson can reasonably accommodate the proposed use. We find that this question is directed only to the Johnson QM zone and have concluded that the Johnson QM Quarry cannot reasonably accommodate the proposed use. In the event LUBA's discussion of "Johnson" on this issue would be deemed to include the Johnson F-80 site (no DOGAMI permit) and/or the existing Rippet Quarry (04-0007) (both located on Exhibit A, attached) operated by Howard E. Johnson and Sons, Inc., we find the following facts in the record:

The Johnson Quarry operation is presently not operating in the QM zone but has advanced into the F-80 zone located to the southeast of the Johnson QM zone. Less than 75 percent of the materials extracted from the Johnson F-80 site are used on forest lands and forest zones. No land use

approvals have been obtained for operation of an aggregate extraction facility in the F-80 zone. The size of the F-80 parcel owned by Johnson is approximately 10.2 acres. A sizeable portion of this parcel is located across the Necanicum River (on the south side) from the Johnson extraction and processing operation. The Necanicum River, a Class I stream, runs directly through this 10.2 acre site. The site is bordered on the west by an RA-5 zone which extends to the Necanicum River to the south. Setbacks for quarry operations are required from an RA-5 zone and from the Necanicum River. Presently, no direct access to the Johnson processing operation exists from the portion of this site located to the south of the Necanicum River. In June, 1987, a blasting episode at the Johnson operation caused fly rock to be placed on top of structures in the area. The source of this fly rock problem was either the Johnson QM zone or the Johnson F-80 zone. Based on the record before us, we find that the Johnson F-80 zone contains approximately 300,000 cubic yards available for extraction. The Rippet Quarry has been gradually expanded beyond its original existing boundary, but at present, the extraction area is approximately 5 acres in size. No County land use approval has ever been obtained for this extraction site. The nonconforming use area of the Rippet Quarry contains approximately 244,000 cubic yards of aggregate material. A high, nearly vertical development face exists at the Rippet Quarry. This face creates a risk of falling material which jeopardizes safety and causes reclamation problems which may result in additional expense. Material extracted from the Rippet Quarry is transported across U.S. Highway 101 to the Johnson processing operation located in the QM Quarry. Rock extracted from the Johnson F-80 Quarry and the Rippet Quarry both comprise part of the aggregate product mix which Johnson sells in the market area at an average price of approximately $6.00 per cubic yard.

The Johnson operation charges the applicant a different price for raw aggregate to be processed at the Johnson Quarry by applicant's machinery depending on whether that raw material is processed by applicant into a finished product for commercial work (approximately $8.70 per cubic yard) or for governmental work (approximately $7.70 per cubic yard). Johnson's pricing policies for aggregate to be incorporated into bonded jobs create a price contingency of $1.00 per cubic year of material which makes bidding difficult.

Bayview has proposed a long-term, high-quality aggregate quarry. The Bayview product cost at the proposed quarry is $4.30 per cubic yard. Aggregate prod-ucts are necessary for a healthy and active economy in Clatsop County. As discussed below at page 9 of our findings, Policy 17 of the County Comprehensive Plan, Goal 4, County-wide Element prevents expansion of non-forest uses under Type II Procedure when such expansion is not substantially confined to the existing site.

The standards set forth in ORS 197.732(1)(c)(B) and OAR 660-04-002(2)(b), and addressed in Issue No. 1 ("reasonably accommodate"), apply only to areas that do not require an exception. Because the Johnson F-80 site and the Rippet Quarry are located in F-80 zones, Policy 17 requires that expansion of the sites can be accomplished only through an exception process. The disturbed area in the Johnson F-80 Quarry is approximately 1 acre. Both the Johnson and the Bayview estimates regarding the amount of rock available at this site contemplate expansion of the site to a minimum of 7.4 acres. We conclude that full use of the Johnson F-80 Quarry requires an exception under Policy 17 of the County-wide Goal 4 element, and the "reasonably accommodate" standard does not apply to the Johnson F-80 site. The extraction area of the Rippet Quarry is approximately 5 acres in size, and the present extraction activity is present on all 5 acres which may be considered a nonconforming use. This nonconforming use is subject to the "reasonably accommodate" standard. However, because the Rippet Quarry is located in a F-80 zone and any expansion beyond 5 acres requires an exception to be taken, both the Rippet Quarry and the Johnson F-80 site will be discussed and analyzed under Issues 5 and 6 below with reference to the alternative "reasons" exception standard concerning significant impacts that would typically result in locating the proposed use at either site.

We find that we must analyze the existing 5-acre Rippet Quarry as a nonconforming use in an F-80 zone under the "reasonably accommodate" standard. Because many of the factors that must be analyzed at Rippet Quarry also are present at the Johnson F-80 site, we will analyze both sites under the "reasonably accommodate" standard. We do this without altering our conclusion that an exception is required to expand the Johnson F-80 site and the Rippet Quarry. The applicant has proposed a long-term extraction facility which would help meet Clatsop County's aggregate demand over an extended period of time (approximately 20 years).

For purposes of our discussion, we have assumed that the rock extracted from the Johnson F-80 zone and the existing Rippet Quarry meets the necessary test specifications. With regard to the amount of material available at the Johnson F-80 site and the existing Rippet Quarry, based on the record before us, we accept the figures provided by Geologist See in conjunction with consultant Mr. Lampi as more credible than the figures of available material offered by the opponents. Messrs. See and Lampi clearly set forth the method-ology by which they arrived at their material figures. The opponents' geologists do not make estimates for these two sites on their own, but apparently rely on the estimates of surveyor Crites. Mr. Crites does not provide methodology which would help us to understand how he arrived at his figures. In addition, we find that Mr. Crites has significantly overestimated the quantity available at the Johnson F-80 site. For Mr. Crites' estimate of 2.2 million cubic yards at the Johnson F-80 site to be accurate, the entire 10.2-acre, F-80 parcel would need to be covered with a rock deposit approximately 103 feet deep considering Mr. Crites' expansion factor. We note that the portion of the 10.2-acre site south of the Necanicum River is a low-lying area. In addition, we note that the Necanicum River runs through the site and will not be available for extraction. In addition, we note that setback along the Necanicum River must be preserved, and a setback is required for the RA-5 zone to the west of the Johnson F-80 site. Subtracting these areas unavailable for extraction from the total 10.2-acre site leaves approximately 7.4 acres available for extraction. To obtain the quantity of the estimate bid by Mr. Crites, this 7.4-acre area would need to be covered with a rock deposit of approximately 153 feet in height considering Mr. Crites' expansion factor. The topography of the area shows that an average of 90 feet of extractable material is available down to the established quarry floor. In addition, we find, as shown in the rebuttal analysis of Mr. Lampi, endorsed by Mr. See, the discrepancy in the opponents' figures is also due to their failure to consider setback requirements, reclamation requirements and overburden limitations. We specifically adopt this rebuttal analysis. For these reasons, we find the quantity estimates provided by the Johnson geologists lack credibility, and we specifically adopt the quantity figures developed by Mr. See in conjunction with Mr. Lampi. In addition to the issue of credibility concerning the Johnson estimate of rock available at the Johnson F-80 and Rippet sites, we note that Geologist Redfern, in his oral testimony before us, indicated that the quantity figures for the Rippet Quarry which he endorsed were dependent upon

"reasonable expansion" of the Rippet Quarry. As we have already discussed above, any such expansion would require an exception to be taken. Accordingly, we find that nonconforming use area at the Rippet Quarry has approximately 244,000 cubic yards of material available for extraction, and the Johnson F-80 site has approximately 300,000 cubic yards available for extraction. Consistent with our demand analysis above, the combined volume of these two quarries which is available for extraction represents only approximately a 2 to 3-1/2 year supply. Because the applicant has proposed a site that we find will produce between 1.5 to 2.0 million cubic yards over a 20 year period, we find that these two sites, whether considered independently or considered together, do not provide a long-term source of supply that has been requested by Bayview given the average County demand for aggregate. Given the lack of supply present at these two pits, we find it is unwise for the County to continue to rely primarily on Johnson to supply the market area with essential aggregate products. Further, we find that economic factors are important considerations in determining whether the Johnson F-80 site and the existing Rippet Quarry can reasonably accommodate the proposed use. Because aggregate material produced from the Johnson operation is priced at approximately $6.00 per cubic yard, it is considerably more expensive than the projected cost of aggregate ($4.30/$4.45 per cubic yard) at the proposed quarry. This differential between the price of the Johnson product and the projected cost of the Bayview product ($1.55-1.70) is reflected in the price consumers in Clatsop County pay for aggregate-based materials and is a sufficient economic reason to conclude that the Johnson sites alone cannot reasonably accommodate the proposed use. In addition, we find other economic factors, which are a part of the Johnson operation, increase the cost of aggregate-based materials to consumers in Clatsop County. Under certain situations, Johnson charges a surcharge for material that is processed by Bayview into a finished product for commercial work (approximately $1.00 per cubic yard), as opposed to raw material that is processed by Bayview into a finished product for government work. We also find that in certain situations, Johnson's pricing policies for aggregate to be incorporated in bonded government jobs create price contingencies of up to $1.00 per cubic yard. We find that such price contingencies prevent the applicant from bidding on projects that are available in the market area. We find these pricing policies have an economic effect on the final price that is paid by the consumer in Clatsop County for products that incorporate aggregate material. We find that at the present time, Johnson is essentially the sole source of supply of high grade aggregate material in the County. We find that the County roadmaster has indicated that increased competition in the aggregate industry would be good for the

County. Because Johnson's sole source position injects an unacceptable level of uncertainty into project bidding and causes price differences for similar kinds of work which are not related to material costs, the sole source of supply from the Johnson operation has negative economic effect on the price of gravel and aggregate products in the County. Because the Johnson operation, which includes the Johnson F-80 site and the Rippet Quarry, does not have enough quantity of material to sustain long-term County demand, because the price of aggregate produced by Johnson is substantially higher than the projected cost of production at the Bayview Quarry, and because Johnson pricing policies have a negative effect on the price consumers in Clatsop County pay for aggregate based products, we conclude that the Rippet Quarry and the Johnson F-80 site, whether considered independently or together, cannot reasonably accommodate the proposed use. Finally, we conclude that, in the event the existing Rippet Quarry and the Johnson F-80 site were deemed to be subject to the "reasonably accommodate" standard, these two sites, considered independently or together, cannot reasonably accommodate the proposed use. Accordingly, we conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 2.

Does substantial evidence exist to support Bayview's cost estimate from the proposed quarry?

We find the following facts in the record relevant to this issue:

Bayview has estimated that it can produce aggregate from the proposed site at a cost of $4.30 per cubic yard in 1985 dollars. This estimate is based on production of relatively expensive types of rock. The average production cost of Bayview for a full range of products to be produced will be less than the cost of these more expensive types of rock. Bayview's expert, Mr. Walter R. Gamble, has analyzed the Bayview estimate. Mr. Gamble is a registered professional engineer with considerable experience in project management and budget supervision in the aggregate industry. Mr. Gamble's conservative projection of Bayview's cost per yard is $4.30 in 1985 dollars or $4.45 per cubic yard in 1987 dollars. This $4.30/$4.45 cost figure takes into account overhead costs, including a loader and loader operator, all excavation costs at the site (including drilling, blasting, overburden removal and equipment wear and tear), and all costs of compliance with all

relevant local, state and federal regulations. Johnson is slightly closer to destinations north of the Cannon Beach junction. Bayview is slightly closer to destinations south of the Cannon Beach junction.

Bayview has provided expert testimony concerning its $4.30/$4.45 cost figure for aggregate to be produced at the proposed quarry. Johnson has raised contingencies (including loading costs and environmental compliance costs) which it claims negate the Bayview cost estimate. However, Bayview's expert took these production contingencies into account when examining the cost of material to be produced at the Bayview Quarry and verified the cost estimate by three separate methods. Therefore, we accept the Bayview cost figure. Johnson raises the issue of a transportation cost advantage it might have for materials transported to the north of the Johnson Quarry. We find that this transportation cost is not relevant to the verified $4.30 /$4.45 production cost at the proposed quarry. The crucial inquiry is: given Johnson's $6.00 per cubic yard price, can Bayview justify its proposed cost of $4.30/$4.45 per cubic yard? We find the $4.30/$4.45 figure to be amply supported by Bayview's expert testimony. We also note that if transportation costs are relevant to this narrow Issue No. 2, Bayview enjoys a slight transportation cost advantage for material transported south of the Cannon Beach junction. We conclude that Bayview's projected average cost for aggregate at the proposed quarry is $4.30/$4.45 per yard. We further conclude that this figure is supported by expert testimony which we accept. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 3.

Do the Ordway and Darling Quarries have sufficient rock quantity and quality to support the proposed quarry?

We find the following facts in the record relevant to this issue:

The Darling Quarry (04-0038) is an existing pit located on 2.5 acres in an F-80 zone (see Exhibit A, attached) and contains approximately 100,000 cubic yards of material available for excavation. Rock extracted from the Darling Quarry received marginal test results on both the coarse and fine clay lumps and friable particles tests (T-112-C; T-112-F). Marginally acceptable results in these tests can be of extreme detriment to asphalt and concrete products. Aggregate production involving a rock source which has marginal results on these tests can increase costs through added processes and/or

ss and waste of time adjusting mixtures and designs. Material from the Darling Quarry was recently rejected by the Oregon Department of Transportation, Highway Division, because it did not meet specification. The Ordway Quarry is an existing pit located on approximately 3 acres in an AF-20 zone (see attached Exhibits A and D) and has an available quantity of material for extraction of approximately 160,000 cubic yards. Rock from the Ordway Quarry failed the fine sodium sulfate or magnesium sulfate test, failed both the coarse and fine clay lumps and friable particles tests and failed the sand equivalency test. The sodium sulfate or magnesium sulfate tests, the clay lumps and friable particles tests and the sand equivalency test are standard tests which aggregate must pass to be used in Oregon State Highway projects. These standards are widely used as an indication of aggregate's fitness for a variety of projects. The use proposed by the applicant is a long-term aggregate extraction source to help meet Clatsop County's aggregate demand over an extended period of time. The applicant's proposed use requires that the rock exceed testing standards to insure that production from the site will consistently meet necessary contract specifications. As set forth in the discussion under Issue No. 1 above, the average annual demand for aggregate material in Clatsop County is between 161,000 and 250,000 cubic yards.

Because of marginal test results on rock material taken from the Darling Quarry, we find that the site does not present assurances that average production from the site will consistently meet necessary contract specifications. In addition, because the Darling site contains only approximately 100,000 cubic yards of material (less than a 1-year supply for Clatsop County demand figures), we find that it does not present a viable alternative for the long-term use (approximately 20 years) proposed by the applicant. Because the Ordway Quarry failed several rock quality tests, we find that the average production from the site will not consistently meet necessary contract specifications. In addition, because we find the Ordway Quarry contains only an approximate 8 to 12 month supply, it does not present a long-term source as has been proposed by the applicant. We also find that because the Ordway and Darling Quarries, taken together, present less than a 2-year supply of aggregate material, these two quarries, considered together, do not present a long-term source such as that proposed by the applicant. We conclude that the Darling and Ordway Quarries do not have sufficient rock quantity and do not have sufficient rock quality to support the proposed quarry. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 4.

Do the five alternative sites listed by the County, Cavenham Highway 101 (04-0028), Halvorsen Clay Borrow Pit (04-0032), Cavenham Pit Run (04-0036), McEwen Clay Borrow Pit (04-0048), and Stevens River Borrow Pit (04-0049), have sufficient quantity and quality of rock to support the proposed quarry?

We find the following facts in the record relevant to this issue:

Each of these five sites is described in attached Exhibits A and D.

Cavenham Highway 101 Borrow Pit (04-0028) has no commercial quality of rock. Cavenham Pit Run Borrow Pit (04-0036) has no commercial quality of rock. Halvorsen Clay Borrow Pit (04-0032) is an old clay borrow source that was used for fill to complete dike construction along the Necanicum River. Cavenham, the owner of the property, does not consider this site to be a potential rock quarry and has forfeited access rights to the road which serves the site. McEwen Clay Borrow Pit (04-0048) has no commercial quality of rock. Stevens River Rock Borrow Pit (04-0049) contains 45,000 cubic yards of material for extraction. The applicant has proposed a long-term aggregate extraction facility which would help meet Clatsop County's aggregate demand over an extended period of time. The central component of that long-term use is the availability of steady supply of Oregon Department of Transportation ("ODOT") specification rock over a 20 year period.

We find that because the material previously excavated from the Halvorsen Clay Borrow Pit was used as fill to complete dike construction, commercial quality rock is not available at that site. We further find that this pit must be small in size, because it cannot be identified from aerial photos. We find that because no commercial quality of rock exists at the Cavenham Highway 101 Pit, the Halvorsen Clay Borrow Pit and the Cavenham Pit Run Borrow Pit, these sites cannot be used for the proposed use. We further find that because no commercial quality of rock exists at these sites, it is irrelevant how much quantity of rock is available at any of these sites. We find that because the proposed use requires both sufficient rock quantity and rock quality, the presence of quality rock alone, without the necessary quantity, or the presence of quantity of rock alone, without the necessary quality, is insufficient to support the proposed use. As discussed in

Issue No. 1 above (which discussion is incorporated herein by reference), the County-wide demand for rock in Clatsop County is approximately 161,000 to 250,000 cubic yards. We find that the Stevens River Rock Borrow Pit contains less than a 1/3-year supply of material. We find that, even if the quantity of rock available at the Stevens River Rock Borrow Pit is added to the quantity of rock available at the Darling and Ordway Quarries, less than a 2-year supply is available at these 3 sites. We do not mean to imply by adding the Darling and Ordway Quarries in our quantity calculations that we find Darling or Ordway rock to be of adequate quality. To the contrary, we find (as discussed in Issue No. 3 above) that Darling rock is of marginal quality and that Ordway rock is of insufficient quality. We include Ordway rock in our quantity calculation here only to illustrate our conclusion that all these sites, considered together, do not present sufficient quantity to support the proposed use. We conclude that these 5 sites, even considered in conjunction with the Ordway and Darling Quarries, do not present sufficient rock quantity to support the proposed quarry. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue Nos. 5 and 6.

What are the characteristics of the alternative sites that require an exception?

What are the impacts that would "typically" result from locating the proposed quarry at the exception sites, and are these impacts less severe than location of the Quarry at the Bayview site?

We find that the characteristics of the alternative sites are fully described in the geological assessment prepared by Paul D. See, dated July 10, 1987, the Bayview Transit Mix evaluation report, dated July, 1987, prepared by Don Lampi (as updated with supplement dated August, 1987), and the evaluation report of David Evans & Associates (as updated with supplement dated August, 1987). The characterics of the eight sites, as well as the Bayview site, discussed in the LUBA opinion are summarized in Exhibits D and E of these findings. The locations of these alternatives sites are set forth on Exhibit A. We find that these summaries accurately describe the characteristics of each of these eight sites and the Bayview site. We incorporate the characteristics of each of those sites contained in the summary, as well as the information contained in the three reports, by reference as though fully set forth herein. We decline to compare the typical impacts, including environmental, social, economic and energy consequences, of the

Bayview site with the five sites listed in our discussion of Issue No. 4 above, as these sites lack sufficient aggregate resources to support the proposed site. It would be an empty exercise for this Board to describe the characteristics and then weigh typical impacts, including environmental, social, economic and energy consequences, when, in fact, a supervening characteristic (namely lack of quality and quantity of rock) prevents them from being rationally considered as a site for the proposed use. Without adequate rock quality and quantity, a site has no economic value as an aggregate source, and any attempt to locate the proposed use at these sites would have fatal economic impacts. Location of the use at the Bayview site, given the minimal negative impacts which are described under Issues Nos. 7 and 8 below, causes an inherently less severe impact than locating the use at these sites where the use could not be successfully or economically operated. Given the lack of rock quantity and quality of the five sites mentioned in the LUBA remand opinion, Issues Nos. 5 and 6, concerning the characteristics of the sites and the comparative impact of using each of the sites instead of the Bayview site, have no relevancy. We conclude that because there is insufficient rock or no rock at each of these five sites, the characteristics of these sites (lack of rock quality and quantity) dictate typical impacts.

The Johnson QM site (040011) is in a Quarry and Mining zone that does not require an exception for continued operation. Accordingly, we conclude that Issues Nos. 5 and 6 do not apply to the Johnson QM Quarry.

The Darling and Ordway Quarries are existing non-conforming uses. As such, they do not require an exception for continued use. However, as both these quarries are located in forest zones (F-80 and AF-20), any expansion of these quarries to meet the large scale use proposed by the applicant would require an exception under Policy 17 of the Goal 4 County-wide Element of the Comprehensive Plan. Any such expansion of these quarries would fall under this standard. However, as discussed in Issue No. 3 above, we have concluded that a primary characteristic of both the Darling and Ordway Quarries is their lack of large quantities of rock. In addition, under Issue No. 3 above, we concluded that a primary characteristic of the Darling Quarry is its marginal rock quality, and a primary characteristic of the Ordway Quarry is its lack of quality rock. Accordingly, consistent with our analysis above, we decline to analyze the potential expansion of these quarries in terms of typical impacts (such as environmental, social, economic and energy) when a supervening characteristic present at these sites (namely, lack of quality and quantity of rock) prevents them

from being rationally considered as a site for the proposed use. Without adequate rock quantity and quality, an attempt to locate the proposed use at these sites would not be economically sound. Location of the use at the Bayview site, given the minimal negative impacts which are described in Issues Nos. 7 and 8 below, causes inherently less severe impacts than locating the use at these two sites wnere the use could not be successfully or economically operated.

With respect to the Rippet Quarry and the Johnson F-80 Quarry, we make the following findings of fact and conclusions consistent with our discussion under Issue No. 1, above: The existing 5-acre area of the Rippet Quarry is considered a nonconforming use in a F-80 zone. Under Policy 17 of the Clatsop County Comprehensive Plan, Goal 4, County-wide Element, expansion beyond this 5-acre nonconforming use area requires an exception. Extraction has occurred on approximately 1 acre of the 10.2 acre Johnson F-80 parcel. Any expansion on the site requires an exception to be taken pursuant to Policy 17 of Goal 4 of the County-wide Element of the Clatsop County Comprehensive Plan.

We reach these findings and conclusions as follows. With respect to the Johnson F-80 site, we find that extraction activity on the separate Johnson QM parcel has continued for a number of years. The Johnson QM Quarry has been operated and expanded in a southeasterly direction and in recent years has crossed over into the adjoining Johnson F-80 parcel. No land use approvals have been requested or obtained from the County for the operations on the Johnson F-80 parcel. Comprehensive land use controls were established in Clatsop County in 1980 and provided standards and limits on quarrying uses. Aerial photos in the record attached as Exhibit No. 2 to the July 1987 report of Mr. Lampi demonstrate that in 1980, at the time extensive land use controls were imposed on quarry operations, the Johnson extraction operation was still located within the Johnson QM parcel and had <u>not</u> entered onto the Johnson F-80 parcel. As is shown in the aerial photos, subsequent to 1980, the Johnson extraction operation crossed onto the Johnson F-80 parcel. At this time, it had no land use approval and was an illegal operation under the zoning ordinance. Therefore, we have concluded that the Johnson operation on the Johnson F-80 parcel is an existing use, but not a nonconforming use as it was unlawfully established. We further find and conclude that any expansion of this area requires an exception. With respect to the existing Rippet site, we find that extraction activity has continued on the site for a number of years. The Rippet Quarry has been operated and expanded in a northwesterly direction. Under State law, the operators of the Rippet Quarry are

required to maintain a reclamation plan. This reclamation plan includes the active area of the quarry and defines the extent and limit of the quarry. In 1974, Johnson filed a reclamation plan with DOGAMI which delineated the quarry area. This plan was updated in 1976. In 1980, the active area at Rippet Quarry under the 1976 reclamation plan was 5.8 acres. The County enacted comprehensive zoning in 1980, which regulated and proscribed limits for quarry operators. In 1984, Johnson filed a new reclamation plan which updated and increased the disturbance area. No application was made to Clatsop County to obtain zoning approval for the increased size of the Rippet Quarry. We find and conclude that at the time of the imposition of zoning controls in 1980, the 1976 reclamation plan delineated the Rippet Quarry and defined the nonconforming use portion of the quarry. Significant expansion beyond this defined quarry limit requires an exception to be taken. In addition, we note that Cavenham had expressed a desire that future expansion at Rippet Quarry occur on the backside of the ridge above the existing quarry. Any expansion into this area would be outside the nonconforming use area and would require an exception. Our discussion below is directed to any existing or propsed expansion at the Rippet Quarry beyond the nonconforming use boundary established in the 1976 reclamation plan.

Economic Characteristics and Impacts.

The Bayview, Rippet expansion and Johnson F-80 sites all contain rock which meets the minimum required quality specifications and are close to the Seaside-Warrenton market area. However, Bayview has certain economic characteristics which provide distinct advantages over the Rippet and Johnson F-80 sites. First, the County heard testimony from the applicant's geologist, Paul D. See, and the applicant's consultant, Don Lampi, that the Bayview site contains approximately 2.4 to 2.5 million cubic yards of available material. We also heard testimony from the Johnson's consultant, Roger Redfern, that the Bayview site contains as little as 300,000 to 600,000 cubic yards, and from Johnson's geologist, H. G. Schlicker, that geologic features of the Bayview site would yield lesser quantities of material than those quantities identified by the applicant's experts. We find, based on the record before us, that Consultant Redfern has underestimated the quantity of available material at the Bayview site, but we also believe that the applicant's experts have overestimated the quantity of material available at the site. We find that the quantity of available material lies somewhere between the extremes of 600,000 cubic yards and 2.5 million cubic yards, and we believe that

such quantity probably lies between 1.5 and 2.0 million cubic yards. We reach and adopt this figure based on our finding that applicant's site, in places, has overburden, and that production of clean rock may be difficult at certain locations within the site. We note that the record is not as precise as it might be on this issue, but we find that a precise quantification is not necessary because the Bayview site clearly contains a significant quantity of commercial quality rock and because the need for a high quality site with a significant quantity of rock, such as the Bayview site, has been clearly demonstrated. This is a sufficient amount to meet the projected County demand for a long period of time. The existing Rippet Quarry contains approximately 250,000 cubic yards of available material, with some additional rock available if expansion is permitted. The Johnson F-80 site contains approximately 300,000 cubic yards of material. Even if the Johnson F-80 and the nonconforming Rippet Quarries are considered together, the available material is much smaller than the Bayview Quarry. In addition, average cost of material produced at the Bayview Quarry is projected to be $4.30/$4.45 per cubic yard. Whereas, the price of material produced by the Johnson operation (from the Rippet Quarry and the Johnson F-80 site) averages $6.00 per cubic yard. The Bayview site has a large eoonomic advantage over the other two sites. Further, the existing Rippet Quarry and the Johnson F-80 Quarry essentially provide Johnson with a sole source monopoly in the market. As described in our discussion under Issue

No. 1 above, certain price and supply policies pursued by the Johnson operation create monopoly-like characteristics in the market. The County roadmaster is on record favoring the Bayview site to increase competition in the market area and indicated he was unable to obtain rock from Johnson because of other Johnson commitments. The Bayview site would have a positive economic impact by creating an alternative site for aggregate materials in the market area. This alternative site would have the additional benefit of decreasing the need for rock to be imported into Clatsop County. The Rippet Quarry has a possible overburden problem and a possible high-face reclamation problem. These are potential economic impacts that are not faced by the Bayview site. Considering all these economic factors together, we conclude that the long-term economic consequences resulting from the use at the Bayview site are not significantly more adverse than would typically result from the same proposal being located at the Rippet Quarry or the Johnson F-80 site.

Environmental Characteristics and Impacts.

All three of these sites have room for sediment ponds, are located in elk habitat and have a stream nearby or on the premises. The projected 100-year flood event for the Bayview extraction site can be properly contained in a settlement pond 1.5 acres by 2.8 feet deep. The preliminary Bayview site layout reserves approximately 2 to 3 acres for sedimentation ponds which allows sufficient flexibility to meet siting and construction contingencies. The Bayview extraction site has no timber approaching marketable size. Whereas, the Rippet and Johnson F-80 sites contain larger trees. We find that Johnson geologists claim that landslides are a potential problem at the Bayview site. They point to a fracture on the southwest side of the Bayview site as evidence of landslide potential. However, we find that Geologist See attributes the fracture to man-caused problems during road development. See concludes that the underlying geologist is stable. Of particular importance to this analysis is the fact that tree stumps in the original slope protrude through the man-deposited material without distortion. We find this fact, together with the See analysis of the soil types present at the Bayview site, persuade us that the Bayview geology is stable. In addition, we find it suspect that Geologist Redfern refers to "minor slumping" at the Rippet Quarry and Geologist Schlicker dismisses landslides at the Rippet Quarry when 1984 aerial photos clearly show a large landslide at Rippet Quarry. For these reasons, we place greater credibility in Mr. See's analysis and conclude that the geology at the Bayview site is stable and landslides are not a problem. The geology is also stable at the Johnson F-80

site, but the Rippet Quarry has a history of landslide problems. The Bayview Quarry is not visible from surrounding residences or from U.S. Highway 101 or 26. To the contrary, the Rippet Quarry is clearly visible from both Highways 101 and 26. The Johnson F-80 Quarry is visible from U.S. Highway 101. As described under Issue No. 7 below, the projected noise levels from the Bayview site meet applicable DEQ levels. As the opponents did not provide a sound evaluation of their own operation, it is unknown whether or not operations at the Rippet Quarry and the Johnson F-80 Quarry comply with DEQ standards. Areas which contain vegetation which may be found in wetlands is located near the Bayview site along adjacent Square Creek. No areas described as "wetland" have been identified at the Rippet or Johnson F-80 Quarries. A specific condition, which is made a part of these findings, will protect wetland values at the Bayview site. Geologist Redfern raises questions about stream erosion due to meandering at the Bayview site. However, we find, as pointed out by Geologist See, that Geologist Redfern's analysis is a "unique departure from conventional understanding of stream mechanics." We find that the fact that a river meanders is indicative of long-term stability. We further find that a variety of measures, including riprap and revegetation, are available to control any potential erosion. Finally, the Bayview extraction area is located approximately 2,800 feet from the nearest residence. The Rippet Quarry has two houses within 300 feet, and the Johnson Quarry has seven houses within 1,000 feet. After weighing these characteristics and impacts, we find that aggregate operations at the Bayview site have advantages related to timber, stable geology and visibility. A potential disadvantage at the Bayview site (areas that may contain vegetation which may be found in wetlands) has been addressed and mitigated by a condition which is part of this approval. On the whole, we conclude that the long-term environmental consequences resulting from aggregate extraction use at the proposed site, with measures designed to reduce adverse impacts, are not significantly more adverse than would typically result from the same proposal being located in either the Rippet Quarry or the Johnson F-80 site.

Social Characteristics and Impacts.

We find that the Bayview extraction site is located 2,800 feet from the nearest residence. The Rippet Quarry has two homes within 300 feet, and the Johnson F-80 Quarry has seven homes within 1,000 feet. There is a social advantage in having the extraction operation located farther from existing homes in that noise is reduced. As described under Issue No. 7 below, the Bayview site meets DEQ noise levels. No information is available concerning the noise levels at the

Johnson F-80 and Rippet Quarries. We find that the Bayview site enjoys reduced social impacts in that it cannot be seen from the adjoining highways or residences. Whereas the Rippet and Johnson F-80 Quarries are clearly visible from adjoining homes and highways. We find that land use compliance at the Rippet Quarry and the Johnson F-80 Quarry is unclear. The Bayview Quarry enjoys a social advantage as it has applied for a land use permit before extracting aggregate in a forest zone. We also find that the Rippet Quarry has potential problems with reclamation which may make it difficult to reclaim the slope to reduce its visibility. Bayview has reduced social impacts in that its access to Highway 101 will be along a newly-aligned portion of that road just south of the existing Highway 26 junction. To the contrary, truck traffic hauling unprocessed aggregate from the Rippet Quarry must cross U.S. Highway 101 on a curve to take the material for processing to the Johnson QM Quarry site. Access from the Rippet Quarry and to the Johnson F-80 site is on a two-lane portion of U.S. Highway 101 near a curve. Blasting noise and vibration may affect nearby residences. The Bayview site may have a slight social advantage in that blasting may not be needed at the site. Whereas, blasting is necessary at the Rippet and Johnson Quarries. We also find that Bayview has presented an extraction plan which will maintain a lip of rock between the Bayview extraction area and nearby residences to the north and east. This reduces social impacts for the Bayview Quarry, as opposed to the Rippet Quarry and Johnson F-80 site whose extraction activities directly face residential uses. After weighing the relative advantages and disadvantages of the sites, we conclude that the long-term social consequences resulting from aggregate extraction at the Bayview site (with measures designed to reduce adverse setbacks) are not significantly more adverse than what would typically result in the same proposal being located at either the Rippet or Johnson F-80 Quarry.

Energy Characteristics and Impacts.

All three areas are a short distance from the Cannon Beach junction and are located close to the market area. Mechanical extraction, using similar equipment, will be required at all three sites. The Rippet Quarry has a potential disadvantage due to the overburden problems at the site which may require additional energy during the handling of material. Weighing these characteristics, we conclude that the energy consequences present at each of the three sites are similar. Accordingly, we conclude that the long-term energy consequences resulting from aggregate extraction at the Bayview site are not significantly more adverse than would typically result from the same proposal being located at the Rippet or Johnson F-80 site.

Issue No. 7.

Is the proposed quarry "compatible" with the adjacent residential uses?

We find the following facts in the record relevant to this issue:

Several houses are located within approximately 3,000 feet of the proposed extraction area. The closest residence belongs to Jensen and is located approximately 2,800 feet from the extraction area and approximately 800 feet from the proposed stockpile. The Jensen residence is surrounded by trees as are the other residences in the vicinity. Neither the extraction area nor the stockpile area is visible from any of the residences. "Quiet Area," as used by DEQ, is land designated by the Environmental Quality Commission where quiet is of an extraordinary significance to serve a public need, such as a wilderness area, a national park, or a state park. The area surrounding the Jensen home has not been designated quiet area by the Environmental Quality Commission. The existing rock quarry at the Bayview site has been frequently used intermittently during the last 20 years, with the last use being in 1986. The applicable DEQ noise standards for the general area near the Jensen residence are as follows: L(1) 75 dBA, L(10) 60 dBA, and L(50) 55 dBA. The crusher or process plant proposed by applicant is projected to generate the following levels of noise as measured at the Jensen residence: L(1) 40 dBA, L(10) 36 dBA, and L(50) 32 dBA. The applicable noise levels generated by the asphalt batch plant which may accompany the proposed operation as measured at the Jensen residences projected to be: L(1) 37 dBA, L(10) 33 dBA, and L(50) 29 dBA. Given the applicant's extraction plan, the aggregate extraction activity proposed by applicant is projected to generate the following levels of noise as measured at the Jensen residence: L(1) 44 dBA, L(10) 44 dBA, and L(50) 43 dba. The opponents' sound expert projected that higher levels of noise from the extraction operation would be received at the Jensen residence. Mr. Duble, the opponents' sound expert, did not take into consideration the extraction plan presented by the applicant in which a lip in the form of an earth berm will be maintained between the drilling and extracting operation and the Jensen residence. In addition, the mouth of the excavation area at the Bayview site will be oriented away from the residences to the southeast. Further, we find that Mr. Duble assumed that two bulldozers and two front-end loaders would be working at the extraction area when the actual proposed operation at the Bayview site will include only one bulldozer. The design feature of the extraction plan will significantly reduce

projected sound levels to be received at the Jensen residence. The opponents' sound expert also projected a sound level of 98 dba from hypothetical rock drilling equipment which would be located at the extraction site. The Bayview sound expert, Mr. Standlee, measured the actual drilling equipment proposed to be used at the site. This equipment generates only 90 dBA. In addition, the mouth of the excavation area at the Bayview site will be oriented away from the residences to the southeast. Further, we find that Mr. Duble assumed that two bulldozers and two front-end loaders would be working at the extraction area when the actual proposed operation at the Bayview site will include only one bulldozer. For these reasons, we adopt the noise figures provided by Mr. Standlee. Thus, we find the sum of the projected noise levels at the Jensen residence of all activity at the Bayview site to be L(1) 46, L(10) 45, and L(50) 44, well within the DEQ standards. Bayview's trucks are regularly maintained (including muffler inspection) at the Bayview shop in Gearhart and meet applicable licensing requirements. Bayview trucks will not use Jake brakes on the roads near the Jensen residence and will maintain reduced speeds to minimize vibration. Roads to the quarry will be maintained in a dust-free fashion. The actual crusher, which is considered for use at the Bayview site, has current DEQ operating permits. Windrose data prepared by the Office of the State Climatologist indicates that prevailing winds will carry any dust generated at the Bayview site away from nearby residences. The Jensen residence and nearby residences are within approximately 1,500 feet of U.S. Highway 101 and are approximately 1,000 feet from a bulk oil facility. Large trucks frequently travel U.S. Highway 101, and large trucks call at the bulk oil facility. The extraction plan proposed by Bayview will minimize blasting impacts by maintaining a lip on the existing hillside between the blasting operation and any residence to the east. Blasting may not be necessary at the proposed quarry, and, in any event, blasting is an infrequent activity at the quarry. Extraction operations at the quarry will be confined between the hours of 7:00 a.m. and 10:00 p.m.

We find that impacts on the Jensen residence will be very similar to the impacts on the other residences in the area. Because the Jensen residence is the closest to the proposed extraction site, the impacts are analyzed with reference to the Jensen's residence as it will be the one most likely to receive adverse effects, if any. We note that compatibility as referred to in ORS 197.732(b), and OAR 660-04-020(d) is not intended as an absolute term meaning no interference or adverse impacts of any type may affect adjacent uses. Opponents' sound expert, Mr. Duble, concludes that the potential noise generated by the crusher/processing plant and a potential asphalt batch plant will not exceed applicable DEQ standards at the site.

In addition, Mr. Duble concludes that the summation of the projected L(1) sound levels for the extraction activity at the proposed site will not exceed the applicable sound levels. Bayview's sound expert, Mr. Standlee, agrees with these conclusions. Mr. Duble, however, indicated that the projected L(10) and L(50) noise levels generated by the extraction activity would exceed the applicable DEQ standard. Because we find that Mr. Duble did not consider the noise-inhibiting design features contained in Bayview's extraction plan, the orientation of the operation away from residences, the appropriate extraction equipment or the appropriate noise level for extraction equipment, we find that Mr. Duble's conclusions concerning the L(10) and L(50) projected noise levels are incorrect. Data submitted by Bayview's sound expert indicates that, considering all the factors that would attenuate sound, noise generated by the applicant's extraction operation is well below the applicable DEQ standard. We also conclude from examining the data of Messrs. Duble and Standlee, that even if the applicable DEQ noise standard were deemed to be 10 dBA over ambient levels (which we specifically conclude is not the case), all facets of the proposed use would meet that standard. Because we find that roads will be maintained in a dust-free fashion, the Bayview crusher will meet all DEQ dust standards, and prevailing winds will carry dust away from the Jensen residence, we find that no significant dust impact will occur at the Jensen residence as a result of the applicant's operations. We find that vibration might occur at the Jensen residence because of two sources: blasting impulses and truck traffic. Because we find that Jensen is approximately 1,500 feet from the truck traffic on U.S. Highway 101 and 1,000 feet from truck traffic at a commercial oil facility and because Bayview will reduce speed of its trucks to reduce vibration, we find applicant's truck traffic will result in no substantial increase in truck vibration. Because we find that blasting is not a frequent occurence, because the applicant's extraction plan will minimize the effect of blasting and because Jensen would receive only slight vibration from any blasting impulse, we find that any impact from blasting will be minimal at the Jensen residence. We further find that extraction operation at the Bayview site will be limited from 7:00 a.m. to 10:00 p.m. This will serve to make the operation more compatible with the adjacent residential uses. We find that because the site is not visible from any of the residences, because noise will be within acceptable limits, because the gravel quarry on the site is a long-term existing use and because aggregate activity will be located more than 600 feet away, property values of the nearby residences will not suffer as a result of locating the proposed use at the Bayview site. Because we find that noise will be within acceptable limits, dust will meet DEQ standards and be

taken away by prevailing winds, vibrations will be similar to existing truck traffic and blasting vibration will be slight and infrequent, we conclude the proposed use is compatible with adjacent residential uses. We further conclude that this issue remanded by LUBA is resolved in favor of allowing the proposed use.

Issue No. 8.

What are the economic, social, environmental and energy consequences to Goal 5 resources of allowing processing of crushed rock at the proposed site?

We find the following facts on the record relevant to this issue:

Bayview has proposed rock extraction and stockpiling operations that are 30 acres in total. Twenty acres of this area will be devoted to rock extraction, and approximately 10 acres will be devoted to a stockpile operation. The proposed use is designed to produce quality rock for a 20-year period. The rock from the pit will be produced at a cost below the average price from presently existing sources, including Johnson and imported rock from outside the County. An existing quarry is present at the proposed extraction site. The quarry has been used on numerous occasions in the past, and approximately 100,000 cubic yards of aggregate material has been removed from the site. No merchantable timber exists on the extraction site or on approximately 3 acres of the stockpile site. Seven acres of the stockpile site contains trees that are approximately 30 feet in height. The stockpile area and the extraction area are distinct areas and are separated by forest uses which will be maintained. The two areas are completely surrounded by forest land. Areas described as "wetland" have been briefly discussed by the opponents during this remand proceeding. We find, as described in the site analysis of the area by Mr. Lampi, that vegetation which might be found in wetland is primarily contiguous with Square Creek. One pocket containing vegetation which might be found in wetlands is located near the extraction area. We find that no significant wetlands, as indicated on Department of the Interior maps or in Clatsop County Goal 5 or Goal 17 inventories, are located at the Bayview site. We find that the extent of area which contains vegetation which might be found in wetlands is delineated on the map as attached to Mr. Lampi's August 25, 1987 report, and we adopt this description of the area. We note that our own staff has reported that

Mr. Redfern's wetland contention is without merit. The Bayview Quarry site is located in major big game habitat. No barriers will be constructed during the operation of the quarry which would affect big game migration. Square Creek, a perennial stream, runs adjacent to the extraction area. It is considered fish habitat as it has a summer flow of .5 cubic foot per second. Up to nine salmon have been seen in the creek during winter months. Salmonoid fish fry have been released into Square Creek by STEP volunteers. Square Creek is adequate fish habitat but not excellent or ideal habitat. Bayview has provided a sediment control plan which is designed to handle a 100-year flood event. In January of 1986, the Oregon Department of Fish and Wildlife suggested conditions for a plan to reduce impacts on Square Creek. After reviewing the Bayview sediment control plan, an Oregon Department of Fish and Wildlife biologist described the plan as a good plan. Other facts concerning the Bayview site contained in Parts I through IV of these findings are incorporated herein by reference. Identified resources at the Bayview site are elk, anadromous fish, wetlands, trees and aggregate.

Economic Factors.

A. Trees. Loss of overburden due to prior operations at the existing aggregate quarry has prevented the growth of trees over a large portion of the extraction site. The remainder of the extraction area was recently clear-cut and now supports very young trees. There will be no economic loss of trees approaching market value on the extraction area. The stockpile area contains 7 acres of trees approaching marketable size. In the short term, aggregate operations on the site will cause the loss of these trees. Cumulative impact of tree loss should be minimized by development of this quarry as it will present a long-term quarry site and may alleviate the need for development of other aggregate sites in forest lands. In the short term, forest economic uses of the 30-acre area will be replaced by mining uses. In the long term, the reclamation plan for the quarry area will insure that the majority of the area is returned to forestry uses.

B. Elk and Fish. Hunting for elk and the provision of household meat produces some economic value from this habitat parcel. The applicant intends to construct no barriers on the site, and development of the quarry does not prevent elk from coexisting on this site. A small temporary loss of habitat does not necessarily entail a loss of elk. Elk migrate freely and can take advantage of the surrounding forest area. As with timber, development of this quarry may result in less cumulative loss of elk habitat, because the large capacity of

this quarry may limit the need for other smaller pits on forest land. Adjacent Square Creek provides habitat for up to nine salmon and provides an area for STEP volunteers to release salmonoid fry. Square Creek flows between the extraction and stockpile areas. It has an August flow of .5 cubic feet per second ("CFS"). It passes under the access road via a permanent culvert. These are not uses of the area which provide specific economic benefits. However, enhancement efforts on small streams may help restore salmon runs which would provide economic benefit. The applicant will need variable amounts of water, up to 3,000 gallons of water per day for dust control, and possibly up to 2,000 gallons per day for other uses. Possible sources are Square Creek, on-site sump collection and hauling water to the site. Because of low summer flows in Square Creek and the impact of any further activities on fish habitat, it may not be possible to take this water from Square Creek. A condition of approval is that the State Water Resources Department establish a minimum stream flow for Square Creek, and removal in excess thereof is prohibited. Applicant currently owns a 4,000-gallon water truck and intends to place a 10,000-gallon tank at the site. If the water must be hauled to the site, the cost is approximately 6.3 cents a cubic yard of rock product, a minimal effect on overall costs. Cut-off ditches, berms, erosion-control mechanisms and sediment-trapping ponds at both the extraction area and the stockpile site will be constructed or placed to handle a 100-year storm event. The ponds will be draped with filter fabric to insure sediment is trapped. The applicant's sediment control plans are designed to insure that any economic gains associated with fish can coexist at the same time if rock is extracted at this site.

C. Wetlands. Areas near the proposed extraction site that contain vegetation which might be found in wetlands are not inventoried in the County-wide Goal 5 Element. These areas also do not appear on the U.S. Department of the Interior National Wetland Inventory maps used for establishing significant wetlands in the Clatsop County Comprehensive Plan. No part of the Bayview site contains wetlands identified in the Comprehensive Plan. Wetlands can have an economic value as furbearing animal and wetland bird habitats, but there is no evidence of furbearing animals or wetland birds at this site. Wetlands can also have marginal economical benefits as flood buffers. However, the areas near the extraction area that contain vegetation which might be found in wetlands are too small to be needed as flood protection. As with elk and fish, the conditions imposed by Clatsop County provide the necessary steps to insure that wetland habitat will be protected to preserve any economic value that may be assigned to it.

D. Aggregate. Aggregate is a necessary commodity for the economy of Clatsop County. This particular site has enormous economic value because of the quality of rock and quantity of rock that are present. As recognized in the Clatsop County Comprehensive Plan, rock sources are scarce in Clatsop County and should be developed where feasible. Use of this site for aggregate extraction would provide high-quality rock for a number of years at a favorable price in Clatsop County markets. Development of this quarry will increase competition in the market area and may lessen the need for imported aggregate products in Clatsop County. Development of the site may also create four jobs. As noted in Parts I-V of these findings, other aggregate pits in the area have limited quantity and quality of material available for extraction. To not use this site would have significant negative economic impacts, including continued higher aggregate prices and uncertain future supplies.

Social Impacts.

A. Trees. An adequate timber base is important to preserve County jobs and to provide areas for recreation. Because the Bayview extraction area has recently been clear-cut and the area supports an existing aggregate pit, this area is not an ideal choice for timber production or forest recreation. Loss of seven acres of timber on the stockpile site will reduce the County timber base. Clatsop County has approximately 474,000 acres of timberland. The reduction in timber base caused by Bayview is a miniscule fraction of the amount of timber available in Clatsop County, and development of this site may prevent a larger cumulative loss of timber due to reduced need for smaller aggregate pits in other forest areas. In addition, nearly all the alternative sites would entail loss of productive forest while aggregate is being extracted. The reclamation plan for the Bayview site insures that the area will be returned to forest uses after extraction has stopped.

B. Elk and Fish. Although the land is private, public access has not been generally limited by the landowner. Access to the extraction and stockpile areas might be restricted if operations are ongoing. This could, in turn, limit elk hunting. However, as stated above, although use of this area for an extraction site may affect habitat, such use does not necessarily cause a decrease in the number of elk. Indiscriminate operation on this site could cause problems to fish habitat and the success of the STEP program. However, the sediment control plan proposed by the applicant mitigates any potential negative social effects in this regard.

C. Wetlands. Social and recreational values are sometimes assigned to wetlands if they are large enough to support animal populations. The small size of the area associated with the site on which vegetation might be found in wetlands would limit any such recreational value. Further, it is unlikely that the areas which might contain vegetation found in wetlands would provide large social value, as they were discovered only at the very end of this remand proceeding. In addition, the areas are small and directly adjacent to an existing forest gravel pit which limits their recreational value.

D. Aggregate. One of the principal reasons for developing this quarry is to eliminate reliance on the sole source of aggregate in the County which provides relatively high-priced materials to consumers. Unlike existing commercially operated sites considered in this proceeding, this proposed site is well away from people, being approximately 2,800 feet from the nearest residence. The extraction plan provided by Bayview indicates that use of this area for rock be handled in such a manner to minimize any effects, including dust and noise, on nearby residents. The evidence produced in this proceeding indicates that other rock sources in the County have limited life spans, and, eventually, other new sites must be developed for aggregate use. Finally, it is possible that four jobs would be created in the use of this pit for its aggregate resource.

Environmental Impacts.

A. Trees. As discussed in the economic portion of this analysis above, trees provide potential habitat for elk on the site. However, as the applicant will construct no barriers and reclaim the area for forestry uses, this habitat value will be reestablished through reclamation in the future. Aggregate uses on the site will create more dust and noise than tree production on the site, but the applicant has proposed measures to control both dust and noise. As discussed above, the site will remove approximately 30 acres from the timber base in the County. However, the site has been designed to allow trees to grow between the extraction area and the separate stockpiling area. Applicant's extraction plan is designed to minimize any adverse environmental effects on forest resources, and development of this site may limit the need for a larger number of smaller pits on forest lands. Forest uses might provide shade for Square Creek, but the proposed plan of operation at this site has preserved a 50-foot setback which will also provide shade for Square Creek. Use of the area for aggregate extraction will prevent periodic herbicide spraying which would accompany forest uses. As most of the site has been clear-cut, no major

habitat changes or loss of trees will accompany aggregate uses. There will be a premature harvest of trees on seven acres of the stockpile site, but no market-size trees will be lost at the extraction site.

B. Elk and Fish. The existing rock pit on the site is still used by elk. These habitat values will gradually change as the proposed aggregate use expands on the site. However, no barriers will be constructed to prevent elk from using the remainder of the site, and the area will be returned to forest uses and elk habitat after it has been reclaimed. Aggregate use on the site will entail some dust and noise emissions. However, the applicant will abide by the appropriate DEQ standards and will keep the road in a dust-free condition. In 20 years, the surrounding forest areas will support larger trees, and the small vegetation on the reclaimed portions of the proposed quarry will present habitat variety. Nine adult salmon have been counted in the lower one-half mile of Square Creek, and approximately 25,000 Coho and 10,000 Cutthroat Fry were released into Square Creek in 1987 as part of the STEP program. The creek provides an adequate, but not excellent, habitat. Low summer flows are a limiting factor, and maintaining minimum stream flows is important to sustain fish habitat. We have imposed a condition which will prohibit the applicant from removing water from Square Creek in excess of the proscribed minimum stream flow developed by the Water Resources Department. Indiscriminate operation at the site could cause sediment problems and damage to fish values in the nearby stream. However, the applicant has proposed a sediment containment program which will prevent any adverse impacts on the stream. This program has been described by the representative of the Oregon Fish and Wildlife Department as a good plan. Environmental values associated with fish will be able to coexist with the operation of the aggregate site.

C. Wetlands. The area which contains vegetation which might be found in wetlands primarily consists of a narrow strip along Square creek and one pocket near the extraction area. We find that the area containing vegetation which might be found in wetlands consists of riparian strips and small isolated pockets. These areas are shown on the map attached to Mr. Lampi's August 25, 1987 report, and we adopt that map as delineating the extent of any area at the Bayview site containing vegetation which might be found in wetlands. In the event that any of these areas would be determined to be wetlands, we have imposed a condition that will protect them by imposing a condition designated to maintain minimum setbacks from areas determined to be wetlands. Indiscriminate operation of the proposed use could cause damage to these areas. However,

However, the applicant has proposed acceptable setbacks from Square creek and has also proposed to keep all activities out of wetland areas.

D. Aggregate. As is recognized by the comprehensive plan, the geology of the Oregon coast limits good aggregate sites in Clatsop County. The Bayview site is one of the few sites with high quality and high quantity of rock. The site is already disturbed and has been used for a number of years as a rock pit for forest uses.

Energy Impacts.

A. Trees. Little energy use accompanies the growing of trees, with the exception of occasional spraying, pruning and harvesting activities. Rock extraction and processing would require more energy consumption.

B. Elk and Fish. Elk and fish resource uses entail no energy use. Extraction and processing of rock material requires more energy than these uses.

C. Wetlands. Wetlands uses require no energy use. Extraction processing of rock requires more energy than these uses.

D. Aggregate. Energy expenditure necessarily accompanies aggregate extraction, but aggregate provides a correspondingly greater economic return. The proposed site is close to the market area which reduces fuel consumption and provides a superior choice in terms of energy consumption from sites that are farther away from the market area.

Considering the economic, social, environmental and energy impacts and consequences of locating the proposed use at the Bayview site, we make the following findings. Aggregate is a scarce resource in Clatsop County. It requires an energy consumptive extraction process and necessarily creates some dust and noise. However, we find that the limited sites available for aggregate extraction in Clatsop County make the economic value of a good quality, long-term site, such as the Bayview site, extremely high. We find that 30 acres of timbered land, nearby fish and wildlife habitats, and areas which contain vegetation which might be found in wetlands will be affected by allowing the proposed aggregate use. However, we find the effects on the forest resources will be temporary, and the reclamation plan will return the area to forest uses in the long-term. Similarly, any effects on the elk habitat will be reduced, because no steps will be taken to prevent movement

of the elk across the site. As with forest uses, once the area is reclaimed, it will return to its prior elk habitat value. The applicant has proposed an adequate sediment control plan which will allow fish uses to continue and coexist with the aggregate extraction uses. Similarly, the applicant has given necessary assurances that wetlands will be protected by adequate setbacks. We determine, on balance, and giving consideration of the steps taken by Bayview to reduce any adverse impacts, that the economic, social, environmental and energy analysis mitigates in favor of allowing the use at this site, with conditions. As discussed below, we have developed a program to achieve Goal 5 purposes.

Issue No. 9.

Given the economic, social, environmental and energy consequences to Goal 5 resources, the County must "develop a program to achieve the Goal."

Our initial decision in this matter was accompanied by 14 conditions which were designed to limit the adverse impacts of the proposed quarry operation. We specifically adopt those 14 conditions by reference herein as part of the program to achieve Goal 5 purposes. These conditions include compliance with DEQ noise standards. We note that this condition will help to mitigate any impacts on Goal 5 wildlife resources. In addition, we note that this condition will help insure compatibility of the operation with adjacent forest and residential uses. These conditions also contain a requirement that the operator obtain all State and federal permits. This would include the appropriate DOGAMI permits, including a reclamation plan. This condition will help to preserve Goal 5 values by returning the area to forest and habitat uses once the aggregate extraction operation has terminated. These conditions also contain the requirement that sedimentation ponds be installed so that water turbidity levels in Square Creek are not increased. Applicant has agreed to construct ponds in such a manner that they will handle a 100-year flood event without adverse effect on Square Creek. This condition is designed to protect Goal 5 fishery resources in the adjacent creek. We find that after consideration of the applicant's proposed settlement control plan, the Oregon Department of Fish and Wildlife indicated the applicant's plan for sediment control was a good plan. Conditions also require that roads shall be maintained in a dust-free condition during intensive operations. This condition is designed to reduce dust impacts on adjacent wildlife and fishery uses and minimize any impact on forest resources. Conditions also require observance of riparian setbacks. This condition insures that riparian values

(fish and wetland) are protected. Finally, the original conditions include the requirement that the applicant provide adequate boundary line delineation of the quarry and stockpile sites. This condition allows the applicant flexibility in locating sediment ponds to maximize the effectiveness of the sedimentation pond design. We hereby add the following conditions which are designed to implement and achieve Goal 5 purposes:

First: No barriers will be constructed to prevent wildlife migration, unless required by adjacent residential uses. (This condition will protect Goal 5 wildlife values by allowing continued migration and access by elk to the site.)

Second: Extraction operations on the site will be limited to the hours of 7:00 a.m. through 10:00 p.m. (This condition will help reduce noise impacts on adjacent Goal 5 wildlife values, as well as increase compatibility with adjacent residential uses.)

Third: No extraction activities will occur during the months of December and January. (This condition will eliminate sediment impacts during rainy months and preserve Goal 5 fish values. In addition, this condition will reduce noise and dust impacts upon residences located to the northeast in the event that winds would come from the southwest during this period of time.)

Fourth: The toe of any development will be located according to regulatory approval to protect wetlands. (In conjunction with the setback requirement of the original 14 conditions, this condition is to preserve and protect Goal 5 wetland values.)

Fifth: Rock drilling equipment no louder than 90 dBA [L(50)] will be used at the extraction site. This condition will insure that quieter equipment will be used and thereby eliminate noise impacts on Goal 5 wildlife resources and increase compatibility with nearby residential uses.

Sixth: Minimum stream flow for Square Creek needs to be established by the Oregon Water Resources Department. Water in excess of the prescribed minimum stream flow developed by the Water Resources Department shall not be removed from Square Creek. (This condition will preserve water during low flow periods for fishery purposes.)

Seventh: Extraction shall be in accordance with the staged extraction plan as submitted by applicant as prepared by David Evans & Associates, Inc. on August 26, 1987. (This condition will result in the mouth of the quarry being oriented away from residences and will result in a lip of rock being maintained between the resources and the quarry. This will insure sound levels are within DEQ standards.)

We conclude that these conditions, together with the conditions imposed and adopted by us in the prior proceeding and together with the Bayview excavation plan and sedimentation control plan, constitute a program designed to achieve Goal 5 purposes.

PART IV. ALTERNATIVE EXCEPTION ANALYSIS

As set forth in Part I of these findings, we have concluded that the only issues open for discussion in this remand proceeding are the ones we have discussed in Part III above. However, without prejudice to our conclusion, in the event that all exception standards would be deemed to apply to this limited remand proceeding, we make the following analysis of the statutory and regulatory factors necessary to take an exception. We specifically note that our conclusion in Part I of these findings limiting the scope of this hearing proceeding is the correct analysis of the scope of the hearing. Nonetheless, to avoid creating the grounds for subsequent appeal on this matter, we make the following analysis.

We find that the 14 alternative sites which have been examined in these proceedings, and are discussed as part of these findings, are divided into three fundamental areas: (1) uses located in Quarry and Mining Zones; (2) nonconforming uses; and (3) uses located in exception areas. Depending on how each site is classified, the primary standard which is applicable differs. The two QM Zones, Johnson QM and Seaside Reservoir QM, do not require an exception to receive a Quarry and Mining use. Accordingly, these sites are analyzed under the "reasonably accommodate" standard as found in ORS 197.732(1)(c)(B) and OAR 660-04-02(1)(b). Nonconforming uses are uses that lawfully existed at the time that the Clatsop County Land and Water Development Use Ordinance became applicable to the development, but that would otherwise not be lawful in the zone in which they are located. Aggregate extraction at several of the alternative sites occurred before the institution of the Clatsop County zoning ordinance and are classified, for the purposes of these findings, as nonconforming uses. These include the existing Rippet Quarry, the Ordway Quarry, the Darling Quarry, the Forked Horn Quarry, the

McEwen Clay Borrow Pit and the Bear Cat Quarry. Each of these sites has an existing DOGAMI permit and has a history of recent activity. As we have previously noted with respect to the Rippet Quarry and the Johnson F-80 site, any significant expansion of these sites beyond their present size, or beyond the parameters of their DOGAMI reclamation plans, will require an exception. The nonconforming use portions of these quarries, because no exception is needed to continue operation there, must be analyzed under the "reasonably accommodate" standard found in ORS 197.732(1)(c)(B) and OAR 660-04-02(1)(b). The remaining sites are areas for which an exception is necessary to conduct any further aggregate extraction operations. These sites include the Rippet Quarry (expansion), Johnson F-80, Silver Point, Stevens River Rock Borrow Pit, Cavenham Pit Run, Cavenham Highway 101 Borrow Pit and Halverson Clay Borrow Pit. The Rippet expansion and Johnson F-80 sites have no County permits. The Silver Point site has no DOGAMI permit. The Stevens River, Cavenham Pit Run, Cavenham Highway 101, and Halverson sites have been closed by DOGAMI and have no DOGAMI permit. Under Issue No. 1 above, we have previously explained our rationale for analysis of the Rippet expansion and the Johnson F-80 sites. Each of the other sites in this classification is an existing pit that has been used in the past. However, at this point, none of the pits have DOGAMI authorizations. Any attempt to use these previously-existing sites necessarily entails a new start-up and, therefore, a significant expansion of allowable activities at the site. Accordingly, under Policy 17 of the County Comprehensive Plan, Goal 4, County-wide Element, an exception is needed to extract rock at these sites. Accordingly, these sites must be analyzed under the "significantly more adverse" standard found in ORS 197.732(1)(c)(C) and OAR 660-04-020(1)(c). We find that the Ordway Quarry contains approximately 160,000 cubic yards of aggregate available for extraction. This represents up to a one-year supply for the demand we have found in the market area. In addition, we note that it would make no sense to expand the Ordway Quarry, because the rock found there does not meet specifications. The Darling Quarry contains approximately 100,000 cubic yards of rock which is significantly less than a one-year supply for the demand in the market area. Given this limited quantity and the fact that the Darling material is of marginal quality, it makes no sense to consider this site for expansion for the proposed use. The Forked Horn Quarry contains approximately 100,000 cubic yards of material available for aggregate extraction. Again, this represents less than a one-year's supply, given the market area demand. Accordingly, it makes no sense to consider this quarry for expansion. The McEwen Clay Borrow Pit is a clay borrow source which is extremely small in size (less than one acre) and has

no commercial quality of rock. It is not reasonable to consider this pit for expansion when adequate quality of rock does not exist. Finally, the Bear Cat Pit contains approximately 148,000 cubic yards available for aggregate extraction. This is less than a one-year supply, given the demand in the market area. It is not logical to consider this area for expansion, given the limited supply that is available. We decline to consider expansion of the Ordway, Darling, Forked Horn, McEwen and Bear Cat pits under the standard. Our reasoning is that they have deficient quantity to merit consideration for expansion.

Standard No. 1.

"Areas which do not require a new exception cannot reasonably accommodate the use" (ORS 197.732(1)(c)(B); OAR 660-04-02(1)(b)).

We find the following facts in the record relevant to this standard:

Exhibit A, attached and made part of these findings, is a map which describes each of the alternative sites under consideration. Exhibits D and E, attached and made part of these findings, are summaries of our findings concerning the characteristics of all alternative sites under consideration in this matter. These exhibits contain a summary of facts that we have examined and adopted from the initial and supplemental reports of Messrs. Lampi, Bee, Price, Gamble, and of the opponents' geologists. We specifically adopt as part of these findings each of the factual determinations which are set forth in Exhibits D and E.

The characteristics of the Seaside Reservoir QM zone (no DOGAMI permit) which we find relevant to this standard are summarized on Exhibit E. We note that a fair quantity of rock (1 million cubic yards) appears to be available for excavation at the Seaside Reservoir QM site. However, we note several important reasons why this site would be an extremely poor choice for a rock quarry. First, three residences are immediately adjacent to this zone, and a multi-space trailer park is located 350 feet from the border of the zone. One of these residences is surrounded on three sides by this site. An additional residence is located 600 feet from the western edge of this zone. Extraction and crushing on this site cannot meet DEQ noise standards, given the close proximity of the zone to existing residences. Of equal importance, the sole water

source for the City of Seaside (a large reservoir) sits directly adjacent to the zone. Two water transmission lines traverse the zone, and a treatment center is located nearby. The City of Seaside has expressed great concern over aggregate extraction activities on this site. In addition, the landowner of the property (Cavenham) has stated that this site will not be considered for a quarry and mining. Finally, deep overburden and vibration control present additional costs of operating on this site. The negative factors present at the site would not only increase the cost of material extracted from this site, but also provide a separate reason for allowing NO mining activity on the site. Because of all these negative factors, we conclude that the Seaside Reservoir QM zone cannot reasonably accommodate the use proposed by applicant.

We have previously analyzed the ability of the Johnson QM zone to reasonably accommodate the proposed quarry in Issue No. 1, Parts III and IV above. We incorporate by reference herein that entire analysis. Based on the findings and conclusions in that analysis, we conclude that the Johnson QM Quarry cannot reasonably accommodate the proposed use.

As with our discussion of the Johnson QM zone above, for the purpose of our discussion of this standard relative to the Rippet Quarry (04-0007), we incorporate by reference our previous analysis of the Rippet Quarry as set forth in Issue No. 1, Part III above. We find that the amount of material available for extraction at this nonconforming site is less than a 2-years' demand for aggregate materials in the market area. We find that two residences are located within 300 to 400 feet of the property and that an additional two residences are located within 800 feet of the property. Extraction activities at this site have considerable negative impacts on residences located this close. We find that aggregate from this pit is part of the product mix of the Johnson operation and that the average price from the Johnson operation is $6.00 per cubic yard. We find this to greatly exceed the projected cost of aggregate to be produced at the proposed site. Differential between the two figures represents additional cost to the consumers of aggregate-based products in Clatsop County. We find several environmental problems which limit development at the Rippet Quarry. Overburden at the site is relatively deep and causes handling problems during aggregate extraction. We find that the high, near-vertical face of the quarry presents reclamation difficulties. The site is clearly visible from U.S. Highway 101 and Highway 26 and cannot be screened, because it is a prominent topographic feature. Tne material from this quarry is presently being transported across U.S. Highway 101 for processing at the Johnson QM Quarry. Because we find only a small

amount of aggregate is available at this site (250,000 cubic yards) and because of the high price of the aggregate produced from this site in the market area, we find the Rippet Quarry does not meet two necessary requirements for the proposed use (i.e., large quantity and low cost). In addition, because we find that the Rippet Quarry presents environmental problems (possible overburden problems, reclamation problems, visibility problems and adjacent residences), we find that environmental restrictions exist here which are not present at the Bayview site and which would increase production costs and present operation difficulties. We conclude that a lack of material, the high price of material, and increased environmental impacts prevent this site from reasonably accommodating the proposed use.

With respect to the Ordway and Darling Quarries, we specifically incorporate by reference our discussion under Issue No. 3 of Part III above. As set forth in that analysis, the Darling Quarry contains rock which produced marginal test results that indicate that the average production from the site will not consistently meet necessary contract specifications. In addition, we find that aggregate recently produced at the site was rejected by the State of Oregon, because it failed to meet specifications. In addition, the Darling site contains only 100,000 cubic yards of material which is less than a one-year supply for the market area demand. We find that the Ordway Quarry failed several rock quality tests which indicates that the average production from the site will not consistently meet necessary contract specifications. In addition, we find that the Ordway Quarry contains approximately 160,000 cubic yards of material available for extraction which represents at most a one-year supply based on the market area demand. The applicant has proposed a use which includes extraction and processing of high quality aggregate material for a 20-year period and must have rock which meets necessary contract specifications. Because of the limited amount of material available at the Darling and Ordway sites, and because of the marginal quality, or lack of quality, at the two sites, we conclude that the Darling Quarry and the Ordway Quarry cannot reasonably accommodate the proposed use.

The Forked Horn Quarry is located on approximately four acres in an F-80 zone, 13 miles from the Cannon Beach junction. It is visible from Highway 26, and it contains a limited quantity of rock, approximately 100,000 cubic yards. The available quantity of rock at the Forked Horn Quarry is less than a one-year supply based on the demand in the market area and is significantly less than the amount of material needed to support the proposed use. In addition, the distance

of the Forked Horn Quarry from the market area adds a significant amount to the cost of the aggregate to be produced at that area if transported to the market area. We find that any material produced at that quarry and transported to the market area will add significant cost to the delivered product (approximately $2.60 to $3.50 per cubic yard), and we find that the Bayview site does not present this increased cost if it is located at the proposed site. Because we find that the Forked Horn Quarry does not contain sufficient material to support the proposed use and because of the increase in price due to this quarry's location outside the market area, we conclude that the Forked Horn Quarry cannot reasonably accommodate the proposed use.

The Bear Cat Quarry is approximately one acre in size and is located in an F-80 zone directly adjacent to U.S. Highway 26. Residences are located within 200 feet of the site. It is six miles distant from the Cannon Beach junction and contains a limited quantity of rock estimated to be approximately 148,000 cubic yards. Consistent with our analysis above, we find that the limited quantity of rock available at this quarry will not support the long-term use proposed by the applicant. In addition, we find that the proximity of this pit and its orientation toward nearby residences does not allow for adequate barriers to reduce sound from extraction equipment. Because of its physical location, the Bear Cat Pit will exceed existing DEQ standards for the nearby residences if extraction is allowed at the site. Because we find that the limited quantity of rock available at the Bear Cat Pit does not provide for a long-term use and because extraction operations at the site are not likely to meet DEQ noise standards due to the close proximity of residences, we conclude that this site cannot reasonably accommodate the proposed use.

The McEwen Clay Borrow Pit is less than one acre in size and is located in an F-80 zone directly adjacent to U.S. Highway 101. It is located in a scenic highway corridor and is approximately 900 feet from the closest residence. No commercial quality of rock is available at this site. We find that the applicant has proposed a long-term extraction use which requires quality rock which will meet State Highway Specifications. The McEwen Pit does not have this kind of rock. Accordingly, we conclude that the McEwen Clay Borrow Pit cannot reasonably accommodate the proposed use.

It has been the suggestion by the opponents in this matter that the cumulative amount of aggregate available in the market area is sufficient to meet the County's needs and that a

new production site is not warranted. We find that the annual demand in the market area to be served by the proposed quarry is between 161,000 to 250,000 cubic yards per year. We find that the amount of aggregate available at all the sites analyzed under this standard totals 578,000 cubic yards. The figure does not include any additional material that could be produced at additional expense at the Johnson QM zone by digging below the floor of the existing quarry. We find that the additional expense associated with extracting that material makes this prohibitively expensive. The figure also does not include any material that might be available at the Seaside QM Quarry. We find that the negative factors present at that site are so overwhelming that no aggregate mining use shall be allowed at the site. The total amount of aggregate actually available for extraction at these sites represents less than a 2-1/2 to 4-years' supply based on the market area demand. This does not present the sufficient long term supply the County needs of an essential construction material. In addition, the applicant has proposed a central processing area where it may establish its operations and conduct sales to the public. If the applicant were forced to exhaust each of the various sites, it would be forced to change its location approximately once a year and would lose the advantage of a long-term centralized location. In addition, locations, such as the Forked Horn Quarry, would involve considerable expense for transportation of aggregate to the market area. Also, an extraction operation could not take place at the Bear Cat Quarry, because it would not be able to meet DEQ standards. Even if the material available in the exception areas (Rippet Quarry, approximately 250,000 cubic yards; Stevens River Rock Borrow Pit, 45,000 cubic yards; and Johnson F-80, 300,000 cubic yards) were added to the cummulative total, the amount of material available for extraction in the market area would only total 1,173,000 cubic yards. This provides less than a 5 to 8-year supply based on the market area demand. This is not a long term supply that is needed by the County for the strategic material in the future. The addition of these three pits also entails other difficulties which make it impractical to consider them cumulative. First, the Stevens River Pit has ground water near the surface and would not involve the same type of extraction that the applicant has proposed. In addition, to obtain the long-term quantities, the applicant would be forced to move its operations three additional times during a 5 to 8-year period. In addition, relying on existing sources would do nothing to address the sole source supply problem presented by the Johnson Quarry. The County roadmaster has indicated that at times the County has been unable to get rock from Johnson and that increased competition would be good for the county. Finally, with ownership of each of the cumulative quarries held by different

people, there is no guarantee that the applicant would be able to obtain the necessary quantity and quality or be able to locate his equipment at the various quarries. In fact, the record demonstrates that it costs the applicant additional money to locate his equipment at the Johnson operation under certain circumstances. The record also indicates that there is insufficient room at the Darling Quarry for a centralized operation. We find that all these negative factors make it unreasonable for the County to demand that the applicant obtain its rock from a series of different extraction areas over the next five to eight years. Accordingly, we conclude that the available alternative sites, considered cumulatively, cannot reasonably accommodate the proposed use.

In the event that any of the areas that we have determined should be analyzed under the "significantly more adverse" standards would be deemed to fall under the "reasonably accommodate" standard, we make the following findings. With regard to any expansion of the Rippet Quarry, we incorporate our analysis under Issues Nos. 1, 5 and 6 above. For our limited analysis discussion here, we find that it is sufficient to point to a single factor at the Rippet Quarry which prevents it from reasonably accommodating the proposed use. As is set forth in our analysis above, rock from the Rippet Quarry is part of the raw material mix which goes into the Johnson crushed aggregate product which is priced at approximately $6.00 per cubic yard. This price is considerably more than the projected $4.30/$4.45 per cubic yard cost for crushed aggregate that will be produced at the Bayview Quarry. We also find that in certain situations, Johnson's pricing policies for aggregate to be incorporated into bonded government jobs create price contingencies of up to $1.00 per cubic yard which prevent applicant from getting projects that are available in the market area. We find these two differentials to have an economic effect on the final price it is paid by the consumer in Clatsop County for products that incorporate aggregate materials. Any expansion in the Rippet Quarry is part of the Johnson operation which produces aggregate that is priced substantially higher than the cost of material produced at the Bayview Quarry. We find that it is unreasonable to prevent competition, given the potential benefits to consumers in Clatsop County, and we conclude that any expansion of the Rippet Quarry cannot reasonably accommodate the proposed use.

The Johnson F-80 site (no DOGAMI permit) is previously discussed in our analysis under Issue No. 1 in Part III above.

We incorporate that analysis herein by reference. Consistent with that analysis, we conclude that the high price of the rock produced at this quarry and the low quantity of rock available for extractions prevent this site from reasonably accommodating the proposed use.

The Stevens River Rock Borrow Pit (04-0049) is located in a lake and wetland zone. A large portion of this site is identified significant wetlands in the County Goal 5 resource inventory. Ground water is encountered at approximately 3 to 5 feet below the surface of the ground at this site. Several residences and commercial establishments are located within 150 feet of the site. The site has approximately 45,000 cubic yards of material available for extraction. We find that rock extraction is incompatible with wetlands which are identified as significant wetlands in the County Goal 5 County-wide Element. We further find that the use proposed by the applicant is a long-term, high-volume aggregate use which could not be met by the limited quantity of material that is available for extraction at this site. We further find that rock extraction should not occur in areas that are indentified as significant wetlands in the County Goal 5 resource inventory. For these reasons, we conclude that the Stevens River Rock Borrow Pit cannot reasonably accommodate the proposed use.

We find that the Silver Point Quarry is approximately 1 acre in size and has approximately 100,000 cubic yards available for extraction. We find that the Silver Point Quarry presents significant danger of landslide damage in the surrounding area. We find that the amount of material available at the Silver Point Quarry is less than a 1-year's supply based on the market area demand. The Cavenham Pit Run, Cavenham Highway 101 and Halvorsen Quarry are extremely small (less than 1 acre or not visible in aerial photographs) and have no commercial quality of rock available. Because there is no commercial quality of rock available at the Cavenham Pit Run, Cavenham Highway 101 and Halvorsen Pits which meets the necessary quality specifications and because the Silver Point Quarry has a limited quantity available and has significant landslide dangers, we find that these sites cannot reasonably accommodate the proposed use.

As all the areas which do not require a new exception cannot reasonably accommodate the proposed use, we conclude that this standard has been met.

Standard No. 2.

OAR 660-04-020.

"(2) The four factors in Goal 2 Part II(c) required to be addressed when taking an exception to a Goal are:

* * *

"(b) 'Areas Which Do Not Require a New Exception Cannot Reasonably Accommodate the Use':

"(A) The exception shall indicate on a map or otherwise describe the location of possible alternative areas considered for the use, which do not require a new exception. The area for which the exception is taken shall be identified."

We find, consistent with our discussion in Parts I-V herein, that possible alternative areas which might conceivably accommodate the use have been located, described, and indicated on a map which is part of the hearings record and is made a part of these findings as Exhibit A. We also find that the area from which exception is taken has been similarly identified. Accordingly, we find that this Standard has been met.

Standard No. 3.

OAR 660-04-020(2)(b)(B).

"(B) To show why the particular site is justified, it is necessary to discuss why other areas which do not require a new exception cannot reasonably accommodate the proposed use. Economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas. Under the alternative factor the following questions shall be addressed:

"(i) Can the proposed use be reasonably accommodated on nonresource land that would not require an exception, including increasing the density of uses on nonresource land? If not, why not?"

We find that the only proposed alternative sites that are located on nonresource land are Stevens River Rock Borrow

Pit (04-0049, L&W zone), the Johnson QM zone (04-0011, QM zone), and the Seaside Reservoir QM zone (no DOGAMI permit, QM zone). We find that all the other proposed sites are located in F-80 or AF-20 zones and, therefore, are located on resource land. In our analysis under Standard No. 1 above, we concluded that none of the three sites specifically listed above could reasonably accommodate the proposed use. We incorporate the analysis of Standard No. 1 by reference herein and reaffirm our conclusion that none of these sites can reasonably accommodate the proposed use.

The three sites listed above constitute the only nonresource land identified in this hearing where aggregate resources might exist. Increasing the density of the uses on this nonresource land is not a logical exercise, given the fact that aggregate extraction is a consumptive use of the nonresource land. The extraction of aggregate actually consumes the land on which it is located. It does not make sense to attempt to increase the density of uses on the parcel of land that will be consumed as a result of the use activity. In addition, aggregate extraction cannot occur without proper regard for reclamation of this site or without regard to physical limitations of the extraction operation, including the necessity of blasting. Increasing the density of aggregate use would create problems with physical operation of a quarry and reclamation. It has been suggested by the opponents of the proposed site that the life of the Johnson QM zone could be extended by extracting beneath the existing quarry floor. In the event that this would be deemed to be an increase of the density uses on the Johnson QM site, we find that it is impracticable. The size of the property would restrict the below-grade extraction to a very small surface area, and no more than 145,000 cubic yards of additional material would be available. Limited area at the site available for extraction would limit the width and the height of face for blasting. Increased costs due to physical restraints of the size of the area and the blasting required will increase the cost of the material produced by approximately $1.00 per cubic yard. Material produced at this site is already priced at $1.55-$1.70 more than the proposed cost of material at the Bayview site. We find that one of the primary reasons for developing the Bayview Quarry is to make aggregate material available at a lower cost in the market area. This reason is defeated by attempting to extract beneath the floor of the Johnson QM Quarry. Because of the inherent impossibility of increasing the density of consumptive uses and because of the increased costs associated with

extracting below established quarry floors, we conclude that the proposed use cannot be reasonably accommodated by attempts at increasing the density of the uses on nonresource land. We find that the appropriate definition of "resource land" is found in OAR 660-040-005(2). For the purposes of this decision, we find that resource land includes only forest and agricultural lands. However, QM and LW zones are described as "resource zones" at pages 29a and 52 of LWDUO. In the event the classifications in the zoning ordinance would be deemed to supersede the statutory classifications in OAR 660-040-005(2), this standard would not apply because all the potential alternative sites would be located on resource land.

Standard No. 4.

OAR 660-04-020(2)(b)(B).

"(B) To show why the particular site is justified, it is necessary to discuss why other areas which do not require a new exception cannot reasonably accommodate the proposed use. Economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas. Under the alternative factor the following questions shall be addressed:

* * *

"(ii) Can the proposed use be reasonably accommodated on resource land that is already irrevocably committed to nonresource uses, not allowed by the applicable Goal, including resource land in existing rural centers, or by increasing the density of uses on committed lands? If not, why not?"

We find that land is irrevocably committed to nonresource use when uses not allowed by the applicable goal (in this case Goal 4) make uses allowed by the applicable goal impracticable. We find that we must examine the characteristics of the potential nonexception area in relationship to the characteristics of the adjacent lands to determine whether the physical improvements in the area make the resource land unsuitable for its resource use. We limit this discussion to the existing Rippet Quarry (04-0007), because all the other potential nonexception alternative sites are either located on nonresource land (Johnson QM Zone; Seaside Reservoir QM Zone;

Stevens River Rock Borrow Pit) or lack the necessary quality and/or quantity of materials to serve as a logical choice for the proposed use. (The existing portions of Ordway; Darling; Forked Horn; McEwen and Bear Cat, see analysis in Parts III and IV above). We incorporate our analysis under Standard No. 1 above, and our analysis in Part III, in support of this conclusion. We find that alternative sites which lack DOGAMI permits or have been closed by DOGAMI (Silver Point, Johnson F-80, Cavenham Highway 101, Cavenham Pit Run, Halvorsen and Stevens River Rock Borrow Pit) need not be analyzed because an exception is required for their use. In any event, these sites lack the necessary quality and/or quantity to reasonably accommodate the proposed use. We incorporate our analysis in Parts III and IV above in support of these conclusions.

Our review of the site description of the Rippet Quarry indicates that it is adjoined by timbered slopes. Review of aerial photographs submitted as exhibits in this matter shows that the Rippet Quarry is surrounded to the west by forest uses. The aerial photographs indicate that some tree removal activity has taken place on the site, but that the disturbed surface area is easily ascertainable and is surrounded by existing stands of trees. To the west of the Rippet Quarry are uninterrupted forest lands. The size of the disturbed surface area is small in comparison with the surrounding forest covered lands. Furthermore, there are no man-made features (such as highway or structures) that distinctly separate the Rippet Quarry from the adjacent resource land. We conclude that it is not impracticable for forest uses to continue around the Rippet Quarry and conclude that the adjoining resource land is not irrevocably committed to nonresource use. We find that no potential aggregate resource has been identified on land which is designated a Rural Center. As discussed under Standard No. 3 above, increasing the density of uses is not a concept that readily can be applied to a consumptive use, such as aggregate extraction. We conclude that increasing the density of uses is not an option for consumptive uses, such as aggregate extraction. Accordingly, we conclude that this standard is met. As discussed in Standard No. 3 above, we find that the appropriate definition of "resource land" is found in OAR 660-040-005(2). For the purposes of this decision, resource land includes only forest and agricultural lands. However, QM and LW zones are described as "resource zone" at pages 29a and 52 of LWDUO. In the event the classifications in the zoning ordinance would be deemed to apply under this standard, we find that our conclusions would not be changed. As discussed in Part III above and Standard No. 1 of Part IV

above, we find that Seaside Reservoir QM zone, the Johnson QM zone and the Stevens River Rock Borrow Pit cannot reasonably accommodate the proposed use. Accordingly, this standard is met under either definition of resource land.

Standard No. 5.

OAR 660-04-020(2)(b)(B).

"(B) To show why the particular site is justified, it is necessary to discuss why other areas which do not require a new exception cannot reasonably accommodate the proposed use. Economic factors can be considered along with other relevant factors in determining that the use cannot reasonably be accommodated in other areas. Under the alternative factor the following questions shall be addressed:

* * *

"(iii) Can the proposed use be reasonably accommodated inside an urban growth boundary? If not, why not?"

None of the 14 potential alternative sites are located inside an urban growth boundary. The Stevens River Rock Borrow Pit is located adjacent to, but outside of, the Seaside urban growth boundary. We conclude that no sites have been identified inside an urban growth boundary and that this Standard is not applicable.

Standard No. 6.

"The long-term environmental, economic, social and energy consequences resulting from the use at the proposed site, with measures designed to reduce adverse impacts, are not significantly more adverse than would typically result from the same proposal being located in areas requiring a Goal exception rather than the proposed site; ORS 197.732(1)(c)(C); OAR 660-04-020(1)(c)."

As set forth under Issues Nos. 5 and 6, Part III of these findings, we find that the characteristics of the alternative sites are fully described in the record, and the characteristics of the 14 sites, which have been identified as potential alternative locations for the proposed use, as well as the Bayview site, are summarized in Exhibits D and E, which we have adopted as part of our findings. We find that

these summaries accurately describe the characteristics of each site. We also find that the locations of these sites are shown on Exhibit A which we have made part of these findings. We incorporate by reference herein the materials contained in the summaries and the map. Under Issue Nos. 5 and 6, we discussed the characteristics, advantages and disadvantages of the Cavenham 101 Borrow Pit (04-0028), the Cavenham Pit Run Borrow Pit (04-0036), the McEwen Clay Borrow Pit (04-0046), the Stevens River Rock Borrow Pit (04-0049), and the Halvorsen Clay Borrow Pit (04-0032). Our analysis of findings and conclusions relative to these 5 sites is incorporated herein by reference and will not be repeated. Under Issues Nos. 5 and 6, Part III above, we also analyzed the characteristics and impacts of the Rippet Quarry and the Johnson F-80 site as compared to the proposed Bayview site. That analysis is incorporated herein by reference and will not be repeated.

Typical Advantages and Disadvantages of an Alternative Site.

All the 14 alternative sites which have been identified during this proceeding are typically located in an F-80 forestry zone. Only the Seaside QM Reservoir, Johnson QM Quarry, Ordway and Stevens River Rock Pit have different zoning (QM, AF-20 or L&W). The typical quality of rock from the 14 alternative sites varies greatly. Many of the sites have no commercial quality of rock which is available for extraction. Other sites which were tested had marginal or nonpassing results in critical indicator tests. The Bayview site contains rock which meets the necessary State of Oregon specification, and it is assumed that the Rippet, Johnson QM, Johnson F-80 and Forked Horn Quarries also provide State specification rock. The typical quantity available at the alternative sites is small. Many of the sites have less than 1 acre of extraction area available. Several of the mid-range sites present quantities of rock which range from 100,000 cubic yards to 160,000 cubic yards. The Johnson F-80 and Rippet Quarries contain between 240,000 and 300,000 cubic yards. Some additional material may be available at the Rippet Quarry if expansion is allowed. Overburden at the sites varies widely. It ranges from a 10 to 15 foot depth at the Bayview Quarry to as much as 30 feet at other quarries. Storage and disposal area varies widely among the alternative sites. Several of the sites are so small that it is difficult to project the amount of area that might be available for storage. Other areas, such as the Darling Quarry, have a demonstrated lack of disposal and storage area. Still other areas, such as Bayview and the Johnson QM Quarries, have ample storage and disposal areas. Operational area varies in the same manner as storage and disposal area varies among the alternative sites. Water availability is not generally

uniform among all the sites. Some sites, such as Forked Horn or Ordway Quarries, have no water supply nearby. Other sites, such as the Johnson QM site, are located adjacent to large streams. Bayview is adjacent to a small stream which may provide water that will be supplemented by importation during periods of low flow. Drainage and sediment treatment facilities vary greatly among the alternative sites. Some sites, such as the Darling Quarry, have a demonstrated problem with drainage control and cause sedimentation in nearby water bodies. Other sites, such as Forked Horn and Ordway Quarries, are remote from water sources, and drainage and sedimentation problems are not apparent. Still other sites, such as Bayview and the Johnson QM Quarry, are located near water bodies but have implemented or proposed adequate drainage and sediment treatment facilities. Blasting is typically needed at sites which will produce high-quality rock. However, it is possible that the Bayview site may be developed without the need for blasting. Similar equipment would be required to operate all the sites, except the Stevens River Borrow Pit, and noise that would be typically generated during the extraction and crushing phases of aggregate production are similar at most of the sites. However, the location and orientation of the quarry area provides advantages at some sites and disadvantages at others. For example, the mouth of the Bayview Quarry is oriented away from nearby residences. Whereas, the mouths of the Rippet and Johnson QM Quarries are oriented toward nearby residences. With the exception of the Stevens River Rock Pit, the alternative sites are generally located as part of, or adjacent to, relatively steep slopes. Stability of these slopes varies widely. For example, the Silver Point site has extremely unstable geology, and the Rippet Pit has experienced substantial landslides in the last five years. Other quarries, such as the Johnson QM zone and the proposed Bayview site, demonstrate slope stability. Surface and stream erosion vary at the sites depending on the steepness of the slope, the presence of vegetation and the location of adjacent streams. The Darling Quarry is located directly adjacent to Circle Creek and has had problems with sedimentation due to surface and stream erosion in the past. At the other end of the spectrum, the Johnson Quarry and the Bayview site, while adjacent to nearby streams, are not presented with large problems in erosion. This surface erosion does not appear to be a large problem with the Johnson QM site, and steps have been taken at the Bayview site to prevent any erosion problems. Flood possibilities depend on nature and extent of adjacent water bodies. Typically, the smaller alternative pits have no nearby body of water. Other pits have streams which are located nearby, and the Johnson F-80 site has a Class I stream which flows directly through the property. Wetland areas have typically not been

identified at any of the alternative sites. Areas which support vegetation which might be found in wetland areas occur at the Bayview site. A condition is included in the Bayview approval to insure protection of any areas determined to be wetlands. Riparian vegetation is present only at those sites which are located near a body of water. The County Comprehensive Plan defines the extent of riparian vegetation which typically extends 50 feet from the high-water mark of an adjacent stream. Fisheries and wildlife considerations are present at most of the sites. Virtually all the sites are classified as elk habitat. Fishery values are a consideration at sites located near Class I streams. Typically, there have been no adverse impacts on fisheries by the operation of aggregate quarries. In the past, the Darling Quarry has had some siltation problems. The Bayview application has proposed significant measures which will prevent adverse impact on fishery resources. Economic advantages related to extraction on the alternative sites vary widely. Some sites are so small and contain poor quality of rock so that they cannot economically support an aggregate use. Other sites have larger quantities of rock but are unable to produce rock which meets necessary highway specifications. The sites associated with the Johnson operation are at a disadvantage due to the high priced charge for the material. The Bayview operation has a distinct advantage in that the cost of materials produced is significantly lower than is available at the present time in the market area. Similar technology will be needed to extract rock at all sites except the Stevens River Borrow Pit. The energy consequences generally associated with the extraction process are similar at all the sites. However, some of the sites such as Bear Cat, Silver Point and Forked Horn Quarries, are located more distant from the market area and would require greater amounts of energy to transport the raw materials to the market area.

We find that many of the alternative sites which have been suggested typically result in less favorable environmental, economic, social and energy consequences if the Bayview use were located at the site. For example, many of the small sites simply do not have the quantity or quality of rock necessary to sustain the proposed use. This creates a severe long-term economic consequence which would result from any attempted location of the proposed use at these sites. Other sites have inferior rock quality or insufficient rock quantity. Again, this creates a long-term economic disadvantage that is not present at the Bayview site. Many of the sites are clearly visible from adjoining highways or have residences nearby. The Bayview extraction area is located approximately 2,800 feet from the nearest residence and cannot be seen from highway. Any site which is located closer to nearby residences or a

highway will generally have long-term social consequences which are not present at the Bayview site. Typical long-term energy consequences of using any particular site are roughly the same in terms of the amount of energy needed to extract the raw material. However, certain pits are located at greater distances from the market area which provides greater energy consumption in the long term. The Bayview site is located in the market area and is no less strategically placed in terms of energy consequences than any of the other sites. Long-term environmental consequences vary with each of the sites. However, given the measures proposed by Bayview and the conditions imposed by the County, the long-term environmental consequences of the Bayview site are small. Other sites would have difficulty with visibility, sedimentation and timber destruction problems.

We find that the attached Exhibit D summarizes the typical long-term environmental, economic, social and energy consequences that are related with each of the alternative sites which require an exception. Our analysis of Exhibit D, consistent with our findings in Parts III and IV herein, lead us to the conclusion that the Bayview site with measures to reduce noise, protect fisheries and stream values, protect wetlands and prevent dust does not present long-term environmental, economic, social or energy consequences that are more significantly adverse than would typically result from the same proposal being located at any other identified site that requires a goal exception.

Economic Characteristics and Impacts.

The Darling Quarry contains rock which received marginal test reports on standard tests used to determine whether average quality of rock will meet necessary construction standards. In addition, the Oregon Department of Transportation, Highway Division, recently rejected a lot of rock produced at the Darling Quarry, because it did not meet specifications. The rock at the Ordway Quarry failed four test specifications. Rock from the Bayview Quarry received acceptable test results on several indicator tests, and we find that the rock meets the necessary specifications for widespread use. No test results are available from the Forked Horn Quarry, the Silver Point site or the Bear Cat Pit. Rock quality at the Johnson F-80 and Rippet Quarries (expansion) are assumed to meet specifications. The quantity of rock available at the Darling Quarry, the Forked Horn Quarry and the Silver Point Pit are each limited to approximately 100,000 cubic yards. Rock available at the Bear Cat Quarry for extraction is limited to approximately 148,000 cubic yards. Rock available for extraction at the

Ordway Quarry is limited to 160,000 cubic yards. The Johnson F-80 Quarry has only approximately 300,000 cubic yards available for extraction. The active portion of the Rippet Quarry contains approximately 244,000 cubic yards, and some additional material is available if the quarry receives approval to expand. By contrast, the Bayview Quarry has approximately 1.5 to 2.0 million cubic yards of material available for excavation. For aggregate uses, Bayview Quarry would be the most productive, and the alternative quarries, on their own, would not provide sufficient rock to meet the use proposed at the Bayview site, given County demand of approximately 161,000 to 250,000 cubic yards per year. As discussed under Part IV above, we have determined that it is impracticable to attempt to consider the quantities available in the alternative pits in a cummulative fashion. Because of the lack of rock available for extraction at these other quarries, we conclude that they cannot produce sufficient rock to sustain the proposed use and that attempting to locate the proposed use at these sites would entail significant negative economic consequences. The negative economic consequences are not present at the Bayview site, and we find no other negative consequences at the Bayview site. We conclude that the long-term economic consequences resulting from the use at the Bayview site are not significantly more adverse than the consequences which would typically result from the same proposal being located at any one of these five quarries.

Environmental Characteritics and Impacts.

The Bayview site has sufficient room for sedimentation ponds to control sediment runoff into adjacent streams. By contrast, the Darling Quarry has insufficient space for sediment ponds. Sediment ponds are not a consideration at the Ordway Quarry, the Forked Horn Quarry or the Silver Point Quarry, because they are located away from nearby streams. In addition, sediment ponds are not a consideration at the Bear Cat Quarry, because the Necanicum River lies across Highway 26 from the site. The Johnson F-80 Quarry and Rippet Quarry (expansion) also appear to have sufficient room to locate sediment ponds. The ponds at the Bayview site are designed to meet to 100 year storm event. We find this to be an objective standard that will allow us to assess compliance with the conditions imposed by these findings. As discussed in Part III above, the geology at the Bayview site is stable, and landslides are not a problem. With the exception of the Silver Point Quarry, where landslides present a danger to U.S. Highway 101 and nearby residences, and the Rippet Quarry (expansion) where a large slide occurred in 1984, landslides do not appear to be a problem at the other sites. The Bayview Quarry is located away from highways and cannot be seen from any major traffic artery

or any residences. All the other quarries can be clearly seen from either U.S. Highway 101 or State Highway 26. The Rippet Quarry in particular is an eyesore which is widely visible and cannot be screened because of the topography present at the site. In addition, the Rippet (expansion), Johnson F-80, Ordway, Silver Point and Bear Cat Quarries also can be seen by nearby residences. The extraction area at the Bayview Quarry has been recently clearcut and no marketable timber is present. By contrast, the Rippet (expansion), Johnson F-80, Darling, Ordway and Silver Point Quarries have timber surrounding the extraction sites. The Forked Horn and Bear Cat sites appear not to be heavily timbered. Whereas, interruptions of the timber-growing cycle is not a problem at the Bayview site, development of the Rippet (expansion), Johnson F-80, Darling, Ordway and Silver Point Quarries would require removal of trees approaching market size. The reclamation plan at the Bayview site will limit any long-term effect of removing land from the County resource base by returning the area back to forest uses after the aggregate is exhausted. Similar reclamation appears to be possible at each of the other sites, with the possible exception of Rippet (expansion), where high faces may make reclamation difficult. An area which contains vegetation that might be found in wetlands has been described at the Bayview site. This type of area has not been described at any of the other sites. However, a condition imposed by the County will require that all the activities at the Bayview site take place above any wetland areas. Square Creek is directly adjacent to the Bayview Quarry site. The Ordway, Silver Point and Forked Horn Quarries do not have a stream in the vicinity. The Necanicum River runs directly through the Johnson F-80 site, and Circle Creek runs directly adjacent to the Rippet (expansion) Quarry. Anadromous fish and cutthroat trout have been identified in the waters adjacent to these areas. Bayview has proposed sedimentation ponds to control any adverse effect on the stream or the fisheries values. This sedimentation control plan has been described by the Oregon Department of Fish and Wildlife as a good plan and is designed to contain a 100-year storm event. All areas, including the Bayview site, are located within elk habitat. No actions will be taken at the Bayview site, such as fencing, which will inhibit the passage or migration of elk through the area. In addition, Bayview has agreed to maintain riparian vegetation setbacks which will both help preserve stream and fish values and enhance elk habitat. After weighing these characteristics and impacts, we find that the Bayview site has significant advantages related to its lack of visibility, its stable geology and lack of timber on the extraction area. A potential disadvantage at

the Bayview site (areas which contain vegetation which might be found in wetlands) has been addressed and mitigated by a condition which is a part of these findings. Stream values, riparian vegetation an fisheries values near the Bayview site will be protected by conditions and setbacks. On the whole, we conclude that the long-term environmental consequences resulting from aggregate extraction use at the proposed site, with measures designed to reduce adverse impacts, are not significantly more adverse than would typically result from the same proposal being located in any of these other sites.

Social Characteristics and Impacts.

Only the Bayview site cannot be seen from adjacent highways. The Bayview, Darling and Forked Horn Quarries are the only sites that cannot be seen by nearby residences. The Ordway Quarry has two residences within 1,500 feet, the Silver Point Quarry can be seen from resort motels, and the Bear Cat Quarry has a residence within 200 feet. The Rippet (expansion) Quarry has residences within 300 feet, and the Johnson F-80 site has several residences within 1,000 feet. Bayview's distance from the nearby residences and highways presents a smaller social impact than is presented at the other quarries. Activity at the Bayview site will be well within the sound limitations imposed by DEQ. In addition, we find that Ecola State Park, which is approximately 11,880 feet south of the Bayview site, is separated from the site by a ridge which will block view and sound. Sound levels from both machinery and blasting at the park will be well below the standards set by DEQ. Bayview has agreed to limit its hours of operation to between 7:00 a.m. and 10:00 p.m. to reduce noise impacts. Other sites, such as Bear Cat, may not be able to meet DEQ standards. A blasting accident has occurred on or near the Johnson F-80 Quarry which placed fly rock on neighboring property. The orientation of the Bayview extraction area is away from nearby residences. Bayview has agreed to maintain all roads in a dust-free fashion, and the crusher proposed for use at the site has all necessary DEQ permits. Prevailing winds will normally take dust impacts away from residences, and Bayview will not operate during December and January when winds might bring dust toward nearby residences. We also find that the Bayview operation may create in-County jobs by reducing imports. Weighing the relative advantages and disadvantages that are presented by each of these sites, we find that the long-term social consequences resulting from aggregate extraction at the Bayview site do not present any particular problems that are significantly more adverse than would occur at other areas. Bayview has several advantages which are not found at other sites. Any potentially adverse problems at Bayview

(i.e., sedimentation) have been addressed with measures designed to reduce adverse impacts. We conclude that the long term consequences of locating the proposed use at Bayview are not significantly more adverse than would typically result in the same proposal being located at any of the other sites.

Energy Characteristics and Impacts.

The Bayview, Rippet (expansion), Johnson F-80, and Darling sites are very near the market area to be served by the proposed use. The Ordway Quarry is 3 miles distant, the Silver Point and Bear Cat Quarries are approximately 6 miles distant, and the Forked Horn Quarry is 13 miles distant. We find that the sites closer to the intended market area enjoy an energy benefit in that additional fuel need not be expended to transport aggregate material. The mechanical extraction of aggregate to be used at the Bayview site would be necessary at any of the other sites and the extraction methods used at any site would be similar to those used at the Bayview site. Weighing these characteristics, we conclude that the long-term energy consequences resulting from aggregate extraction at the Bayview site are not significantly more adversed than what typically result from the same proposal being located at the other sites.

Given the lack of mature trees on the Bayview site, the short-term ability of this site to produce marketable trees is less than other sites under consideration (with the exception of Forked Horn and Bear Cat where no trees are present). Only these two areas where trees are not present would be less productive than the Bayview site in terms of timber production in the short run. The Bayview site, like most of the other sites under consideration, is located in a forest (F-80 or Af-20) Zone. Each of the sites is generally surrounded by forest land. The Darling and Bear Cat Quarries directly adjoin major highways on one side. The Rippet (expansion) Quarry is bordered by a County road on the east, and the Johnson F-80 Quarry is bordered by lowland on the south side of the Necanicun River. Activities on any of the sites will not inhibit the ability to sustain forest resources on adjacent forest lands. We note that at the Bayview site, the proposed quarry layout creates an extraction area with a separate stockpiling area. This will enable forest uses to continue in the space between the two areas. This design feature will help to sustain forest resources near the proposed use. The long-term effect of removing various extraction areas from the timber resource base is not very significantly different between the sites. The reclamation plan at the Bayview site insures that upon the cessation of aggregate activities, the area will be

returned to forest uses. Similar reclamation could be obtained at any of the other sites with the possible exception of the Rippet (expansion) Quarry. We find that none of these sites has a particular advantage resulting from a smaller long-term effect on the forest resource base. We find that Geologist See indicates that the Bayview site will not effect the spring located on the Jensen property. In addition, we find that a condition in the Bayview approval will help preserve any wetland sites that might exist on the site. Bayview has agreed to maintain appropriate setbacks from adjacent Square Creek. We find that because of these factors, the Bayview site will not have any effect on water resources or the water table. Finally, as indicated in the statement of Mr. Perrigo, there will be no need for City services at the Bayview site. In the event the water imported to the site would come from the City of Seaside, we find that Seaside has existing supply lines near the Cannon Beach junction which could supply water, and no new capital construction would be required. Access to the site is gained by private road which will not be maintained at public expense. In addition, we find that access to U.S. Highway 101 is presently undergoing improvements and that no additional expense will be involved in providing access to the major transportation artery in the County.

Standard No. 7.

"The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts." ORS 197.732(1)(c)(D); OAR 660-04-020(2)(d).

The compatibility of the proposed use with adjacent forest and residential uses has been previously analyzed in the County's approval findings from the first hearing dated February 26, 1986 and in Issue No. 7, Part III above. Both analyses are incorporated by reference herein as though fully set forth. Given the findings and conclusions in those analyses, we conclude that this standard has been met.

Standard No. 8.

ORS 197 and OAR Chapter 660, Division 14 require consideration of Goal 5 resources. Resources must be inventoried, conflicting uses must be identified and a program to achieve the goal must be developed. These issues, with respect to the Bayview site, hve been analyzed under Issues Nos. 7 and 8 in Part III above. This analysis is incorporated herein by reference. Given the finding and conclusions in that analysis, we conclude this Standard has been met.

PART V: SUMMARY AND CONCLUSIONS

The County will gain significant economic advantage by allowing the proposed use to proceed. Not only will the proposed site be able to produce materials at a lower cost, but the extistence of an additional independent extraction operation will increase competition in the County and help to reduce the County dependence on imported aggregate supplies. We have examined 15 sites and concluded that the Bayview site presents the largest quantity of high-quality material in the market area which it will serve. The opponents argue that all the alternative sites should be exhausted before a new site is approved. In response, we note that simultaneous use of varied sites across the market area does not allow for business planning and control, nor does it make allowances for future County needs. We find that demand in the market area is 161,000 to 250,000 cubic yards per year and that the alternative sites will provide approximately a 5 to 8-year supply of aggregate. Over two years have passed since Bayview first applied for this land use approval. If it took an additional two years to establish a site for alternative supply, a significant portion of the available rock reserve in the County would be exhausted. Our Comprehensive Plan recognizes that good aggregate sites are rare in Clatsop County and should be developed where possible. Our review of the facts concerning the 15 sites indicates that some of the sites can produce aggregate, but that none of the sites offer the advantages presented by the Bayview site. As such, the Bayview site is a unique combination of quality and quantity of aggregate resource located on forest lands. The short-term extraction of the aggregate resource will displace timber production on the area, but because of the assurances of reclamation at the site, the present use of the site for aggregate extraction does not entail a permanent loss of forest land. By approving the Bayview site, the County is in a position to enjoy the economic benefits of the aggregate resource in the short-term while enjoying the return of long-term forestry use benefits after the reclamation. We also note that approval of the proposed quarry will lessen the County's dependence on the Johnson operation as the sole source for aggregate in the Cannon Beach - Warrenton market area. Certain pricing policies by Johnson have the effect of raising prices to the consumers in Clatsop County. Our own roadmaster is on record as favoring the proposed quarry to increase competition in the aggregate market in the County. We find that approval of this use will lessen the County's dependence on imported aggregate material. We also find and conclude that aggregate extraction is a consumptive use of resources that is necessarily accompanied by impacts, including noise. We find this site is

specially suited, considering the applicant's extraction plan, to reduce the noise impacts. The applicant's proposed use will provide a second source of a necessary commodity in the County. This commodity is not widely available in Clatsop County and is generally available only in forest zones. The commodity will be produced at a lower cost than is presently available in the County. The proposed use will be conducted in an environmentally sound manner that will return the land to forest production once extraction is terminated. The location of the site is away from scenic highways and heavily populated areas. The applicant has taken special steps to design its project so that DEQ noise levels will be met which will lessen or eliminate adverse impacts that might be experienced by neighbors. The applicant has taken special steps to eliminate any adverse impact on fish, wildlife and foresty uses. We conclude that the forgoing reasons justify why the State policy embodied in Goal 4 (to preserve forest lands for forest uses) should not apply to the proposed Bayview site. We find that we have addressed all the appropriate and relevant standards in these findings and that there are no others.

LIST OF EXHIBITS TO FINDINGS

A. Location of Alternative Aggregate Resource Sites (Exhibit 97 of the Record)

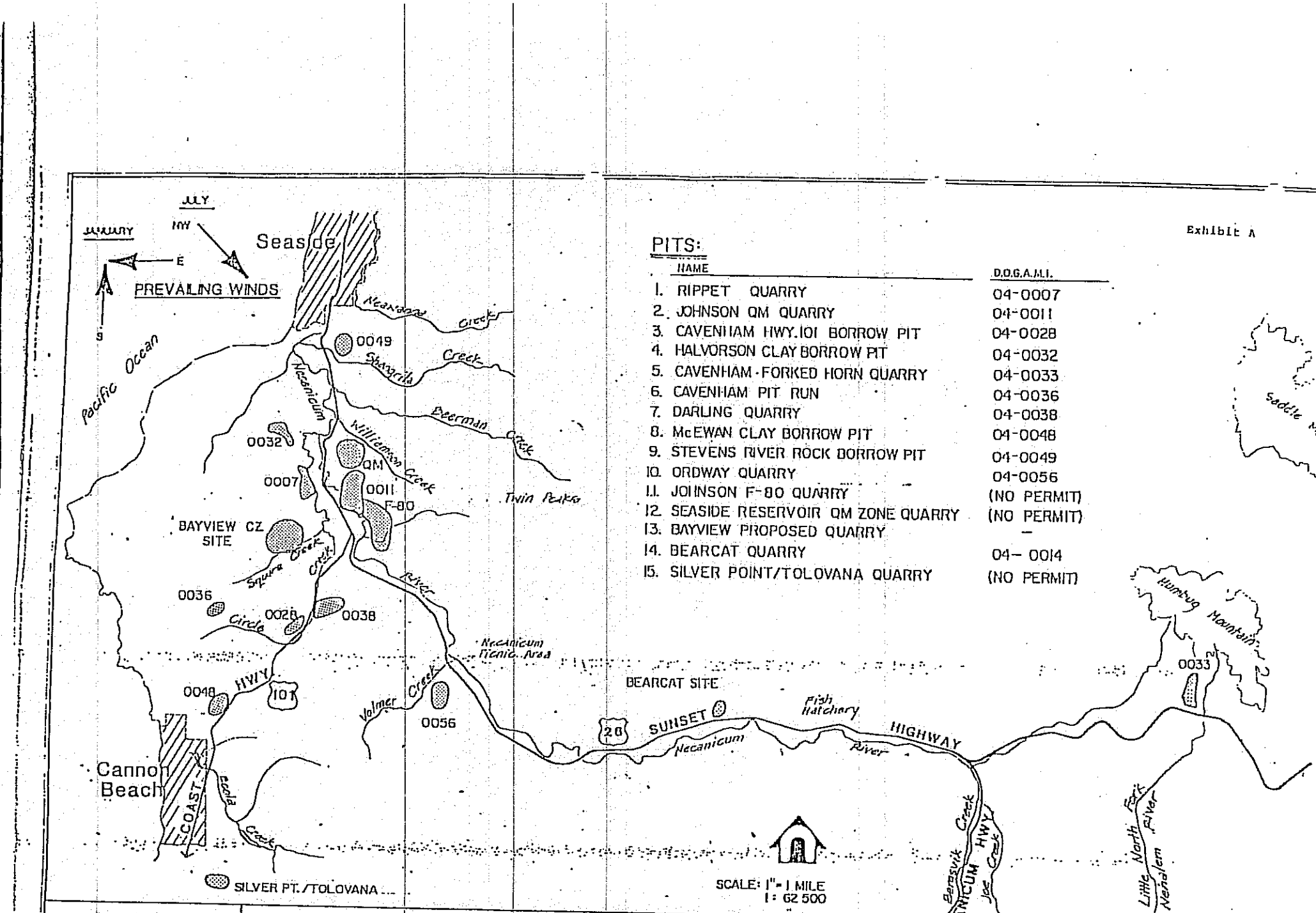
B. Bayview Staged Extraction (Page 2 of Exhibit 93 of the Record)

C. Conditions of Approval (Pp 98-99 of Exhibit 11 of the Record)

D. Summary of Characteristics and Impacts of Uses on Alternative Sites (Exhibit 4 to Exhibit 90 of the Record)

E. Fact Summary, Alternatives/Reasonably Accommodate (Exhibit 3 to Exhibit 90 of the Record)

Exhibit A

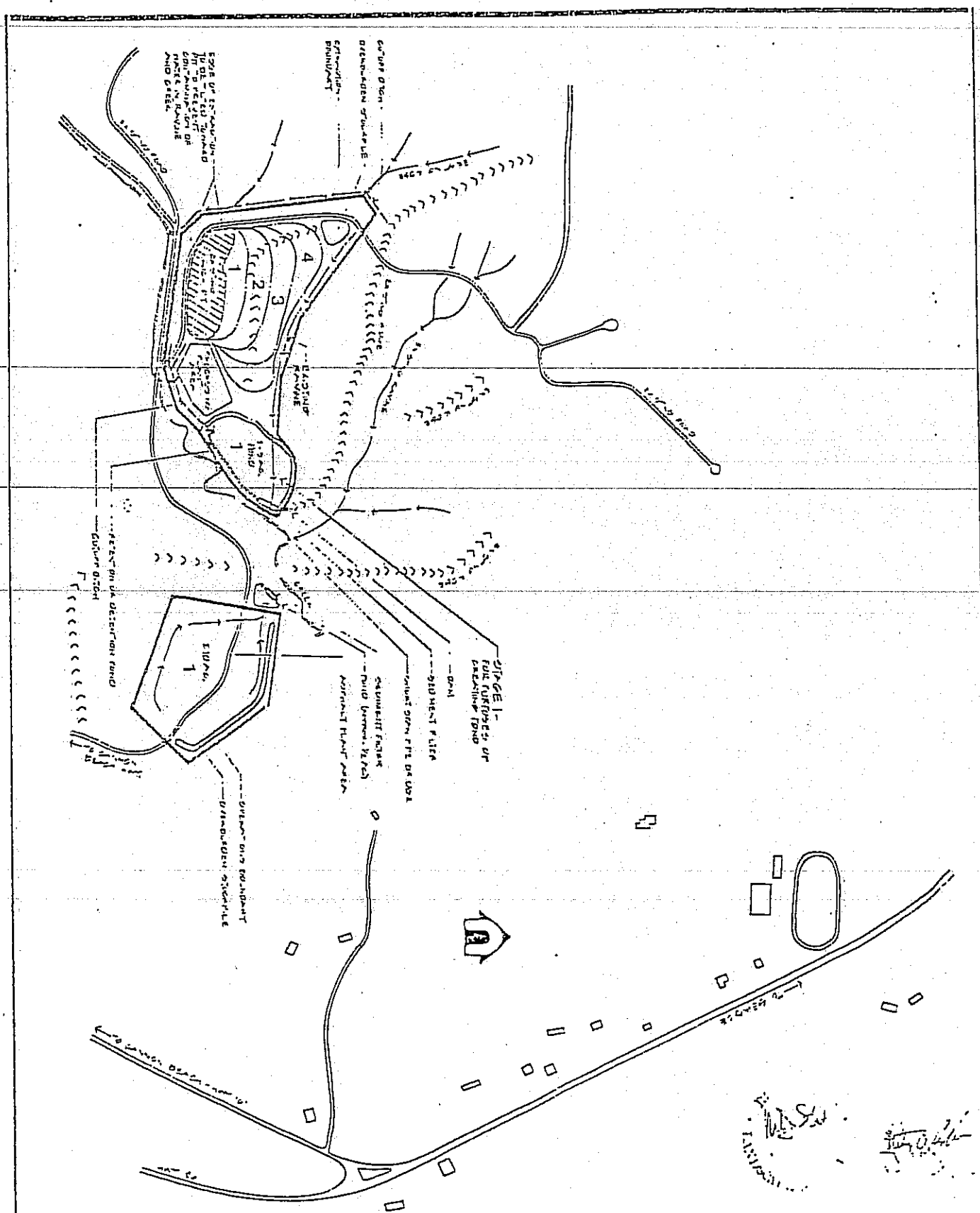


PITS:

NAME	D.O.G.A.M.I.
1. RIPPET QUARRY	04-0007
2. JOHNSON QM QUARRY	04-0011
3. CAVENHAM HWY.101 BORROW PIT	04-0028
4. HALVORSON CLAY BORROW PIT	04-0032
5. CAVENHAM-FORKED HORN QUARRY	04-0033
6. CAVENHAM PIT RUN	04-0036
7. DARLING QUARRY	04-0038
8. McEWAN CLAY BORROW PIT	04-0048
9. STEVENS RIVER ROCK BORROW PIT	04-0049
10. ORDWAY QUARRY	04-0056
11. JOHNSON F-80 QUARRY	(NO PERMIT)
12. SEASIDE RESERVOIR QM ZONE QUARRY	(NO PERMIT)
13. BAYVIEW PROPOSED QUARRY	—
14. BEARCAT QUARRY	04- 0014
15. SILVER POINT/TOLOVANA QUARRY	(NO PERMIT)

EXHIBIT 1

Location of Alternative Aggre[illegible]e Resource Sites



DAVID EVANS and ASSOCIATES, INC.

Staged Extraction Plan

BAYVIEW TRANSIT MIX, INC.

Seaside, Oregon

Exhibit B

PART 3 (16) EXHIBIT NO. 2 260
ALTERNATIVE 2

Staff recommends the follcwinc conditions for approval:

1. Preventative measures shall be taken to assure that excessive noise, dust, vibrations, and other nuisances associated with mining activities are avoided. The applicant shall coordinate with the noise pollution control section of the Department of Environmental Quality to mitigate possible excessive noise emissions from rock extraction and sorting operations. Steps to lessen noise pollution impacts on nearby residential/commercial properties should include time of operations.

2. The proposed use will require protection of water quality in nearby Circle Creek and its tributary creeks. The applicant shall coordinate with the Oregon Department of Fish and Wildlife for proper drainage design from the pit so water turbidity levels are not increased in Circle Creek and Square Creek. Settling basins as well as an upland site to dispose of non-usable material shall be required if pit drainage is directed to Circle Creek.

3. Obtain a valid permit from the Oregon Department of Geology and Mineral Industries for the rock quarry operations and the stock pile site.

4. Rock crushing operation shall comply with Air Contaminate Discharge Permit issued by the State Department of Environmental Quality and Section 3.470 of Clatsop County Ordinance 80-14.

5. State and Federal Permits. Applicants for developments which require a state or federal permit shall submit to the Planning Director a copy of: the complete permit application, other surrounding material

6. All private access and service roads shall be maintained in a dust-free condition during intensive operations.

7. Prior to operations which will result in open excavation with a depth of ten feet or more and a slope steeper than one vertical foot to two horizontal feet and which is located within 100' of a residentially occupied structure, a fence shall be erected at least ten feet outside the edge of the excavation at least four feet in height, to control access to such excavation.

8. No mining or structural improvements shall occur within the riparian setbacks as specified in S4.502. In no case, however, shall the minimum setback from a waterway be less than 25'.

9. Clatsop County Department of Planning and Development shall be notified in advance by the applicant, lessee or purchaser of rock material of the location of any fill or riprap for which the rock or mined material will be used. This condition is limited to all areas identified in the Clatsop County Comprehensive Plan as an Estuarine Resource Coastal Shorelands, Beach and Dune areas and significant wetland areas. All permits required by local, state and federal agencies for fill or riprap must be approved prior to placement within one of the areas identified above.

Exhibit C

10. Reclamation plans for surface mining opeartions must show that they are consistant with the Comprehensive Plan.

11. Provide boundary line surveys of the quarry and stock pile sites for purposes of defining the affected areas proposed to be re-zoned into the QM zone district.

12. Obtain a Clatsop County Land and Water Development and Use permit to validate that conditions 1,2,3,4,5,6,7,8,and 11 have been completed prior to rock extraction and stock pile operations.

13. Obtain a Clatsop County Land and Water Development and Use permit prior to placement of a concrete, ready-mix, or asphalt batching plant.

14. Obtain a Clatsop County Land and Water Development and Use permit for signs, offices, warehouses and maintenance buildings appropriate to uses permitted in the QM zone.

CONDITIONS OF APPROVAL

1. No barriers will be constructed to prevent wildlife migration, unless required by adjacent residential uses.

2. Extraction operations on the site will be limited to the hours of 7:00 a.m. through 10:00 p.m.

3. No extraction activities will occur during the months of December and January.

4. The toe of any development will be located according to regulatory approval to protect wetlands.

5. Rock drilling equipment no louder than 90 dBA [L(50)] will be used at the extraction site.

6. Minimum stream flow for Square Creek needs to be established by the Oregon Water Resources Department. Water in excess of the prescribed minimum streamflow developed by the Water Resources Department shall not be removed from Square Creek.

7. Extraction shall be in accordance with the staged extraction plan as submitted by applicant as printed by David Evans & Associates, Inc. on August 26,1987.

Exhibit D

Site Evaluation Factors / Siting Criteria	Bayview	Bryant 04-0117	Stevens P-40 04-0141	Dalton 04-0138	Delong 04-0154	Richardson 04-0137	Interstate 04-0131 (Closing 11/1991)	Downtown Highway 101 04-0134 (Closed by 11/1991)	Downtown Fair Inn 04-0133 (Closed by 11/1991)	Hilton Clay Street 04-0140	Bayside Mines Park Pit 04-0142 (Closed by 11/1991)	Silver Strand 04-0143	Bayview 04-0144
Zoning	P-40	P-40	P-40	P-40	P-40	P-40	P-40	P-40	P-40	P-40	M-2/LAH	P-40	P-40
Extraction Area Size	20 Acres	5 Acres	Approximately 6 Acres	3 Acres	3 Acres	6 Acres	Several small, non-viable (too many partial pieces	Less than 1 Acre	Less than 1 Acre	Less than 1 Acre	6 Acres	Approximately 1 acre	Approximately 1 acre
Present Extraction Activity	3 Acres	5 Acres	Approximately 1 Acre	3 Acres	3 Acres	6 Acres	None	None	None	None	None	None	None
Environmental Analysis Positive Consequences	- No materials there at extraction site - Run for culvert pipes - Haul to culvert pipes - Only minor disruption (no loss of view) - Only minor disturbance due	- Run for culvert pipes	- Run for culvert pipes - No disturbance	- No residences nearby	- No access nearby	- No slopes nearby - No residences nearby	—	- No residences nearby - No access nearby	- No residences nearby - No access nearby	—	—	- No access nearby	- No slopes at extraction site - Blends with Bayview Jr.
Environmental Investigation Negative Consequences	- Blends nearby - Elk habitat - Possible wetland	- Access - Possible dumps - Blends nearby - Perennial tributaries - Elk habitat - Investigate within 300 feet	- Perennial slopes - Blends nearby - Elk habitat - Visible from Bayview 101	- Perennial slopes - Elk habitat - Forest access (Bayview) - Blends nearby - Mitigate on culvert ponds	- Perennial slopes nearby - Elk habitat - Visible from Bayview Jr. and residences	- Elk habitat - Visible from Bayview Jr.	- Elk habitat - Seepage nearby - Perennial area	- Elk habitat	- Elk habitat	- Elk habitat - Perennial slopes nearby - Visible from Bayview 101 and residences - Residences nearby	- Near city limits - Loss of wetlands area - Perennial wetlands - Ground water table 5 to 5 feet - Blends nearby, good on site - Investigate all commercial buildings within 150 feet	- Visible at extraction site - Wetlands - Visible from exist. corridor and beach access - Elk habitat	- Adjacent to Bayview Jr. - Non-flume within 200 feet - Elk habitat
Economic Analysis Positive Consequences	- Site area - 1.5 to 2.0 million good quality - Lowest (1st, 2) - Close to market - Low - Low overall condition in local area - Low road for short haul	- Site area - Close to all areas	- Site area - Close to all areas	- Close to all areas	—	- Site owned by user	—	—	—	—	- Site owned by user.	—	—
Economic Analysis Negative Consequences	- None	- Reduction of area (Phase) - 20,000 cubic yds (one additional with removal) - Potential flow-through access (Phase) for processing - Established pedestrian patterns - Holiday recreation processing - Market capacity	- Reduction - Limited quality 30,000 cubic yards - Capacity on site	- Marginal site quality - Limited quality 100,000 cubic yards No stockpile area	- Site spec. site - Limited quality 150,000 cubic yds - 3 main streets - Site preparation costs (dirty access)	- Limited channel (stock market) - Limited quality 100,000 cubic yds	- Clay access not work (poor) - No access	- No commercial quality of rock - Highway design	- No commercial quality of rock - Highway design	- No commercial quality of rock - Small size 1 acre	- Unsuitable near valley - Processing required - Limited quality 65,000 cubic yds.	- Limited channel - Limited quality (Bayview/Bayview Jr.) - Limited quality 100,000 cubic yds.	- Limited channel - Limited quality of rock
Social Analysis Positive Consequences	- Previously site by mining people - Not visible from highway - Minimum residents not at source (within 300 feet. - Not visible from residences - Good Bayview Jr. access	—	—	- No residences nearby	—	- No residences nearby	—	- No residences nearby	- No residences nearby	—	—	—	—
Social Environmental Negative Consequences	- Nearest residence 300 feet - Blasting may be needed	- Safety hazard w/ highway - 7 houses within 300 feet - Heavy visible (for 101 and 3) - Less traffic (Bayview 101) - Land use conflict (single visitor) - Blasting necessary - 101 access on site	- Fly rock problem - Noise 7 times within 1,000 feet - Similar park and 7 times within 1,000 feet - Visible from homes and highway 101 - Land use conflict (single visitor) - Blasting necessary - 101 access on site	- Visible from access highway - Poor quality impacts	- 7 residences within 1,000 feet - Visible from highway 3A and residences	- Visible from highway 101 - Poor visual impact back	- Residences nearby	- Visible from highway 101 to mirror corridor	—	- 1 residence 700 ft - 12 residences within 1,000 feet - Visible from Bayview 101 scenic corridor	- None, landscape, properties within 300 feet - Loss of near city limits	- Visible from Bayview Jr. highway - Visible from great area - Existing dumps (homes, transportation artery - Overpass nearby - Residences within 1,000 feet	- Residences within 300 feet - Directly adjacent to highway
Energy Analysis Positive Consequences	- Close to market area - Diesel processing without transport	- Close to market	- Close to market - Diesel processing up transport	- Close to market	—	—	—	- Close to market	- Close to market	—	- Close to market	—	—
Energy Environmental Negative Consequences	- Blasting may be needed	- Several times transportation for processing - Blasting necessary - Reduction applied to proposed site	- Blasting necessary - Reduction applied to proposed site	- Reduction similar to proposed site	- Slightly further (increase) - Site preparation and processing dirty rock	- Rate fuel used to manufacture - Reduction similar to proposed site	- Reduction similar to proposed site	- Reduction similar to proposed site	- Reduction similar to proposed site	- Reduction similar to proposed site - Similar distance	- Overpass may be necessary - Blasting may be necessary	- Similar distance - Reduction similar to proposed site - Blasting necessary	- Similar distance - Reduction similar to proposed site - Blasting necessary
Water Table Impacts	- None	—	—	- Possible stream alteration	—	—	—	—	—	—	- Extraction requires groundwater control	—	—
Measures Designed to Reduce Impacts	- Align pass culvert pipes - Reclamation costs none - 50' setback from adjacent - Minimize barriers - Road have traversal between 3 regions areas - Extraction activity difficult to non-wetland areas	—	—	- Realign to culvert pipes	—	—	—	—	—	—	—	—	—

Sources: Lowell, "Bayview Transit Mix Evaluation Report" (July, 1987) (Including Update)
David Evans & Assoc., "Compatibility Study, etc." (1987) (Including Update)
Fee, "Geological Assessment" (July 10, 1987) (Including Update)
Cumble, "Feasibility Bayview Transit Mix Quarry" (July, 1987) (Including Update)
Stanilee, "Sound Analysis" (August, 1987)
Schlicher, "Geologic Reconnaissance" (August 6, 1987)
Bellsom, "Investigation of Bayview Transit Mix Quarry" (August 11, 1987)
Davis, "Noise Impact Analysis (August, 1987)

Exhibit E

FACT SUMMARY

ALTERNATIVES/"REASONABLY ACCOMMODATE"

	Bayview	Johnson QM	Johnson Rippett (No Expansion)	Seaside Reservior QM Zone
DOGAMI No.	Pending	04-0011	04.0007	None
Rock Quality	OK	OK	OK	OK
Commercial Rock Quantity (Cubic yards)	1.5 to 2.0 Million	70,000* (215,000 w/below-level extraction)	250,000*	1 Million
Transportation (stock pile to Cannon Beach Jct.)	1.2 mi.	.75 mi.	1 mi.**	.75 mi. (if access allowed through Johnson)
Overburden Depth	Minimal (10-15 ft)	Minimal (15-20 ft)	Possible problem	Problem 20-30 feet)
Reasonableness of Reclamation	OK	Difficult	Problem	-
Residence/Distance (in feet) from Crusher or Mining	1/2400	1/200 6/400 4/1000 Riverside Trailer Park/300	2/3-400 1/700 1/800	Riverside Trailer Park/350* 3/adjacent* 1/600*
Acreage Available	30	16.3	5	±2.79
Present acres used	3	15+	5	None
Zoning	F-80	QM	F-80	QM
County permit	Pending	Authorized	Nonconforming use (no expansion)	No permit
Economics	Low cost $4.30	High price $6.00* Cost increase if below-level extraction occurs)	High price $6.00*	Overburden problem High price if developed by Johnson
Other Problem	DEQ noise levels met	1.5 to 1 slope difficult Blasting impacts	High face 1.5 to 1 slope difficult Cross 101 on curve eyesore/screening/ material is trans-ported for processing	Landowner reluctance Sole water source Seaside Reservior* 2 water transmission pipes on site, Cannot meet DEQ noise*

* The main reasons for eliminating the pit
** If crushed at QM add .2 mi.
\- means information not available

Sources: mpi, "Bayview Transit Mix Evaluation Rep ," (July, 1987) (including update)
vid Evans & Assoc., "Compatibility Stud tc," (1987) (including update)

Exhibit 3

ALTERNATIVES/"REASONABLY ACCOMMODATE"

	Bayview	Johnson QM	Johnson Rippet (No Expansion)	Seaside Reservior QM Zone
DOGAMI No.	Pending	04-0011	04-0007	None
Rock Quality	OK	OK	OK	OK
Commercial Rock Quantity (Cubic yards)	~~2.5~~ ~~2.4~~ Million	70,000* (215,000 w/below-level extraction)	250,000*	1 Million
Transportation (stock pile to Cannon Beach Jct.)	1.2 mi.	.75 mi.	1 mi.**	.75 mi. (if access allowed through Johnson)
Overburden Depth	Minimal (10-15 ft)	Minimal (15-20 ft)	Possible problem	Problem 20-30 feet)
Reasonableness of Reclamation	OK	Difficult	Problem	-
Residence/Distance (in feet) from Crusher or Mining	1/2400	1/200 6/400 4/1000 Riverside Trailer Park/300	2/3-400 1/700 1/800	Riverside Trailer Park/350* 3/adjacent* 1/600*
Acreage Available	30	16.3	5	12.79
Present acres used	3	15+	5	None
Zoning	F-80	QM	F-80	QM
County permit	Pending	Authorized	Nonconforming use (no expansion)	No permit
Economics	Low cost $4.30	High price $6.00* Cost increase if below-level extraction occurs)	High price $6.00*	Overburden problem High price if developed by Johnson
Other Problem	DEQ noise levels met	1.5 to 1 slope difficult Blasting impacts	High face 1.5 to 1 slope difficult Cross 101 on curve eyesore/screening/ material is transported for processing	Landowner reluctance Sole water source Seaside Reservior* 2 water transmission pipes on site, Cannot meet DEQ noise*

* The main reasons for eliminating the pit
** If crushed at QM add .2 mi.
- means information not available

Sources: Lampi, "Bayview Transit Mix Evaluation Report" (July, 1987) (including update)
David Evans & Assoc., "Compatibility Study, etc." (1987) (including update)
See, "Geological Assessment" (July 10, 1987) (including update)
Gamble, "Feasibility Bayview Transit Mix Quary" (July, 1987) (including update)
Standlee, "Sound Analysis" (August, 1987)

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EXHIBIT "A"

Part 1. Resolution (88-3-3) Planning Commission Decision

Delete reference to Tax lot 100 as part of the Comprehensive Plan/Zone Change and Exception. It was withdrawn by the applicants at the February 16, 1988 Planning Commission meeting.

88-3-3

IN THE PLANNING COMMISSION

OF CLATSOP COUNTY, OREGON

IN THE MATTER OF PETITION NO. _____ FOR AMENDMENT OF THE ZONING MAP (CHANGE IN ZONE) OF CLATSOP COUNTY BY H.F. Johnson & Sons, Granting THE APPLICATION AND ADOPTING CERTAIN FINDINGS	))))))	RESOLUTION RECORDING DATE: MAR 9 1988

THE ABOVE ENTITLED MATTER having come on regularly before the Planning Commission at its meeting(s) of February 16, and March 8, 1988 ; and

IT APPEARING to the Planning Commission that the above named petitioner applied to the Planning Comission of Clatsop County for an amendment to the zoning maps of Clatsop County (change in zone) on certain real property described in Exhibit "A", attached hereto and by this reference made a part hereof, pursuant to Article 5, Section 5.400, of the Clatsop County Land and Water Development and Use Ordinance #80-14, which said petition is now before the Planning Commission for public hearing and final order; and

IT APPEARING to the Planning Commission from the testimony, reports, and information produced by the petitioner, interested parties, the Planning Director and the Department of Planning and Development staff, that said petition should be (granted); and

IT APPEARING to the Planning Commission that the findings of the (Planning Commission) (and) (Department of Planning and Development) should be adopted as the basis for the Planning Commission's decision, and the Planning Commission being fully advised in the premises; it is, therefore

RESOLVED that the petition to which reference was hereinabove made is (granted) and the findings of the (Planning Commission) (and) (Department of Planning and Development) as described in Exhibit "B", attached hereto and by this reference made a part hereof, are adopted; and it is further

RESOLVED that the County Clerk, be, and hereby is, directed to enter the appropriate notation on the official zoning maps of Clatsop County, showing that the property subject to this zone change (if approved), Exhibit "A", attached hereto, has been changed in zone from RA-5 and F-80 to QM (Quarry & Mining), according to the Land and Water Development and Use Ordinance #80-14 of Clatsop County and the rules and regulations of this Commission.

DATED this 9th day of March, 19 88.

PLANNING COMMISSION
FOR CLATSOP COUNTY, OREGON

BY Raymond Pfeil
Chairman

BY Curtis Schneider
Secretary

EXCEPTION STATEMENT FOR JOHNSON QUARRY,
TOWNSHIP 5 NORTH, RANGE 10 WEST, SECTION 4 W.M.
TAX LOTS 100, 101 AND 301

X

A. Introduction.

This document sets forth the exception for property owned by Howard E. Johnson & Sons, Inc. ("Johnson") located in T5N, R10W, Sec. 4, W.M., Tax Lots 101 and 301. This property is immediately adjacent to Tax Lot 200, which is one of the five sites originally zoned QM (Quarry and Mining) by Clatsop County. This exception is taken pursuant to action by the county to provide one unified document addressing all QM-zoned sites within the county. That document includes exceptions for the five original QM-zoned sites, the Bayview site, and this site. This exception redefines the boundaries of the Johnson site to be consistent with the Johnson ownership, excepting one 12.44 area (Tax Lot 100), which will remain zoned RA-5. When the county originally zoned a portion of the Johnson site for Quarry and Mining, it had then intended to include all of the Johnson ownership, but by a mistake a portion of that ownership was excluded. As a result, the county must now take an exception pursuant to Goal 2, Part II and ORS 197.732(1)(c) and also show compliance with other applicable LCDC goals and Clatsop County Comprehensive Plan provisions.

B. Nature of Action.

This Statement supports legislative action by Clatsop County to establish a unified document containing all sites zoned QM within the county. That action consists of the

following steps:

1. Adoption of a built/committed exception for the five original QM-zoned sites.

2. Incorporation of the reasons exception for the Bayview Transit Mix site.

3. Adoption of a reasons exception redefining and expanding the boundaries of the Howard E. Johnson & Sons site to include other portions of the Johnson ownership as was originally intended by the county.

The redefinition and expansion of the boundaries of the Johnson QM site was ordered by the Clatsop County Planning Commission as part of a larger legislative action to unify the exceptions document for sites zoned QM.

C. Site Description and Background.

The Johnson site is located on the east side of U.S. Highway 101, approximately 0.75 miles north of the intersection of U.S. 101 with the Sunset Highway (Highway 26). The poJohnson site consists of four parcels:

1. Tax Lot 301, 10.45 acres, zoned F-80.

2. Tax Lot 200, 16.30 acres, zoned QM.

3. Tax Lot 101, 2.06 acres, zoned RA-5.

4. Tax Lot 100, 12.44 acres, zoned RA-5.

Tax Lot 301 is designated Conservation Forest Lands. Tax Lots 100 and 101 are designated Rural Lands. This exception provides the support for the redesignation of these lands to Conservation Other Resources and the rezoning of these lands to

Quarry and Mining.

Aggregate mining operations have been ongoing at the Johnson site for over 20 years, principally on Tax Lot 200. The site provides one of the primary sources of aggregate to the western portion of Clatsop County. Geologic studies and test drillings indicate that the primary basalt deposit continues to the south and east of the present mine. In the early 1980's, the Johnsons acquired the adjacent 10.45 acres (Tax Lot 301) to allow a continuation of their mining operation.

Clatsop County was completing its inventories required under the statewide planning goals during the time the Johnsons acquired Tax Lot 301. The Johnson quarry was identified in those inventories as an aggregate mine to be protected under the county's QM zone. It was intended that all of the Johnson property be protected by QM zoning, but as final zoning maps were later prepared, the QM zone was applied only to Tax Lot 200. It was not until Bayview Transit Mix, Inc. ("Bayview") submitted its application for a plan amendment and zone change that this oversight was discovered.

D. Reasons Necessary to Justify Exception to Goal 4.

1. Introduction.

The Johnson F-80 property (Tax Lot 301) is forest land designated for forest use. A recent amendment to LCDC's rule governing forest lands would allow aggregate mining activities to occur on this site without the need to take an exception to Goal 4. This exception is taken because the

validity of the amendment to the rule remains in doubt.

It is anticipated that the majority of future mining operations at the Johnson site will occur on the F-80 property. Future mining will move easterly from the present QM site onto the F-80 property, with the quarry floor remaining at approximately 45 feet mean sea level. Only after both the present QM and the F-80 properties are fully mined is the operation likely to begin extraction below the present quarry floor.

The Johnson RA-5 property (Tax Lots ~~100 and~~ 101) is rural land for which a built and committed exception previously was taken in 1983. Use of this site for mining became nonconforming in 1966, when the site was zoned R-A (Residential-Agricultural). The site is utilized for purposes related to the Johnson operation and is committed to such use. Notwithstanding that fact, the county will take a reasons exception for that site as well.

It is anticipated that the RA-5 site will be used primarily for maintenance and support facilities and stockpiling of overburden materials.

OAR 660-04-022 identifies the types of reasons that may or may not be used to justify an exception. Pursuant to the rule, the county must (1) demonstrate need for the proposed use or activity, based on one or more requirements of Goals 3 to 19; and (2) show either that the use has special features which require it location on or near the proposed site, or that

a resource upon which the activity is dependent can be reasonably obtained only at the proposed site and it requires a location near the resource. Such an exception must include an analysis of the market area to be served by the activity.

2. Demonstrated Need.

In its findings approving an exception for the Bayview site, the county considered the need for additional sources of aggregate for a 20 year period. Such a need is recognized by LCDC Goal 5. The county looked specifically at the Cannon Beach to Warrenton market area, which is the same market area served by the Johnson site. The county heard testimony from experts and received information on the amount of rock currently mined in or imported to this area. The county concluded that an accurate estimate of aggregate demand in the market area must include all sources, including aggregate that is imported into the county (including round rock), aggregate used for nonforest uses, and aggregate used for forest uses. The county determined that the average annual demand in the Cannon Beach to Warrenton market area lies between 161,000 and 250,000 cubic yards. Findings, 5a. The county continues to accept this estimate of demand as accurate. The county also accepts (except as noted to the contrary below) its findings for the Bayview exception as additional and further justification for an exception to the Johnson site, and it incorporates by reference the Bayview exception and findings in their entirety as if fully set forth

herein. Moreover, the county expressly makes the record of the Bayview proceeding part of the record of this proceeding. The county further supplements that record with the materials submitted by applicant Johnson in a request for a conditional use permit for the above-identified Johnson parcels.

In the Bayview findings the county examined aggregate supply for this market area. In those findings the county considered aggregate resources at a variety of locations within the market area. The county first considered three sites -- the Johnson QM property, the Johnson F-80 property, and the Rippet Quarry -- containing commercial quality aggregate. The county found that the Johnson QM site had only 70,000 cubic yards of material located above the floor of the quarry (p. 7); the Johnson F-80 site contained 300,000 cubic yards available for extraction (p. 8); and the Rippet Quarry contained 244,000 cubic yards of aggregate material (p. 8). Based on demand, the county determined that these three sites represent only a 2 1/2 to 4 year supply (p. 7, 11). Mining below the floor of the Johnson QM quarry might produce about one more year's supply (p. 7).

The county, in its Bayview findings, also identified other quarries within the market area. The Darling Quarry contains approximately 100,000 cubic yards of material available for excavation, but tests showed that this rock is only marginally acceptable (p. 13). Material from the Darling Quarry was recently rejected by the Oregon State Department of

Transportation, Highway Division, because it did not meet specification. The Ordway Quarry contains approximately 160,000 cubic yards, but this rock, too, failed standard tests which aggregate must pass to be used in Oregon State Highway projects (p. 14). The county finds that the need for rock in the county is predominantly a need for commercial quality rock that is acceptable for projects such as Oregon State Highway projects.

Other quarries include Cavenham Highway 101 (DOGAMI 04-0028), Halvorsen Clay Borrow Pit (04-0032), Cavenham Pit Run (04-0036), McEwen Clay Borrow Pit (04-0048) and Stevens Rock Borrow Pit (04-0049). In its findings on Bayview's application, the county determined that Cavenham Highway 101, Cavenham Pit Run, and the McEwen Pit have no commercial quality rock; that the owner of the Halvorsen pit no longer considers the site to be a potential rock quarry and has forfeited access rights to the road which serves the site; and that the Stevens Pit contains 45,000 cubic yards of material, which is less than a 1/3 year supply (pp. 14-15). The county continues to abide by these findings.

Remaining sites identified in the Bayview findings are the Bear Cat Pit, Seaside Reservoir QM, the Forked Horn Quarry, Silver Point, and, of course, the Bayview Quarry. The Silver Point site has no DOGAMI permit (p. 36). The Forked Horn Quarry contains approximately 100,000 cubic yards of material -- about a 4 to 7 month supply. The Bear Cat Pit

contains approximately 148,000 cubic yards -- less than a one year supply (p. 37). The Seaside Reservoir contains a significant amount of rock (1,000,000 cubic yards), but for reasons explained in the Bayview findings, negative factors associated with the site render it unreasonable to accommodate the use. Findings, 37-38.

The county concluded in its Bayview findings that the Bayview site would likely produce between 1.5 and 2.0 million cubic yards of commercial quality aggregate material over a 20 year period. Findings, 11, 19-20. Those findings were based on the record before the county, which the county determined was not as precise as it might have been on this issue (p. 19a). More recent information from H. G. Schlicker & Associates, Inc., attached to Johnson's conditional use request, suggests that the estimates of rock quantity at the Bayview site are somewhat lower when the assumptions utilized by Bayview's experts undergo further refinement. Reevaluating the potential supply at the Bayview site using refined assumptions, including assumptions on the depth of overburden, the amount of material needed for reclamation, and the intermixing of sediments in the material under the overburden, Schlicker determined that the Bayview site contains between 1.1 and 1.3 million cubic yards of aggregate material. Based on Schlicker's testimony and the earlier testimony in the Bayview record, the county finds that the Bayview site most likely contains between 1.1 and 1.3 million cubic yards. We also find

that a precise figure is not necessary because, regardless of which figure is used, there is need for the rock on the Johnson property, in addition to the rock on the Bayview site, within the planning period.

As noted above, the county estimates its need for aggregate over the next 20 years, in the Cannon Beach to Warrenton market area, at between approximately 3.2 and 5.0 million cubic yards. The 3.2 million cubic yard figure is clearly conservative (See Bayview findings, pp. 5-5a). The 5.0 figure reflects expert testimony in the Bayview record and is likely the more realistic figure. In any event, as described below, the current availability of aggregate material in this market area of the county is considerably below the minimum figure and reflects a demonstrated need to provide additional sites containing significant quantities of commercial quality aggregate material. Because of significant negative factors, including DEQ noise standard violations and potential contamination of Seaside's water supply, the county finds, as it did in the Bayview application, that the Seaside Reservoir QM site cannot reasonably accommodate the use, and therefore its rock reserves cannot presently be considered as available for meeting the demonstrated need. See Bayview Findings, 35-36, 41. Excluding this site, and excluding for now the Johnson F-80 site, this means that approximately 1.97 to 2.17 million cubic yards of material are presently available for this market area. This figure breaks down as follows:

Darling	100,000	cubic yards
Ordway	160,000	" "
Stevens	45,000	" "
Forked Horn	100,000	" "
Bear Cat	148,000	" "
Bayview	1.1 - 1.3 mil.	" "
Johnson QM	70,000	" "
Rippet	244,000	" "
TOTAL	1.967 to 2.167 million	cubic yards

If rock not of commercial quality is removed from this chart, the quantity is decreased by 260,000 cubic yards. If rock below the floor of the Johnson QM site is added to the chart, (the extraction of which could bear considerable expense), the amount is increased by 221,000 cubic yards. The county finds that the need is for commercial quality rock. It also finds that the quantity of rock from these identified sites is approximately 1.0 to 2.8 million cubic yards below the county's need for the next 20 years.

Accordingly, the county concludes that existing rock quantities are adequate only to meet the market area's needs for what may be a period as short as eight years. The county further concludes than an additional long term source of high quality commercial rock is needed to ensure adequate quantities of rock for the planning period. The county finds that the Johnson site provides such a source of rock.

According to Schlicker, the Johnson F-80 site contains 772,000 cubic yards of rock above the quarry floor, plus 762,000 cubic yards of rock below the quarry floor. The

county accepts these figures and finds that the Johnson site will provide the type and volume of high quality rock needed by the county for the planning period.

The county also finds, as it did with the Bayview site (pp. 11-12), that increased competition in the aggregate industry would be good for the county. The Johnsons have been providing aggregate to Clatsop County for many years, and the continuation of their operation is in the best interests of the county. Without this exception, the remaining rock available for the Johnsons to mine is very limited and the ability of the county to maintain competitive prices through competition is jeopardized.

The county also finds that Schlicker's determination, which the county accepts, that the rock at the Bayview site may not be of uniform quality means that the prices which Bayview must ask for its rock may be somewhat higher than indicated in the county's Bayview findings. The county makes no findings on what Bayview or Johnson are likely to charge for their rock, but instead finds that presence of these operations should help keep prices competitive.

3. Location of Use.

The use involved here is an aggregate operation. The use is necessarily site dependent, i.e., it must be located at a location where rock is found. The location of high quality aggregate material on the Johnson site, including the F-80 site, necessitates the allowance of this use on resource land.

The county finds that expansion of the operation onto the F-80 property will not require new equipment or operational changes. The county also finds that such use is not appropriate within urban growth boundaries due to the nature and impacts of the use.

E. Areas Which do not Require a New Exception Cannot Reasonably Accommodate the Use.

The inability of other sites within this market area to accommodate the use was fully addressed in the county's findings for the Bayview site (pp. 35-48). Rather than repeat those findings here, the county incorporates them by reference (except as expressly noted below) as if fully set forth herein. The county continues to abide by those findings, except as they relate to the Johnson F-80 site and to Johnson pricing policies for sale of aggregate.

Sites that do not require a new exception are the Johnson QM site, the Seaside Reservoir site, and the Bayview site. In addition to the findings contained in the Bayview exception, the county finds that the Johnson QM site has only 70,000 cubic yards of material remaining above the quarry floor, plus 221,000 cubic yards in reserves below the quarry floor. This quantity of rock is not sufficient to meet county needs for the planning period. The county continues to find that the Seaside Reservoir site is not an adequate choice for a rock quarry due to the close proximity of residences (immediately adjacent to the zone), a trailer park within 350 feet of the zone, the

inability of the site to meet DEQ noise standards, and the possibility of contamination of Seaside's sole water source (a matter of deep concern to the city). Moreover, the landowner of the property has stated that the property will not be considered for a quarry and mining. (Bayview Findings, 37-38.) The county continues to find that this site cannot reasonably accommodate the use.

The Bayview site has been shown to contain between 1.1 and 1.3 million cubic yards of aggregate material. This site is important to help meet the needs of the county over the planning period, but the quantity of rock contained therein is insufficient by itself to meet expected annual demand over the planning period, as explained above. Hence, the county finds that the Bayview site cannot reasonably accommodate the use due to insufficient quantity of rock.

The standard in OAR 660-04-020(2)(b) refers to areas "which do not require a new exception." All other sites previously identified in this document would require a new exception, although some sites, as noted in the Bayview findings, might qualify as nonconforming uses. In any event, it has already been shown that the quantity of commercial quality rock available at those other sites is insufficient to meet the demand for rock in the market area. Consequently, for this reasons and for the reasons contained at pages 35 - 43 of the Bayview findings, excluding those portions discussing the Johnson F-80 property and Johnson pricing policies, the county finds that those other sites cannot reasonably accommodate the

use.

Maps of the locations of other sites mentioned in this document are part of the record of the Bayview proceeding and are expressly incorporated into this document by this reference.

OAR 660-04-020(2)(b)(B)(i) also requires the county to consider whether the proposed use can be located on nonresource land that would not require an exception. Those sites include the Johnson QM site, the Seaside Reservoir site, the Bayview site and the Stevens River Rock Borrow Pit, which is located in a lake and wetland zone. The county incorporates by reference and adopts its findings for the Bayview exception with respect to these sites (pp. 43, 44-46), except as they relate to Johnson and Bayview pricing for materials. The county expressly notes and finds that a large portion of the Stevens River site has been identified as significant wetlands in the County's Goal 5 inventory and that rock extraction is incompatible with wetlands so identified as significant. The county notes and finds that the quantity of material available at the Bayview site is insufficient to meet the need for the 20 year planning period, and that the county already determined the importance of maintaining competition in the sale of aggregate to ensure competitive pricing. The county concludes that the proposed use cannot reasonably be accommodated on these sites, particularly given that aggregate extraction is a consumptive use and these sites do not contain sufficient materials to

accommodate the county's identified need.

Finally, LCDC's administrative rule requires the county to determine if the proposed use can reasonably be accommodated on resource land that is irrevocably committed to nonresource uses, not allowed by the applicable goal, by increasing the density of rural lands, or through placement within an urban growth boundary. The county adopts and incorporates by reference the findings on this matter set forth at pages 46-48 of the Bayview findings.

F. ESEE Consequences Resulting from Aggregate Activity at the Proposed Site, With Measures Designed to Reduce Adverse Impacts, are not Significantly More Adverse Than Would Typically Result from the Same Proposal Being Located in Areas Requiring a Goal Exception Other Than the Proposed Site.

1. Impacts at Proposed Site.

As noted earlier, the majority of future mining operation at the Johnson site would extend eastward from the present QM site onto the F-80 site. The RA-5 property will provide support functions. No new facilities are required for the continuation of the operation onto the RA-5 and F-80 properties. The Johnsons have indicated, and the county finds, that only approximately 4.1 acres of the F-80 property is expected to actually be used for the active mine area. The active quarry pit is not expected to get closer than 150 feet to the bank of the Necanicum River, which flows through the property.

Johnson has stated, and the county finds, that no new

equipment or operational changes will be required to continue the aggregate mining operation into the F-80 area. As mining operations move eastward, the existing crusher location will also be moved generally in an eastward direction onto the F-80 site. Stockpiling and other related activities will continue much as in present operations.

(a) Environmental Consequences.

Environmental consequences at the proposed site include potential impacts on water quality, forest resources (including aesthetics) and wildlife.

Water will drain from the quarry site through a series of siltation ponds and then ultimately discharge into the Necanicum River, a Class I stream. As the operation moves eastward, drainage flows will continue to be channeled into the present system of siltation ponds. This system is providing adequate settling opportunities for drainage and runoff and protects the aquatic resources of the Necanicum River. Regular consultation with Oregon Department of Fish and Wildlife ("ODFW") officials will insure that water quality of drainage and runoff discharges from the operation remains or exceeds present levels.

Expansion of mining operations will produce a less aesthetically pleasing appearance on the site. However, impacts will be screened. A fringe of alder trees and other existing riparian vegetation will be maintained along the Necanicum River, and no mining or stockpiling or other

aggregate-associated activities will be allowed to occur within these areas, thereby further protecting water quality as well as appearance. Areas not actively mined will be maintained in their present condition. At such time as the operation nears completion, the mine will be reclaimed in accordance with a reclamation plan required and approved through the Department of Geology and Mineral Industries.

The current mining operation is located approximately 1000 feet east of U.S. 101. A portion of that operation includes stockpiling of material on a small parcel of land between the operation and Highway 101. When the operation moves fully onto the F-80 property, the active face of the mine will be approximately 1500 feet from the highway. The actual mining will remain partially visible from the highway, although better screened than the present mine.

The F-80 property has been designated as a forest zone by the county. This exception will redesignate the property as Conservation Other Resources. The impact of this change from an environmental standpoint, in terms of loss of the timber resource, is not significant because only a small portion of the timber resources that once existed on this site still remains. The site contains no significant forest resources and has been substantially altered in its ability to be used for the production of trees or other forest products.

Both the RA-5 and F-80 properties lie within the Peripheral Big Game Range classification of the county's

comprehensive plan. The number of elk estimated within a four square mile area surrounding the F-80 site is on the order of a couple of hundred animals. ODFW does not consider the site to be important big game habitat. The nearest bald eagle nest is at least 1.5 miles from the site. Adoption of this exception will not affect known sensitive nesting areas.

The site contains no significant natural, scenic or scientific areas. No hazard to the stability of adjacent lands has been shown, and the county finds none.

(b) Social Consequences.

The most significant potential social impacts are visibility and noise from mining operations and truck traffic. The Johnson F-80 site, on which the mining would occur, has seven homes within 1000 feet. While the continuation of the operation will not increase the number of dwellings in the area, its eastward expansion will shift the operation further away from the existing residences.

Visibility impacts have been identified above. As the operation moves eastward, those impacts will diminish. The same holds true for noise impacts.

All equipment will be maintained to insure proper functioning and minimized noise levels. The present stockpile of overburden material on a portion of the RA-5 property will be increased in height as the mining operation proceeds to add to its effectiveness as a noise barrier. Further, temporary noise barriers will be used whenever other noise mitigation measures and barriers are not adequate to

maintain required noise levels for particular operations.

With proper mitigation measures, the county finds that the site will meet state noise standards. There is little noise impact under present operations, as residents complain mostly about noise from Highway 101. Future noise impacts should stay approximately the same or lessen as the gravel crusher and auxiliary equipment are moved to the east.

No additional truck traffic is expected from the continuation of the operation. No additional roads will be constructed. Assuming that demand does not significantly increase over present levels, there should be no increase in truck traffic on the property above current levels. Continuation of mining activities on the site will not require a change to the present access point onto Highway 101 nor the development of new transportation or access facilities.

(c) Economic Consequences.

The proposal will have positive economic impacts for the county. First, the site has served as a primary source of aggregate resources for this portion of the county for over 20 years. Continuation of the site for aggregate use will provide continued employment and aid the economy of the county.

As noted above, there is insufficient land zoned QM or otherwise available for extraction to meet the needs for aggregate material over a 20 year period in the market area. The expansion of operations onto the F-80 property will provide another 772,000 cubic yards of commercial quality material

above the quarry floor, plus an additional 762,000 cubic yards below the quarry floor. This material is needed to serve identified demand over the planning period, which is 161,000 to 250,000 cubic yards annually.

Further, use of this site for aggregate extraction will ensure adequate competition in the marketplace and prevent any single operator from obtaining a monopoly. The county roadmaster is on record favoring increased competition, and the county shares that opinion and finds increased competition to be in the best interest of the county and its residents.

(d) Energy Consequences.

The Johnson property is only a short distance from the Cannon Beach junction and is close to the market area. Its location near Highway 101 should reduce transportation and energy costs over sites located further from the highway.

2. Comparison with Other Sites That Require an Exception.

The standard in OAR 660-04-020(2)(c) requires a comparison of environmental, social, economic and energy consequences resulting from the use at the proposed site with those that would typically result if the use were located at other sites that would require an exception. The standard requires not that the county find that there will not be consequences, but that such consequences as do result "are not

significantly more adverse" than they would be at any other location.

In comparing consequences for the Johnson site with consequences at other sites, the county first notes that the standard applies only to sites which would require an exception. Because sites already zoned QM do not require an exception, there is no obligation to consider the Seaside Reservoir site or the Bayview site. Moreover, as the county did in its Bayview findings, the county will not engage in this exercise with respect to Cavenham Highway 101, the Halvorson Clay Borrow Pit, Cavenham Pit Run, McEwen Clay Borrow Pit, or the Stevens River Borrow Pit because these sites lack sufficient aggregate resources to meet the demonstrated need. See Bayview Findings, p. 16-17. To engage in such an analysis for these sites would be an empty gesture. Also, the Darling and Ordway quarries lack large quantities of rock, and the rock located at those sites is of marginal quality. Accordingly, the county declines to analyze the potential expansion of these sites in terms of typical impacts since they cannot reasonably be considered to meet the demonstrated need.

In its Bayview findings, the county noted that the Forked Horn Quarry is located on approximately four acres in an F-80 zone and that it contains a limited amount of rock (approximately 100,000 cubic yards). Findings, pp. 39-40. It is likely that this site could not accommodate the use in any event. The Bear Cat and Silver Point quarries each are

approximately one acre in size , with limited quantities of rock. Findings, 40, 43. It is likely these sites cannot accommodate the use. Notwithstanding that fact, the county will analyze the consequences for these sites as well as the Rippet site, which is approximately five acres in size, consistent with its analysis of such sites in the Bayview exception.

(a) Environmental Consequences.

With respect to environmental concerns, both the Rippet site and the Johnson site have room for sediment ponds, are located in elk habitat, and have a stream nearby or on the premises. The Rippet site contains some larger trees. Also, a 1984 aerial photo shows a large landslide at the Rippet site. In contrast, the geology at the Johnson site is stable, as the county recognized in its Bayview findings (p. 20-21). Both sites are visible from Highway 101, but Rippet also is visible from Highway 26. No wetland areas have been identified at either site. In the Bayview findings the county found that the Rippet site presented potential environmental problems in terms of overburden, high-face reclamation, landslides and proximity of adjacent residences that could present operational difficulties (p. 20, 39).

The Forked Horn and Silver Point quarries have no streams or water bodies nearby, so water quality and potential impacts on fish are not a potential problem. Sediment ponds also are not a consideration at Bear Cat because

the Necanicum River (a class I stream) lies across Highway 26 from the site. As noted above, the sediment ponds at the Johnson site are adequate to protect the water resource at that location. Silver Point does present a significant landslide danger to U.S. Highway 101 and to nearby residences, as it has extremely unstable geology. This renders highly questionable its ability to satisfy the county's need for additional aggregate materials. All three of these sites are within elk habitat areas, like the Johnson and Rippet sites. There are no clear advantages or disadvantages in this regard. The Silver Point site would require removal of trees approaching market size, while Forked Horn and Bear Cat are not heavily timbered. As noted above, only a small portion of the merchantable timber on the Johnson site still remains. In terms of aesthetics, all sites can be seen from the highways. The Bear Cat site is within 200 feet of a residence, and the Silver Point quarry can be seen from resort motels. The Forked Horn quarry is not visible from nearby residences but is visible from the road. Based on these findings, the county concludes that the long term environmental consequences of locating the proposed use at the Johnson site are not significantly more adverse than would typically result from located the use at any of these other sites. In reaching this conclusion the county relies on and incorporates by reference the Bayview findings at pages 39, 40, 43, and 49-57, as they relate to these sites.

(b) Social Consequences.

With respect to social impacts, the Rippet site

has two homes within 300 feet, while the Johnson site has seven homes within 1000 feet. The Forked Horn site is not visible from nearby residences, but the Silver point site can be seen from resort motels and the Bear Cat site is within 200 feet of a residence. Because of its proximity to and orientation toward nearby residences, Bear Cat will not likely meet DEQ noise standards. Expansion of the Johnson operation onto the F-80 property will put the use at least 500 feet away from the closest residence. A report by Duble & Associates, attached to Johnson's conditional use request, states, and the county finds, that with proper mitigation measures the Johnson operation will not violate DEQ standards. Information on this topic for the Rippet, Forked Horn and Silver Point sites is not available. All sites are visible from state highways. The Johnson site is visible from Highway 101; Rippet is visible from both Highway 101 and Highway 26; Bear Cat is visible from Highway 26; Forked Horn is visible from Highway 26; and Silver Point can be seen from Highway 101. Based on these findings, the county finds and concludes that the proposed use at the Johnson site would not have social impacts significantly more adverse than at the other sites, particularly because it can meet DEQ noise standards.

(c) Economic Consequences.

With respect to economics, Rippet contains approximately 250,000 cubic yards of available material -- about a 12 to 16 month supply. The site has a possible over-

burden problem and a possible high face reclamation problem not faced by the Johnson site. Additional reserves at Rippet have not been quantified. The Forked Horn Quarry contains only about 100,000 cubic yards of material. This is significantly less than the amount needed to support the proposed use. Moreover, this quarry is located about 13 miles from the Cannon Beach junction (junction of Highways 26 and 101), and that distance to market adds a significant amount to the cost of the aggregate to be produced at that location. In contrast, the Johnson site and Rippet Site are located only a short distance from the Cannon Beach junction and the market area. The Bear Cat Quarry is located six miles from the Cannon Beach junction, off of Highway 26, and contains only a limited amount of rock (approximately 148,000 cubic yards). This limited rock supply is significantly less than is needed to meet the demonstrated need for rock in the county, and the distance from the site to the market area will mean higher costs. The Silver Point Quarry also has limited supply (approximately 100,000 cubic yards) available for extraction and is located approximately six miles from the Cannon Beach junction, thus increasing transportation costs.

Based on these findings, the county concludes that locating the use on the proposed site would not have economic impacts significantly more adverse than would typically result if the use were located on one of the other sites.

(d) Energy Consequences.

With respect to energy consequences, the Johnson and Rippet sites are close to the market area, while the Silver Point and Bear Cat quarries are about six miles distant from the market area and the Forked Horn Quarry is 13 miles distant. We find that the sites closer to the market area, i.e., Johnson and Rippet, enjoy an energy benefit in that additional fuel need not be spent to transport aggregate material. All sites would require mechanical extraction using similar equipment. The Rippet site has a potential disadvantage due to overburden problems on site which may require additional energy during the handling of material. From this we conclude that location of the proposed use at the Johnson site would not result in energy consequences that are significantly more adverse than would typically result from the proposal being located at any other of these sites.

In summary, after weighing the environmental, social, economic and energy consequences of these alternative sites, the county concludes that the long term effects resulting from using the Johnson site are not significantly more adverse than would typically result from the same proposal at the Rippet, Forked Horn, Bear Cat or Silver Point sites.

G. The Proposed Use is Compatible with Other Adjacent Uses Or Will Be so Rendered Through Measures Designed to Reduce Adverse Impacts.

OAR 660-04-020(2)(d) requires a determination that the

proposed use is or will be made compatible with other adjacent uses. "Compatible", as used in the rule, is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses.

The proposed use is an expansion of an existing quarry that has been in use for over 20 years. Adjacent uses include forest land and residential uses. Impacts on residential uses include noise, visibility, safety and traffic. There are seven residences within 1000 feet of the property. We find that as the operation moves onto the F-80 property, the four nearest dwellings will be between 560 and 720 feet away. As the operation moves eastward, that distance will increase.

Regarding noise, the report by Duble & Associates concludes that, with employment of proper mitigation measures, the operation will not violate DEQ noise standards. We accept that expert opinion and find that noise standards will be met. We note that the operation would be expanding in an easterly direction, away from existing residences, thereby reducing whatever noise impact there will be with the passage of time. We find that no new equipment or operational changes will be required to allow the use to expand onto the F-80 property. We also find that no additional truck traffic should result from the continuation of this project onto the F-80 site. Hence, there will be no increase in noise levels over their current state. We also find that most noise complaints in the immediate area relate to traffic on Highway 101 rather than

operations at the Johnson quarry.

We find that in the operation of the mine, all equipment will be maintained to insure its proper functioning and that specific attention will be paid to insuring that bulldozers, trucks and other moving equipment have properly installed and functioning mufflers. We also find that the operators will increase the height of the present stockpile of overburden on the RA-5 property to add to its effectiveness as a noise barrier to active mining operations in the F-80 area. We also find that temporary noise barriers, such as hay bales, will be used whenever other noise mitigation measures and barriers are not adequate to maintain required state noise levels for particular operations. We also find that blasting activities will move farther and farther from residences as the operation moves eastward and that blasting noise control measures already being practiced by Johnson will minimize noise impacts. We conclude that these measures are adequate to render the proposed use compatible with adjacent uses.

The proposed use will be visible from Highway 101. We find, however, that steps taken to reduce the visual impact will be adequate to render the use compatible with adjacent uses. Expansion of the use will be in an easterly direction, moving away from residences and the highway, into an area that is more visually screened from the highway than present operations. When the mining operation is fully onto the F-80 site, the active face of the mine will be approximately 1500

feet from Highway 101. The existing riparian screen of vegetation along the Necanicum River will be retained throughout the life of the aggregate mine and will serve as a visual screen to the crushing operation and the maintenance activities. We conclude that these steps will render the use compatible with adjacent uses.

The proposed use will not involve a change in the method of sedimentation ponding and discharge from the property. Hence, we find that water quality levels will continue to meet or exceed state standards.

We also find that the proposed operations plan insures that the active mining operation and the ultimate reclamation of the property will maintain maximum compatibility with forest uses that abut the property on the east, the residential-agriculture lands that border the property to the west, the existing quarry adjacent to the remainder of the property. We conclude that the compatibility standard is satisfied by this proposal.

H. Compliance with other LCDC Goals.

The county finds that only LCDC Goals 1, 2, 4, 5, 6, 7, 9, 11 and 12 are applicable to this proceeding. Because an argument might be made that Goal 13 applies, we find that our findings addressing energy consequences below, under Goal 5, and elsewhere in this exception statement, are sufficient to satisfy that goal.

1. Goal 1.

Notification of the proposed action was mailed in a

timely manner to LCDC. Notice also was provided in accordance with LCDC-acknowledged county notice standards for legislative actions. A public hearing was held before the Planning Commission on January 19, 1988, and before the Board of Commissioners on February 24, 1988, at which time public opinion and testimony was accepted. We find that Goal 1 has been satisfied.

2. Goal 2.

The decision approving this exception is consistent with the county's comprehensive plan. Applicable plan policies are identified in the application for a proposed conditional use permit which is part of the record of this proceeding. The county agrees with the determination as to which policies apply and agrees, accepts, and adopts as its own findings, reasons and conclusions the assertions and determinations of compliance with such policies included therein. The county incorporates those findings by reference as if fully set forth herein.

The county further finds that the record contains an adequate factual base to support this exception, plan amendment and zone change, and the exception is expressly made a part of the comprehensive plan. The county also finds that Goal 2, Part II is met for the reasons set forth above in the exception to Goal 4.

3. Goal 4.

Because the land involved is forest land, this goal

applies. The goal requires that forest land be preserved for forest uses. LCDC's exception rule, OAR 660-04-010(1)(b), as amended in 1987, provides that an exception is not required for

> "the exploration, mining and primary processing of * * * aggregate and other mineral resources provided these uses will not substantially interfere with the conservation of forest uses."

We find that this rule renders the use consistent with Goal 4 even in the absence of an exception. We find that the exception provides support for the decision in the event this rule should ever be deemed invalid. We also find that the F-80 parcel in question has little merchantable timber remaining, that the use of the site for aggregate extraction and primary processing will not substantially interfere with the conservation of forest uses (for the reasons set forth in the exception), that the land ultimately will be reclaimed to allow forest uses, and that Goal 4 is therefore met.

4. Goal 5.

Goal 5 requires that natural resources be inventoried, that where conflicting uses are identified, and that where such have been identified, the economic, social, environmental and energy consequences of the conflicting uses be determined and programs developed to achieve the goal.

Mineral and aggregate resources are an identified Goal 5 resource. Likewise, fish and wildlife habitat is such a resource. Although timber values are addressed in Goal 4, they also must be considered as a conflicting resource use under

Goal 5. Each of these resources is found at the proposed site.

We find that the proposal involves three parcels, a 2.1 acre site zoned RA-5, a 12.44 acre site zoned RA-5, and a 10.4 acre site zoned F-80. The Necanicum River, a Class I stream, abuts the RA-5 sites and flows across the F-80 site. The RA-5 and F-80 sites are in common ownership with a QM-zoned site which has been utilized for aggregate mining for over 20 years. Expansion of that use would go onto the F-80 site, with the RA-5 sites used primarily for maintenance and support facilities and the stockpiling of overburden material. Only about 4.1 acres of the F-80 property is expected to actually be used for the active mine area. The active quarry pit is not expected to get any closer than 150 feet to the bank of the Necanicum River. Approximately 772,000 cubic yards of material has been identified in the F-80 area above the quarry floor, with an additional 762,000 cubic yards below the quarry floor, which is presently at about 45 feet mean sea level. Existing stockpiling presently is located within lands already zoned QM. Sediment ponds are found in the RA-5 property. In our Bayview findings (p. 20) we found that the site contains adequate room for sediment ponds, and we continue to abide by that finding. There is some timber left on the F-80 property, but most of the timber has been stripped and no longer exists. No wetlands have been identified on the property; the area is not identified as being desirable for open space, energy, scenic views; the area is not classified as an ecologically or

scientifically significant natural area, or a wilderness area, historic area, cultural area, potential or approved recreation trail, or potential or approved wild and scenic waterway.

(a) Economic Factors.

The stripping of timber in past years means that the site does not currently contain a significant or valuable forest resource. The ability of this site to support timber use or other forest uses is severely limited by its lack of trees. Only the riparian fringe vegetation along the Necanicum River and a scattering of other miscellaneous noncommercial species remains on the property. Hence, the property lacks sufficient productive capacity to be used as commercial forest land. However, the presence of a basalt formation on the property clearly demonstrates its capacity for productive use as an aggregate mine. Under these circumstances, and in light of the limited aggregate resource within this market area of the county, resource use for aggregate rather than timber on the limited number of acres involved is the more rational choice. Upon completion of aggregate extraction on the F-80 property, the site will be reclaimed to allow future forest uses. Hence, the loss of the site for forest uses is short term.

Hunting for elk and the provision of meat for households produces some economic benefit to the area. The RA-5 and F-80 sites are within the Peripheral Big Game Range classification of the county's Comprehensive Plan. According

to ODFW personnel, the number of elk located within a four square mile area surrounding the Johnson site is estimated in the order of a couple of hundred. We accept this figure. We also note and find that ODFW does not consider this site to be important big game habitat. If the proposal causes any loss of habitat, it should be small. Riparian vegetation along the Necanicum River will be preserved. We also find that habitat loss will be temporary, as the land ultimately will be reclaimed. Elk can migrate and take advantage of surrounding forest lands. Moreover, the large capacity of this quarry may limit the need for other smaller pits on forest land. The Necanicum River is a class I stream. To protect its values for fish resources, the riparian fringe vegetation will be protected and left undisturbed. No mining operations or stockpiling or other activities will occur within these areas. Drainage flows from the quarry will continue to be channeled into the present system of siltation ponds to protect water quality and fish habitat, thereby protecting fish for their economic value. Regular consultation between the Johnsons and field officials will insure that the water quality of drainage and runoff discharges from the mine remains at or exceeds present levels. The county also will rely on enforcement of the Forest Practices Act to protect riparian vegetation and water quality from potential negative impacts of any forest management that may occur.

As noted earlier, aggregate is a necessary and

important commodity for the economy of Clatsop County. This particular site has enormous rock potential and is demonstrated to be needed to meet the county's demand over the planning period and to ensure adequate competition in the marketplace. Expansion of the Johnson quarry will reduce the need to import rock into the county, provide commercial quality rock, and continue to provide jobs for persons currently working at the existing quarry, which has less than a one year supply of rock above the quarry floor. To not use this site would have a significant negative economic impact, including higher aggregate prices in the absence of competition and uncertain future supplies.

(b) Social Factors.

An adequate timber base is important to preserve county jobs and to provide areas for recreation. Because the Johnson site has been stripped of most of its trees, and because the area supports an existing aggregate pit, this area is not an ideal choice for timber production or forest recreation. Loss of 10.4 acres will reduce the county's timber base in the short term (although only about 4.1 of those acres are expected to be actively mined). Clatsop County has approximately 474,000 acres of timberland. The reduction in the timber base is thus minuscule, and the use of this site for quarry operations, without the need for new roads, may actually preserve more timber land than if new sites were needed. In addition, nearly all the alternative sites would entail loss of productive forest lands. Potential job losses from timber use

of this land are compensated by jobs for aggregate extraction.

Expansion of the aggregate operation may have a short term impact on elk in the area, which could affect elk hunting somewhat. However, this does not necessarily cause a decrease in elk in the area, and thus should not have a significant, if any, social impact. Protection of fringe vegetation along the Necanicum River will be supportive of elk and other wildlife habitat and protect water quality for fish. The sediment ponds are sufficient to protect water quality and therefore there should be no noticeable social impact regarding fish.

The aggregate proposal will ensure competition in the marketplace and avoid the great bulk of the resource being in the hands of a single operator. This competition serves the public's interest from a social standpoint. The site would be visible from the highway, and it will create some noise, although mitigation measures will keep noise within DEQ limits. As the operation moves eastwardly, noise and visibility impacts will decrease. A social benefit will be the continuation of jobs at the site and the support those jobs provide to the general well being of Clatsop County.

(c) Environmental Consequences.

Trees provide potential habitat for elk on the site. As indicated above, the site already has been stripped of most of its trees, although riparian vegetation exists along the Necanicum River. The proposal will not have a significant

environmental impact on forest resources because of prior action removing trees from the site. Moreover, what impact there will be is temporary, in that the site ultimately will be reclaimed, thereby allowing its future use as forest land. Forest resources along the Necanicum River will be protected for their watershed and wildlife values.

As noted above, expansion of the quarry onto the F-80 site and the use of the RA-5 sites in conjunction therewith may have the effect of displacing some elk in the area. However, retention of a buffer area along the Necanicum River will provide habitat for wildlife, and there is no indication that the proposed mine expansion, onto an anticipated 4.1 acres in the F-80 zone, will cause any loss in elk population. Upon reclamation the site will again become available as elk habitat. The sediment ponds have been shown to be adequate to protect fish habitat and water quality in the Necanicum River. The buffer of vegetative fringe between the river and the active mining area will not get any closer than 150 feet from the bank, thereby adding further protection for water quality. The site is at least 1.5 miles away from any bald eagle nest, so there should be no impacts on sensitive bird nests.

The majority of the proposed F-80 site is a solid basalt rock formation. The proposed mining operation will create a vertical cut slope at the final face of the aggregate mine which will then be reclaimed with overburden material to an appropriate slope surface. The presence of

solid basalt presents no hazard to the stability of adjacent lands. Landslides are not a problem at this site. Mining activity will remove aggregate from the site, changing the appearance of the site, but the site will be reclaimed pursuant to a reclamation plan upon completion of mining activities. The site is one of the few sites of high quality and quantity of rock in the market area, and it has already been disturbed and in use for quite a few years. Sedimentation ponds will protect water resources from adverse impacts caused by mining operations.

(d) Energy Consequences.

Little energy use accompanies the growing of trees, with the exception of occasional spraying, pruning and harvesting activities. Rock extraction and processing would require more energy consumption.

Elk and fish resources entail no energy use. Extraction and processing of rock material requires more energy than these uses.

Energy expenditure necessarily accompanies aggregate extraction, as machinery is required in the extraction of materials, blasting is required, the rock must be processed, and there are transportation costs. At the same time, aggregate provides a correspondingly higher economic return. The proposed site is ideally located close to Highway 101 between Cannon Beach and Seaside, thereby reducing fuel consumption and providing a superior choice with respect to

energy consumption to other sites farther away.

(e) Program to Achieve the Goal.

Considering the economic, social, environmental and energy consequences of locating the proposed use at the Johnson site, the county finds as follows. Aggregate is a scarce resource within the county and within this market area of the county. Often the quality of aggregate is below that acceptable to the Oregon Department of Transportation. A site where there is high quality rock that meets ODOT specifications is a valuable resource. The Johnson site is such a site, enhanced by the fact that extraction and processing at this site will have a minimal effect on forest uses (since most of the merchantable timber has been stripped from the land), that such use will not have adverse impacts on water quality or fish, that displacement of elk, if at all, will be minimal, and in that the use should not have significant social impacts, especially since the use will be moving away from existing residences and the highway. We find that need exists for a site containing significant quantities of commercial quality rock, and that the Johnson site is such a site. We find that the use will not be new to the area, but is an expansion of an existing use which will not require new roads and which will have minimum additional impacts. We find that elk may be affected in small numbers, and that impacts from mining could adversely affect fish, but that this is highly unlikely to happen with the system of sediment ponds installed and the

retention of 150 feet of buffer in the F-80 area between the mining operations and the river. Any negative impacts on wildlife and on timber will be temporary, as the site ultimately will be reclaimed. We determine, on balance, and giving consideration to the mitigation steps proposed by Johnson, that the economic, social, environmental and energy consequences mitigate in favor of allowing the use at this site, with conditions as set forth in the conditional use application, incorporated herein by this reference. We find that this program will achieve Goal 5.

5. Goal 6.

The proposed use involves the expansion of an existing use rather than the establishment of a new use. The present aggregate mining operation meets applicable air, water and land resource quality standards. No change in operations will occur as a result of the proposed continued mining operation. Continuation of the operation will not involve increases in truck traffic, and steps will be taken to minimize noise, which levels will fall within DEQ standards. Water quality will be protected by sedimentation ponding and by retention of a large buffer area between the active mining area and the Necanicum River. We find that Goal 6 is satisfied.

6. Goal 7.

Goal 7 prohibits the planning or location of developments in known areas of natural hazards without appropriate safeguards. We find that the Johnson site is not prone to

landslides or natural hazards. The entire proposed active mining area is a solid basalt rock formation presenting no hazard to the stability of adjacent lands. We note that no new crossings of the Necanicum River are required to support the continuation of aggregate mining into the RA-5 and F-80 areas. We note that the aggregate operation will not occur within a designated floodway. We find that Goal 7 is met by this proposal.

7. Goal 9.

Goal 9 is to improve and diversify the economy of the state. The economic benefits of this proposal have been repeated throughout this exception document, particularly in analyzing the economic consequences for purposes of Goal 2, Part II and Goal 5. We incorporate those portions of this document herein by this reference. We reiterate that this would be a continuation of an existing use, that the demand for a high quality aggregate site in this area is clear, that existing supply is far below the identified need, that this site better meets the need than any other identified site, and that this proposal provides needed competition in the market area. We conclude that Goal 9 is met by this proposal.

8. Goal 11.

Goal 11 requires a timely, orderly and efficient arrangement of public facilities and services. The services at this location would be those necessary to meet the rural use involved. We find that existing water systems and fire protec-

tion systems serving the existing quarry are adequate to serve the continuation of the quarry onto the F-80 and RA-5 properties. We find that no new sources of water nor changes in the level of public facilities and services will be needed to support continued operation of this enterprise. We find that present systems of water, sewer, storm drainage, electrical service and fire protection serving the site will be used, with no increase in service required. We find that no new roads will be required. We conclude that the use meets Goal 11.

9. Goal 12.

Goal 12, Transportation, requires the county to provide a safe and convenient transportation system. We find that the proposal will have no greater impact on the transportation system than it has currently, and that Goal 11 is satisfied by this proposal. We find that the use will not require any new access points to Highway 101 and that an increase in traffic from the proposed use will not occur. We find that the present road serving the site will be maintained at or above its current level of maintenance.

I. Compliance with Applicable Plan Policies.

We find that the comprehensive plan policies applicable to this exception, plan amendment and zone change are those identified in Johnson's application for a conditional use permit, which application is expressly made a part of the record herein. We also find that the policies identified

therein are satisfied for the reasons expressed therein, we adopt the findings and reasons stated therein as our own, and we incorporate by reference those findings and reasons, and the listing of applicable standards, as if fully set forth herein.

J. Conclusion.

We conclude that the redesignation and rezoning of the Johnson F-80 and RA-5 properties to Conservation Other Uses and QM, respectively, is consistent with and satisfies all applicable statewide goal requirements, including the requirements of Goal 2, Part II (Exceptions) and OAR 660-04-000 et seq., and satisfies all applicable comprehensive plan provisions in the Clatsop County Comprehensive plan. We find that we have addressed all appropriate criteria and conclude that the exception, redesignation and rezoning is justified.

EXHIBIT "A"

Part 2. Conditions of Approval

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BOARD OF COMMISSIONERS

CONDITIONS OF APPROVAL

Howard E. Johnson & Sons

1. Preventative measures shall be taken to assure that excessive noise, dust, vibrations, and other nuisances associated with mining activities are avoided. The applicant shall follow the recommendations of its noise consultant in his noise study (attached to the application) and coordinate with the noise pollution control section of the Department of Environmental Quality to mitigate possible excessive emissions from rock extraction and sorting operations.

2. The proposed use will continue to use existing settlement ponds and drainage outfalls into the Necanicum River. The applicant shall coordinate with the Department of Fish and Wildlife for to ensure that the existing drainage system remains adequate and that water quality levels in the river are maintained.

3. The applicant shall obtain a valid permit from the Oregon Department of Geology and Mineral Industries for the rock quarry operations.

4. Rock crushing operations shall comply with a Air Contaminate Discharge Permit issued by the Department of Environmental Quality and with the provisions of Section 3.470 of Clatsop County Ordinance 80-14.

5. The applicant shall supply copies of applications and supporting materials for any actions which require state or federal permits.

6. All private access and service roads shall be maintained in a dust-free conditions during intensive operations.

7. Prior to operations which will result in open excavation with a depth of ten feet or more and a slope steeper than one vertical foot to two horizontal feet and which is located within 100 feet of a residential structure, a fence at least four feet high shall be constructed at least 10 feet outside the area of excavation.

8. No mining or structural improvements (except drainage outfalls and access roads) shall occur within the riparian setbacks as specified in Section 4.502. In no case, however, shall the minimum setback from a waterway be less than 25 feet.

9. Clatsop County Department of Planning and Development shall be notified in advance by either the applicant, a lessee or purchaser or rock material which will be used for fill or riprap in areas identified in the Clatsop County Comprehensive Plan as an Estuarine Resource Coastal Shorelands, Beach and Dune area or significant wetland area. All permits required by local, state and federal agencies for fill or riprap must be approved prior to placement of materials in any of the identified areas.

10. Reclamation plans for surface mining operations must show that they are consistent with the Comprehensive Plan.

11. All mining, stockpiling, construction of buildings and accessory structures and signs, and placement of concrete, ready-mix or asphalt batch plants shall obtain a Clatsop County Land and Water Development and Use Permit.

12. No barriers will be constructed to prevent wildlife migration unless required by adjacent residential uses.

13. Extraction operations on the site will be limited to the hours of 7:00am through 10:00pm.

14. Any development, including stockpiling of rock or overburden materials will stay clear of wetlands or will first obtain required state and federal permits.

15. Rock drilling equipment will not exceed 90 dBA [L (50)].

16. Extraction shall be in accordance with the Operation Plan as submitted by the applicant as Exhibit 3 (Wilsey & Ham) except as modified by Conditions 17 and 18 below.

17. Filling is permitted on the 2.1 acre parcel (TL 101). In addition, filling is permitted in the northeast corner of the 12.4 acre parcel (TL 100), northeasterly of a line that begins in the southwest corner of TL 101 and runs southeasterly to a point 150 feet north of the riverbank of the Necanicum River along the property line between TL 100 and TL 301.

18. As filling occurs in the designated portion of TL 100, excavation to a depth of at least 3 feet will be done on the remainder of TL 100 between the designated fill area and a line 100 feet from the riverbank of the Necanicum River. No excavation or any other work will be done in the 100 foot riparian zone along the riverbank.

(d) Energy Consequences.

With respect to energy consequences, the Johnson and Rippet sites are close to the market area, while the Silver Point and Bear Cat quarries are about six miles distant from the market area and the Forked Horn Quarry is 13 miles distant. We find that the sites closer to the market area, i.e., Johnson and Rippet, enjoy an energy benefit in that additional fuel need not be spent to transport aggregate material. All sites would require mechanical extraction using similar equipment. The Rippet site has a potential disadvantage due to overburden problems on site which may require additional energy during the handling of material. From this we conclude that location of the proposed use at the Johnson site would not result in energy consequences that are significantly more adverse than would typically result from the proposal being located at any other of these sites.

In summary, after weighing the environmental, social, economic and energy consequences of these alternative sites, the county concludes that the long term effects resulting from using the Johnson site are not significantly more adverse than would typically result from the same proposal at the Rippet, Forked Horn, Bear Cat or Silver Point sites.

G. The Proposed Use is Compatible with Other Adjacent Uses Or Will Be so Rendered Through Measures Designed to Reduce Adverse Impacts.

OAR 660-04-020(2)(d) requires a determination that the

proposed use is or will be made compatible with other adjacent uses. "Compatible", as used in the rule, is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses.

The proposed use is an expansion of an existing quarry that has been in use for over 20 years. Adjacent uses include forest land and residential uses. Impacts on residential uses include noise, visibility, safety and traffic. There are seven residences within 1000 feet of the property. We find that as the operation moves onto the F-80 property, the four nearest dwellings will be between 560 and 720 feet away. As the operation moves eastward, that distance will increase.

Regarding noise, the report by Duble & Associates concludes that, with employment of proper mitigation measures, the operation will not violate DEQ noise standards. We accept that expert opinion and find that noise standards will be met. We note that the operation would be expanding in an easterly direction, away from existing residences, thereby reducing whatever noise impact there will be with the passage of time. We find that no new equipment or operational changes will be required to allow the use to expand onto the F-80 property. We also find that no additional truck traffic should result from the continuation of this project onto the F-80 site. Hence, there will be no increase in noise levels over their current state. We also find that most noise complaints in the immediate area relate to traffic on Highway 101 rather than

operations at the Johnson quarry.

We find that in the operation of the mine, all equipment will be maintained to insure its proper functioning and that specific attention will be paid to insuring that bulldozers, trucks and other moving equipment have properly installed and functioning mufflers. We also find that the operators will increase the height of the present stockpile of overburden on the RA-5 property to add to its effectiveness as a noise barrier to active mining operations in the F-80 area. We also find that temporary noise barriers, such as hay bales, will be used whenever other noise mitigation measures and barriers are not adequate to maintain required state noise levels for particular operations. We also find that blasting activities will move farther and farther from residences as the operation moves eastward and that blasting noise control measures already being practiced by Johnson will minimize noise impacts. We conclude that these measures are adequate to render the proposed use compatible with adjacent uses.

The proposed use will be visible from Highway 101. We find, however, that steps taken to reduce the visual impact will be adequate to render the use compatible with adjacent uses. Expansion of the use will be in an easterly direction, moving away from residences and the highway, into an area that is more visually screened from the highway than present operations. When the mining operation is fully onto the F-80 site, the active face of the mine will be approximately 1500

feet from Highway 101. The existing riparian screen of vegetation along the Necanicum River will be retained throughout the life of the aggregate mine and will serve as a visual screen to the crushing operation and the maintenance activities. We conclude that these steps will render the use compatible with adjacent uses.

The proposed use will not involve a change in the method of sedimentation ponding and discharge from the property. Hence, we find that water quality levels will continue to meet or exceed state standards.

We also find that the proposed operations plan insures that the active mining operation and the ultimate reclamation of the property will maintain maximum compatibility with forest uses that abut the property on the east, the residential-agriculture lands that border the property to the west, the existing quarry adjacent to the remainder of the property. We conclude that the compatibility standard is satisfied by this proposal.

H. Compliance with other LCDC Goals.

The county finds that only LCDC Goals 1, 2, 4, 5, 6, 7, 9, 11 and 12 are applicable to this proceeding. Because an argument might be made that Goal 13 applies, we find that our findings addressing energy consequences below, under Goal 5, and elsewhere in this exception statement, are sufficient to satisfy that goal.

1. Goal 1.

Notification of the proposed action was mailed in a

timely manner to LCDC. Notice also was provided in accordance with LCDC-acknowledged county notice standards for legislative actions. A public hearing was held before the Planning Commission on January 19, 1988, and before the Board of Commissioners on February 24, 1988, at which time public opinion and testimony was accepted. We find that Goal 1 has been satisfied.

2. Goal 2.

The decision approving this exception is consistent with the county's comprehensive plan. Applicable plan policies are identified in the application for a proposed conditional use permit which is part of the record of this proceeding. The county agrees with the determination as to which policies apply and agrees, accepts, and adopts as its own findings, reasons and conclusions the assertions and determinations of compliance with such policies included therein. The county incorporates those findings by reference as if fully set forth herein.

The county further finds that the record contains an adequate factual base to support this exception, plan amendment and zone change, and the exception is expressly made a part of the comprehensive plan. The county also finds that Goal 2, Part II is met for the reasons set forth above in the exception to Goal 4.

3. Goal 4.

Because the land involved is forest land, this goal

applies. The goal requires that forest land be preserved for forest uses. LCDC's exception rule, OAR 660-04-010(1)(b), as amended in 1987, provides that an exception is not required for

> "the exploration, mining and primary processing of * * * aggregate and other mineral resources provided these uses will not substantially interfere with the conservation of forest uses."

We find that this rule renders the use consistent with Goal 4 even in the absence of an exception. We find that the exception provides support for the decision in the event this rule should ever be deemed invalid. We also find that the F-80 parcel in question has little merchantable timber remaining, that the use of the site for aggregate extraction and primary processing will not substantially interfere with the conservation of forest uses (for the reasons set forth in the exception), that the land ultimately will be reclaimed to allow forest uses, and that Goal 4 is therefore met.

4. Goal 5.

Goal 5 requires that natural resources be inventoried, that where conflicting uses are identified, and that where such have been identified, the economic, social, environmental and energy consequences of the conflicting uses be determined and programs developed to achieve the goal.

Mineral and aggregate resources are an identified Goal 5 resource. Likewise, fish and wildlife habitat is such a resource. Although timber values are addressed in Goal 4, they also must be considered as a conflicting resource use under

Goal 5. Each of these resources is found at the proposed site.

We find that the proposal involves three parcels, a 2.1 acre site zoned RA-5, a 12.44 acre site zoned RA-5, and a 10.4 acre site zoned F-80. The Necanicum River, a Class I stream, abuts the RA-5 sites and flows across the F-80 site. The RA-5 and F-80 sites are in common ownership with a QM-zoned site which has been utilized for aggregate mining for over 20 years. Expansion of that use would go onto the F-80 site, with the RA-5 sites used primarily for maintenance and support facilities and the stockpiling of overburden material. Only about 4.1 acres of the F-80 property is expected to actually be used for the active mine area. The active quarry pit is not expected to get any closer than 150 feet to the bank of the Necanicum River. Approximately 772,000 cubic yards of material has been identified in the F-80 area above the quarry floor, with an additional 762,000 cubic yards below the quarry floor, which is presently at about 45 feet mean sea level. Existing stockpiling presently is located within lands already zoned QM. Sediment ponds are found in the RA-5 property. In our Bayview findings (p. 20) we found that the site contains adequate room for sediment ponds, and we continue to abide by that finding. There is some timber left on the F-80 property, but most of the timber has been stripped and no longer exists. No wetlands have been identified on the property; the area is not identified as being desirable for open space, energy, scenic views; the area is not classified as an ecologically or

scientifically significant natural area, or a wilderness area, historic area, cultural area, potential or approved recreation trail, or potential or approved wild and scenic waterway.

(a) Economic Factors.

The stripping of timber in past years means that the site does not currently contain a significant or valuable forest resource. The ability of this site to support timber use or other forest uses is severely limited by its lack of trees. Only the riparian fringe vegetation along the Necanicum River and a scattering of other miscellaneous noncommercial species remains on the property. Hence, the property lacks sufficient productive capacity to be used as commercial forest land. However, the presence of a basalt formation on the property clearly demonstrates its capacity for productive use as an aggregate mine. Under these circumstances, and in light of the limited aggregate resource within this market area of the county, resource use for aggregate rather than timber on the limited number of acres involved is the more rational choice. Upon completion of aggregate extraction on the F-80 property, the site will be reclaimed to allow future forest uses. Hence, the loss of the site for forest uses is short term.

Hunting for elk and the provision of meat for households produces some economic benefit to the area. The RA-5 and F-80 sites are within the Peripheral Big Game Range classification of the county's Comprehensive Plan. According

to ODFW personnel, the number of elk located within a four square mile area surrounding the Johnson site is estimated in the order of a couple of hundred. We accept this figure. We also note and find that ODFW does not consider this site to be important big game habitat. If the proposal causes any loss of habitat, it should be small. Riparian vegetation along the Necanicum River will be preserved. We also find that habitat loss will be temporary, as the land ultimately will be reclaimed. Elk can migrate and take advantage of surrounding forest lands. Moreover, the large capacity of this quarry may limit the need for other smaller pits on forest land. The Necanicum River is a class I stream. To protect its values for fish resources, the riparian fringe vegetation will be protected and left undisturbed. No mining operations or stockpiling or other activities will occur within these areas. Drainage flows from the quarry will continue to be channeled into the present system of siltation ponds to protect water quality and fish habitat, thereby protecting fish for their economic value. Regular consultation between the Johnsons and field officials will insure that the water quality of drainage and runoff discharges from the mine remains at or exceeds present levels. The county also will rely on enforcement of the Forest Practices Act to protect riparian vegetation and water quality from potential negative impacts of any forest management that may occur.

As noted earlier, aggregate is a necessary and

important commodity for the economy of Clatsop County. This particular site has enormous rock potential and is demonstrated to be needed to meet the county's demand over the planning period and to ensure adequate competition in the marketplace. Expansion of the Johnson quarry will reduce the need to import rock into the county, provide commercial quality rock, and continue to provide jobs for persons currently working at the existing quarry, which has less than a one year supply of rock above the quarry floor. To not use this site would have a significant negative economic impact, including higher aggregate prices in the absence of competition and uncertain future supplies.

(b) Social Factors.

An adequate timber base is important to preserve county jobs and to provide areas for recreation. Because the Johnson site has been stripped of most of its trees, and because the area supports an existing aggregate pit, this area is not an ideal choice for timber production or forest recreation. Loss of 10.4 acres will reduce the county's timber base in the short term (although only about 4.1 of those acres are expected to be actively mined). Clatsop County has approximately 474,000 acres of timberland. The reduction in the timber base is thus minuscule, and the use of this site for quarry operations, without the need for new roads, may actually preserve more timber land than if new sites were needed. In addition, nearly all the alternative sites would entail loss of productive forest lands. Potential job losses from timber use

of this land are compensated by jobs for aggregate extraction.

Expansion of the aggregate operation may have a short term impact on elk in the area, which could affect elk hunting somewhat. However, this does not necessarily cause a decrease in elk in the area, and thus should not have a significant, if any, social impact. Protection of fringe vegetation along the Necanicum River will be supportive of elk and other wildlife habitat and protect water quality for fish. The sediment ponds are sufficient to protect water quality and therefore there should be no noticeable social impact regarding fish.

The aggregate proposal will ensure competition in the marketplace and avoid the great bulk of the resource being in the hands of a single operator. This competition serves the public's interest from a social standpoint. The site would be visible from the highway, and it will create some noise, although mitigation measures will keep noise within DEQ limits. As the operation moves eastwardly, noise and visibility impacts will decrease. A social benefit will be the continuation of jobs at the site and the support those jobs provide to the general well being of Clatsop County.

(c) Environmental Consequences.

Trees provide potential habitat for elk on the site. As indicated above, the site already has been stripped of most of its trees, although riparian vegetation exists along the Necanicum River. The proposal will not have a significant

environmental impact on forest resources because of prior action removing trees from the site. Moreover, what impact there will be is temporary, in that the site ultimately will be reclaimed, thereby allowing its future use as forest land. Forest resources along the Necanicum River will be protected for their watershed and wildlife values.

As noted above, expansion of the quarry onto the F-80 site and the use of the RA-5 sites in conjunction therewith may have the effect of displacing some elk in the area. However, retention of a buffer area along the Necanicum River will provide habitat for wildlife, and there is no indication that the proposed mine expansion, onto an anticipated 4.1 acres in the F-80 zone, will cause any loss in elk population. Upon reclamation the site will again become available as elk habitat. The sediment ponds have been shown to be adequate to protect fish habitat and water quality in the Necanicum River. The buffer of vegetative fringe between the river and the active mining area will not get any closer than 150 feet from the bank, thereby adding further protection for water quality. The site is at least 1.5 miles away from any bald eagle nest, so there should be no impacts on sensitive bird nests.

The majority of the proposed F-80 site is a solid basalt rock formation. The proposed mining operation will create a vertical cut slope at the final face of the aggregate mine which will then be reclaimed with overburden material to an appropriate slope surface. The presence of

solid basalt presents no hazard to the stability of adjacent lands. Landslides are not a problem at this site. Mining activity will remove aggregate from the site, changing the appearance of the site, but the site will be reclaimed pursuant to a reclamation plan upon completion of mining activities. The site is one of the few sites of high quality and quantity of rock in the market area, and it has already been disturbed and in use for quite a few years. Sedimentation ponds will protect water resources from adverse impacts caused by mining operations.

(d) Energy Consequences.

Little energy use accompanies the growing of trees, with the exception of occasional spraying, pruning and harvesting activities. Rock extraction and processing would require more energy consumption.

Elk and fish resources entail no energy use. Extraction and processing of rock material requires more energy than these uses.

Energy expenditure necessarily accompanies aggregate extraction, as machinery is required in the extraction of materials, blasting is required, the rock must be processed, and there are transportation costs. At the same time, aggregate provides a correspondingly higher economic return. The proposed site is ideally located close to Highway 101 between Cannon Beach and Seaside, thereby reducing fuel consumption and providing a superior choice with respect to

energy consumption to other sites farther away.

(e) Program to Achieve the Goal.

Considering the economic, social, environmental and energy consequences of locating the proposed use at the Johnson site, the county finds as follows. Aggregate is a scarce resource within the county and within this market area of the county. Often the quality of aggregate is below that acceptable to the Oregon Department of Transportation. A site where there is high quality rock that meets ODOT specifications is a valuable resource. The Johnson site is such a site, enhanced by the fact that extraction and processing at this site will have a minimal effect on forest uses (since most of the merchantable timber has been stripped from the land), that such use will not have adverse impacts on water quality or fish, that displacement of elk, if at all, will be minimal, and in that the use should not have significant social impacts, especially since the use will be moving away from existing residences and the highway. We find that need exists for a site containing significant quantities of commercial quality rock, and that the Johnson site is such a site. We find that the use will not be new to the area, but is an expansion of an existing use which will not require new roads and which will have minimum additional impacts. We find that elk may be affected in small numbers, and that impacts from mining could adversely affect fish, but that this is highly unlikely to happen with the system of sediment ponds installed and the

retention of 150 feet of buffer in the F-80 area between the mining operations and the river. Any negative impacts on wildlife and on timber will be temporary, as the site ultimately will be reclaimed. We determine, on balance, and giving consideration to the mitigation steps proposed by Johnson, that the economic, social, environmental and energy consequences mitigate in favor of allowing the use at this site, with conditions as set forth in the conditional use application, incorporated herein by this reference. We find that this program will achieve Goal 5.

5. Goal 6.

The proposed use involves the expansion of an existing use rather than the establishment of a new use. The present aggregate mining operation meets applicable air, water and land resource quality standards. No change in operations will occur as a result of the proposed continued mining operation. Continuation of the operation will not involve increases in truck traffic, and steps will be taken to minimize noise, which levels will fall within DEQ standards. Water quality will be protected by sedimentation ponding and by retention of a large buffer area between the active mining area and the Necanicum River. We find that Goal 6 is satisfied.

6. Goal 7.

Goal 7 prohibits the planning or location of developments in known areas of natural hazards without appropriate safeguards. We find that the Johnson site is not prone to

landslides or natural hazards. The entire proposed active mining area is a solid basalt rock formation presenting no hazard to the stability of adjacent lands. We note that no new crossings of the Necanicum River are required to support the continuation of aggregate mining into the RA-5 and F-80 areas. We note that the aggregate operation will not occur within a designated floodway. We find that Goal 7 is met by this proposal.

7. Goal 9.

Goal 9 is to improve and diversify the economy of the state. The economic benefits of this proposal have been repeated throughout this exception document, particularly in analyzing the economic consequences for purposes of Goal 2, Part II and Goal 5. We incorporate those portions of this document herein by this reference. We reiterate that this would be a continuation of an existing use, that the demand for a high quality aggregate site in this area is clear, that existing supply is far below the identified need, that this site better meets the need than any other identified site, and that this proposal provides needed competition in the market area. We conclude that Goal 9 is met by this proposal.

8. Goal 11.

Goal 11 requires a timely, orderly and efficient arrangement of public facilities and services. The services at this location would be those necessary to meet the rural use involved. We find that existing water systems and fire protec-

tion systems serving the existing quarry are adequate to serve the continuation of the quarry onto the F-80 and RA-5 properties. We find that no new sources of water nor changes in the level of public facilities and services will be needed to support continued operation of this enterprise. We find that present systems of water, sewer, storm drainage, electrical service and fire protection serving the site will be used, with no increase in service required. We find that no new roads will be required. We conclude that the use meets Goal 11.

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Goal 12, Transportation, requires the county to provide a safe and convenient transportation system. We find that the proposal will have no greater impact on the transportation system than it has currently, and that Goal 11 is satisfied by this proposal. We find that the use will not require any new access points to Highway 101 and that an increase in traffic from the proposed use will not occur. We find that the present road serving the site will be maintained at or above its current level of maintenance.

I. Compliance with Applicable Plan Policies.

We find that the comprehensive plan policies applicable to this exception, plan amendment and zone change are those identified in Johnson's application for a conditional use permit, which application is expressly made a part of the record herein. We also find that the policies identified

therein are satisfied for the reasons expressed therein, we adopt the findings and reasons stated therein as our own, and we incorporate by reference those findings and reasons, and the listing of applicable standards, as if fully set forth herein.

J. Conclusion.

We conclude that the redesignation and rezoning of the Johnson F-80 and RA-5 properties to Conservation Other Uses and QM, respectively, is consistent with and satisfies all applicable statewide goal requirements, including the requirements of Goal 2, Part II (Exceptions) and OAR 660-04-000 et seq., and satisfies all applicable comprehensive plan provisions in the Clatsop County Comprehensive plan. We find that we have addressed all appropriate criteria and conclude that the exception, redesignation and rezoning is justified.

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1. Preventative measures shall be taken to assure that excessive noise, dust, vibrations, and other nuisances associated with mining activities are avoided. The applicant shall follow the recommendations of its noise consultant in his noise study (attached to the application) and coordinate with the noise pollution control section of the Department of Environmental Quality to mitigate possible excessive emissions from rock extraction and sorting operations.

2. The proposed use will continue to use existing settlement ponds and drainage outfalls into the Necanicum River. The applicant shall coordinate with the Department of Fish and Wildlife for to ensure that the existing drainage system remains adequate and that water quality levels in the river are maintained.

3. The applicant shall obtain a valid permit from the Oregon Department of Geology and Mineral Industries for the rock quarry operations.

4. Rock crushing operations shall comply with a Air Contaminate Discharge Permit issued by the Department of Environmental Quality and with the provisions of Section 3.470 of Clatsop County Ordinance 80-14.

5. The applicant shall supply copies of applications and supporting materials for any actions which require state or federal permits.

6. All private access and service roads shall be maintained in a dust-free conditions during intensive operations.

7. Prior to operations which will result in open excavation with a depth of ten feet or more and a slope steeper than one vertical foot to two horizontal feet and which is located within 100 feet of a residential structure, a fence at least four feet high shall be constructed at least 10 feet outside the area of excavation.

8. No mining or structural improvements (except drainage outfalls and access roads) shall occur within the riparian setbacks as specified in Section 4.502. In no case, however, shall the minimum setback from a waterway be less than 25 feet.

9. Clatsop County Department of Planning and Development shall be notified in advance by either the applicant, a lessee or purchaser or rock material which will be used for fill or riprap in areas identified in the Clatsop County Comprehensive Plan as an Estuarine Resource Coastal Shorelands, Beach and Dune area or significant wetland area. All permits required by local, state and federal agencies for fill or riprap must be approved prior to placement of materials in any of the identified areas.

10. Reclamation plans for surface mining operations must show that they are consistent with the Comprehensive Plan.

11. All mining, stockpiling, construction of buildings and accessory structures and signs, and placement of concrete, ready-mix or asphalt batch plants shall obtain a Clatsop County Land and Water Development and Use Permit.

12. No barriers will be constructed to prevent wildlife migration unless required by adjacent residential uses.

13. Extraction operations on the site will be limited to the hours of 7:00am through 10:00pm.

14. Any development, including stockpiling of rock or overburden materials will stay clear of wetlands or will first obtain required state and federal permits.

15. Rock drilling equipment will not exceed 90 dBA [L (50)].

16. Extraction shall be in accordance with the Operation Plan as submitted by the applicant as Exhibit 3 (Wilsey & Ham) except as modified by Conditions 17 and 18 below.

17. Filling is permitted on the 2.1 acre parcel (TL 101). In addition, filling is permitted in the northeast corner of the 12.4 acre parcel (TL 100), northeasterly of a line that begins in the southwest corner of TL 101 and runs southeasterly to a point 150 feet north of the riverbank of the Necanicum River along the property line between TL 100 and TL 301.

18. As filling occurs in the designated portion of TL 100, excavation to a depth of at least 3 feet will be done on the remainder of TL 100 between the designated fill area and a line 100 feet from the riverbank of the Necanicum River. No excavation or any other work will be done in the 100 foot riparian zone along the riverbank.

Ord 88-2

EXCEPTION STATEMENT FOR CLATSOP COUNTY QUARRY/MINING SITES

A. Introduction

Clatsop County's mineral and aggregate resources element, initially adopted on July 23, 1980 and amended on May 23, 1984, inventoried 38 mineral and aggregate sites within the county and identified five of those sites for protection with a special quarry and mining (QM) zone. Those five sites are:

1. Howard Johnson & Sons (Johnson), Department of Geology and Mineral Industries (DOGAMI) No. 04-0011;
2. Clatsop County Road Department (Fishhawk Falls), DOGAMI No. 04-0025;
3. Clatsop County Road Department (Big Creek Pit), DOGAMI No. 04-0027;
4. J.C. Compton Company (Taylorville Quarry), DOGAMI No. 04-0053;
5. Oregon State Highway Department (Elderberry Quarry), DOGAMI No. 04-0055.

On February 13, 1985, Clatsop County's Comprehensive Plan and Land Use Regulations, including the county's mineral and aggregate resource element, were acknowledged by the Land Conservation and Development Commission (LCDC) as in compliance with the statewide planning goals.

The land upon which the five QM-zoned sites are located are forest lands which, were it not for the aggregate use, would be protected under statewide Goal 4, Forest Lands, and LCDC's administrative rule protecting forest lands. Until recently, statewide Goal 4 was interpreted to prohibit

aggregate mining where the aggregate is not used primarily in forest practices for logging roads. To allow mining primarily for nonforest uses, an "exception" to Goal 4, pursuant to statewide Goal 2 and ORS 197.732, was required. A recent amendment to LCDC's administrative rule, OAR 660-04-010(1)(b), now provides that the mining and primary processing of aggregate and other mineral resources on forest lands does not require an exception to Goal 4, if such uses will not substantially interfere with the conservation of forest uses. However, a valid question exists whether that rule in fact is consistent with the language of Goal 4. If it is not, an amendment to Goal 4 would be necessary to achieve that result.

Subsequent to LCDC's acknowledgement of Clatsop County's plan, the county established one additional QM-zoned site -- the Bayview site. An exception for this QM-zoned site was taken in 1987. However, for the five original QM-zoned sites, no exception was ever taken. This places the sites in an uncertain position from a legal standpoint. While no one has challenged or threatened to challenge the validity of any of the existing operations, the possibility for legal challenge remains. This exception statement is prepared for the purpose of eliminating the potential for such a challenge, recognizing that a legal challenge would not serve the best interest of the county, it residents, or its quarry operators. This exception statement also is prepared for the purpose of providing one

unified document addressing all QM-zoned sites within Clatsop County.

It has been brought to the county's attention that for one QM-zoned site, the Johnson site, the boundaries of the area zoned QM do not correspond to all of the Johnson property, as was intended in 1983. This occurred in part because the Johnsons had acquired an additional 10.2 acres for their operation after initial inventories had been completed, and in part, because the county was not aware that a portion of the Johnson mining operation included facilities on a small portion of RA-5 zoned land immediately adjacent to the area zoned QM. Hence, as part of this exception statement, the Johnson site boundaries will be redefined.

B. Original QM Sites

LCDC Goal 2 and ORS 197.732 provides that a county may take an exception to a goal, such as Goal 4, when:

1. The land subject to the exception is physically developed such that it is no longer available for uses allowed by the applicable goal;

2. The subject property is irrevocably committed to uses not allowed by the applicable goal; or

3. Reasons justify why the applicable goal should not apply.

Each of the five original QM-zoned sites represents a long-time quarry operation. Each site has been used extensively for

mining purposes to the extent that it is no longer available for uses allowed by the applicable goal. While it can be demonstrated that such sites are also irrevocably committed to mineral and aggregate use, and needed for such use, it is sufficient here to show that these sites are physically developed to such uses.

1. Johnson QM Site TSN, R10W, Sec. 4W.M., DOGAMI No. 04-0011.

This site is located east of U.S. Highway 101, approximately .75 miles north of the junction with State Highway 26 (the Cannon Beach Junction). The site is 16.3 acres, of which approximately 15 acres are actively used as an aggregate quarry. The actual quarry operation is approximately 1000 feet east of the highway, although there are some stockpiles of materials along the entrance road.

The site is adjacent to the Necanicum River, which is a Class I stream as defined by the Oregon Department of Fish and Wildlife. The active quarry area is entered via a private road and bridge crossing the river.

The site has been used as an active commercial aggregate quarry for over 20 years. Recent drilling by H.G. Schlicker & Associates, geologic consultants, have determined that approximately 70,000 cubic yards of crushed rock remains to be mined above the floor of the quarry. An additional 215,000

cubic yards of rock is available from excavations below the current quarry floor (between -15 and 45 mean sea level).

A photographic chronology demonstrates that the site has been constantly used for over 20 years as an active quarry and that any timber that was originally present on the site was long ago stripped. The continuous mining of this site and the absence of trees are sufficient to demonstrate that the site is no longer available for uses allowed by Goal 4.

In concluding that Goal 4 uses are not appropriate on this site, the county notes that mineral and aggregate uses are a recognized Goal 5 resource and that such uses are typically found on forest lands in Clatsop County.

The surrounding lands represent a mix of uses. To the north is the City of Seaside reservoir, which is generally surrounded by timber stands. To the east is forest land that has been mostly stripped of timber resources. To the south and west is land zoned and used as rural residential lands with seven residences located close to the quarry. The land immediately south of the quarry is zoned residential, but is generally unused and absent of any standing timber except for a riparian fringe of mixed trees.

The fact that the site is fully developed and actively used as a quarry site and has significant quantities of aggregate resources remaining, renders the site no longer available for forest uses permitted by Goal 4. The county

finds therefore, for the reasons previously stated that the site is irrevocably committed to quarrying activities and that the land is rendered impracticable for forest uses.

The map identifying the location of this site, and the aerial photograph of the site demonstrating the active aggregate mining operation, are expressively made a part of this exception.

2. Fishhawk Falls T6N, R7W, Sec. 31W.M., DOGAMI No. 04-0025.

This site is located off the Nehalem Highway, Highway 202, approximately two miles west of the elk reserve at Jewell. It is located upon an approximately 50 acre parcel; about five acres of that parcel have been zoned QM. A wooden bridge leads to the aggregate site. There are no existing public facilities serving this site.

The quarry site has been used for aggregate extraction for 20 years. Surrounding properties are owned by timber companies and are presently being logged. Large clear-cut areas surround the site.

Photographs of the Fishhawk Falls Quarry indicate that timber was long ago stripped from the site and that the site has been extensively used for the mining of rock. Those photographs conclusively demonstrate that this site has been developed as a quarry. The mining of this site, and the absence of trees on this site, are sufficient to demonstrate that the site is no longer available for uses allowed by

Goal 4. In reaching this conclusion the county notes that mineral and aggregate use is a recognized Goal 5 resource, and that such resources, in Clatsop County, are typically found on forest lands. The fact that no structures or public facilities serve this site (other than private roads) does not detract from the fact that this site has been developed as a quarry site, and that the use of the site as a quarry renders it no longer available for forest uses permitted by Goal 4. The county also finds, for the reasons stated above, that the extensive quarrying operations and activities which have occurred on this site render the site irrevocably committed to quarrying activities and render the land impracticable for forest uses.

The map identifying the location of this site, and the photographs demonstrating the aggregate use of this site, are expressly made a part of this exception.

3. Big Creek Pit T8N, R7W, Sec. 29 W.M., DOGAMI No. 04-0027

The Big Creek Pit is located off the Columbia River Highway (Highway 30), approximately two miles southwest of Knappa. The QM site, approximately six acres in size, is owned by Boise Cascade, which also owns an adjoining 22,000 acres in timber use.

The quarry is actively used to provide rock for the construction of logging roads. Approximately three to four acres are mined periodically, producing 50,000 tons of rock

every two years. Rock crushing and removal machinery are located on site. A well maintained clay and gravel road leads to the property and to a nearby tree farm owned by Boise Cascade.

Photographs of the site show that merchantable timber has been removed from the site and that the site has been extensively mined for rock. The photographs provide substantial evidence that the site is physically developed as a quarry site. Those photographs also demonstrate that this particular property is irrevocably committed to aggregate use and that it is not practicable to use this particular acreage for forest related uses notwithstanding the fact that it is surrounded by forest land. Indeed, it is clear from the supporting evidence that the gravel extracted from this site is important to forest operations on the adjacent lands, because the site provides rock for the construction of logging roads.

The map identifying the location of the Big Creek Pit, and the photographs of the pit, are expressly made a part of this exception document.

4. Taylorville Quarry T8N, R6W, Sec. 35 W.M., DOGAMI No. 04-0053

The Taylorville Quarry is owned by the Oregon Department of Forestry. It is located less than one-half mile west of Westport, off the Old Columbia River Highway. A 100 yard gravel road provides access to the site.

The quarry is currently used for rock and gravel mining operations, and has been used as a quarry for 35 years. The quarry itself is a two-tier operation. The lower level, at one time, accommodated portable crushing and mixing plants. It appears to be presently inactive as evidenced by accumulations of trash and weed growth. A gravel road leads to the upper level which is covered by quarry rock. This level appears productive and looks as if it is periodically mined.

Surrounding land consists of large tracts of forest and clear-cuts. Adjoining parcels to the south are being logged and are heavily dotted with logging roads. Additionally, power line transmission poles from Bonneville Power rise from these parcels. To the west, less than 1000 feet, a cul-de-sac consisting of several residences exists. The quarry and the homes are separated by trees and underbrush.

During the 1950s and 1960s this site was used as a material source in the relocating construction of the present US Highway 30. In the 1970s various crushing operations occurred on site to supply rock for maintenance of highway and logging roads. The site contains no permanent structures.

Photographs of the site show that the site no longer contains merchantable timber and has been extensively developed as a quarry. The photographs and the evidence identified above constitute substantial evidence that the land has been and remains physically developed for quarry purposes. The county

also finds that the extent and nature of such quarry operations renders this land committed to quarry and mining operations, and that forest operations on this particular site would be impracticable. The map and photographs for this site are expressly made part of this exception document.

5. Elderberry Quarry T4N, R7W, Sec. 3, W.M. Tax Lot 500, DOGAMI No. 04-0055

The Elderberry Quarry is owned by the Oregon State Highway Division. It is located off of the Sunset Highway, US 26, approximately 3.5 miles east of Elsie. The site is approximately five acres in size and is surrounded by large areas of clear-cut. An 800-yard overgrown clay and gravel road provides access to the quarry site. A large chained gate at the highway entrance restricts entry.

The quarry is presently inactive. Several test holes and large piles of quarry rock provide substantial evidence that the site was previously mined. Surrounding land consists of large tracts of forest that have been extensively logged. To the west of the access road entrance, less than 1000 feet, a residence exists. Additionally, a hotel/dining establishment is located less than half a mile from the site.

Photographs of the site demonstrate that much of the site and the surrounding area have been physically developed. The county also finds that the extent and nature of mining activity on the site renders this land committed to aggregate use and makes the land impracticable for forest use.

The map identifying the location of the Elderberry Quarry, and the photographs of the site, are expressly made a part of this exception document.

C. Bayview Quarry T5N, R10W, Sec. ____, W.M., Portions of Tax Lots 700 and 1000, and T5N, R10W, Sec. 4, W.M., Portions of Tax Lot 100.

The Bayview site consists of two irregularly shaped parcels located west of U.S. Highway 101 near the intersection of State Highway 26. The area is approximately 30 acres in size and is owned by Cavenham Forest Industries (formerly Crown Zellerbach). Bayview Transit Mix, Inc. has obtained a lease from Cavenham to conduct aggregate extraction and related activities on the property. The site is located concurrent with an existing aggregate pit that has been used for many years by Cavenham as a source of rock. The general area has been logged and does not presently support marketable timber.

On April 6, 1986, Clatsop County approved an exception for this site. That decision, Ordinance No. 86-10, was appealed to the Land Use Board of Appeals (LUBA), which remanded the matter back to the county. Subsequently the county received considerable additional testimony on the application which demonstrated compliance with the applicable standards in ORS 197.732(1)(c), Goal 2, Part II (Exceptions), and LCDC's administrative rules governing exceptions and Goal 5 resources. Following receipt of that testimony and its review against applicable standards and the issues identified by LUBA for

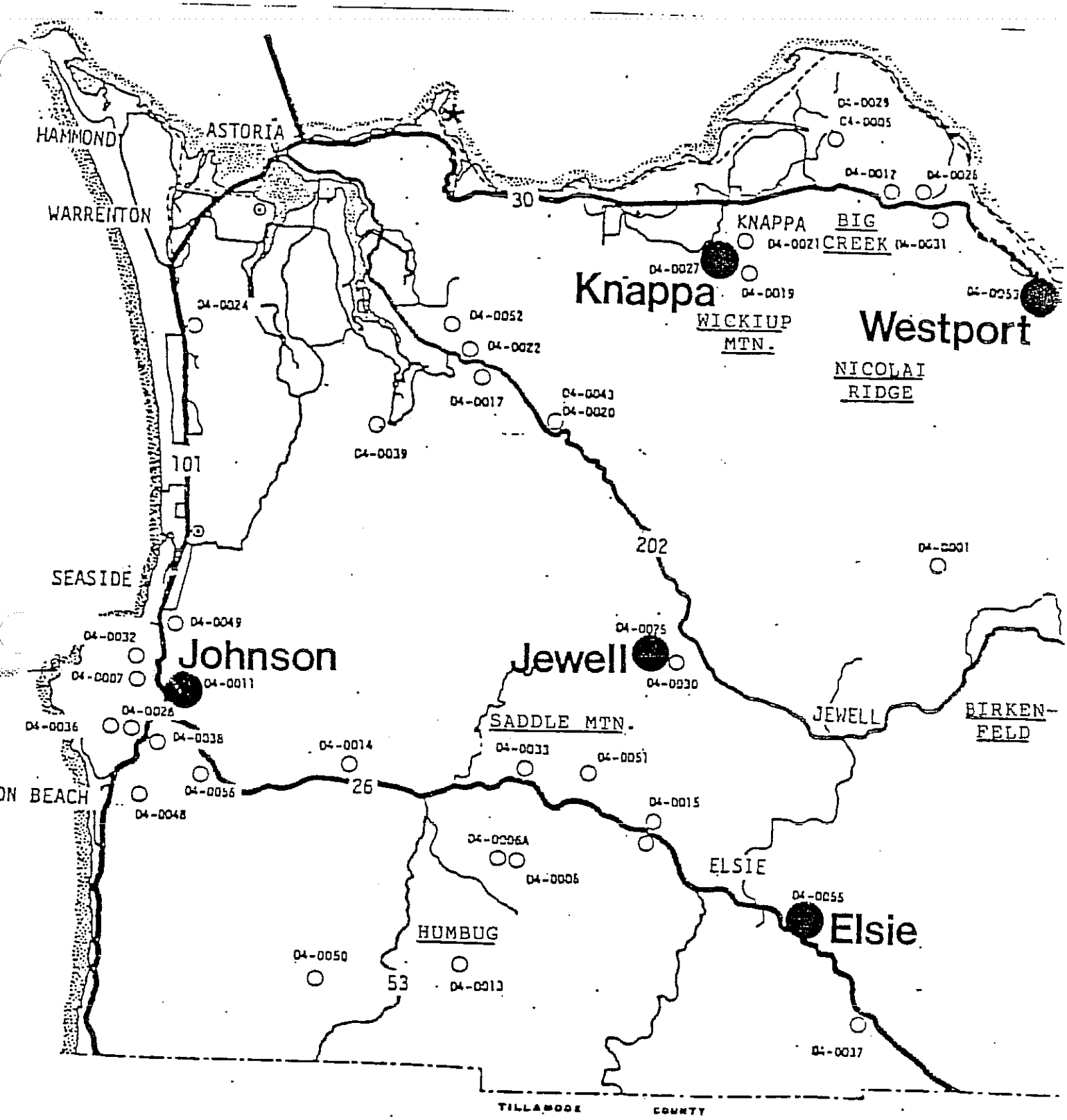
county consideration on remand, the county, on December 17, 1987, adopted Ordinance No. 87-18, approving the exception for the Bayview site and approving a plan designation amendment and zone change from Conservation Forest Lands and F-80, respectively, to Conservation Other Resources and QM. The exception document attached to Ordinance No. 87-18 is attached to this document and made a part of this exception document and Clatsop County's Comprehensive Plan.

D. Johnson F-80/RA-5 Site T5N, R10W, Sec. 4, W.M., Tax Lots 100, 101 and 301.

The Johnson Quarry, also known as the "Traprock" Quarry, is located about .75 miles north of the junction of Highway 26 with U.S. 101, on U.S. 101. The site consists of four parcels, one of which, described above, was among the five original sites zoned QM by the county. The original site, Tax Lot 200, is 16.3 acres in size. The adjacent parcels, Tax Lots 301, 100 and 101, are respectively 10.45, 12.44 and 2.06 acres in size. Tax Lot 301 was designated Forest Conservation and zoned F-80. Tax Lots 100 and 101 were designated Rural Land and zoned RA-5.

Clatsop County hereby takes an exception to Goal 4 for the Johnson Quarry. The exception is taken as part of the county's process of establishing a single exception document for its QM-zoned mineral and aggregate sites. The exception redefines the boundaries of the Johnson QM site to include Tax Lots 301, 100 and 101. The exceptions document is attached hereto and made a part of this exceptions document and made a part of

Clatsop County's Comprehensive Plan.



Zoned QM Sites

● Zoned QM (Quarry & Mine) Sites

○ Other sites with permits from Oregon State Department of Geology and Mineral Industries

Figure 1

EXHIBIT "A"

Part 2. Amendment to Clatsop County Goal 5, Open Spaces, Scenic/Historic Areas and Natural Resources County-wide Element and Mineral and Aggregate Resources

EXHIBIT "A"

Mineral and Aggregate Resources Inventory QM Sites

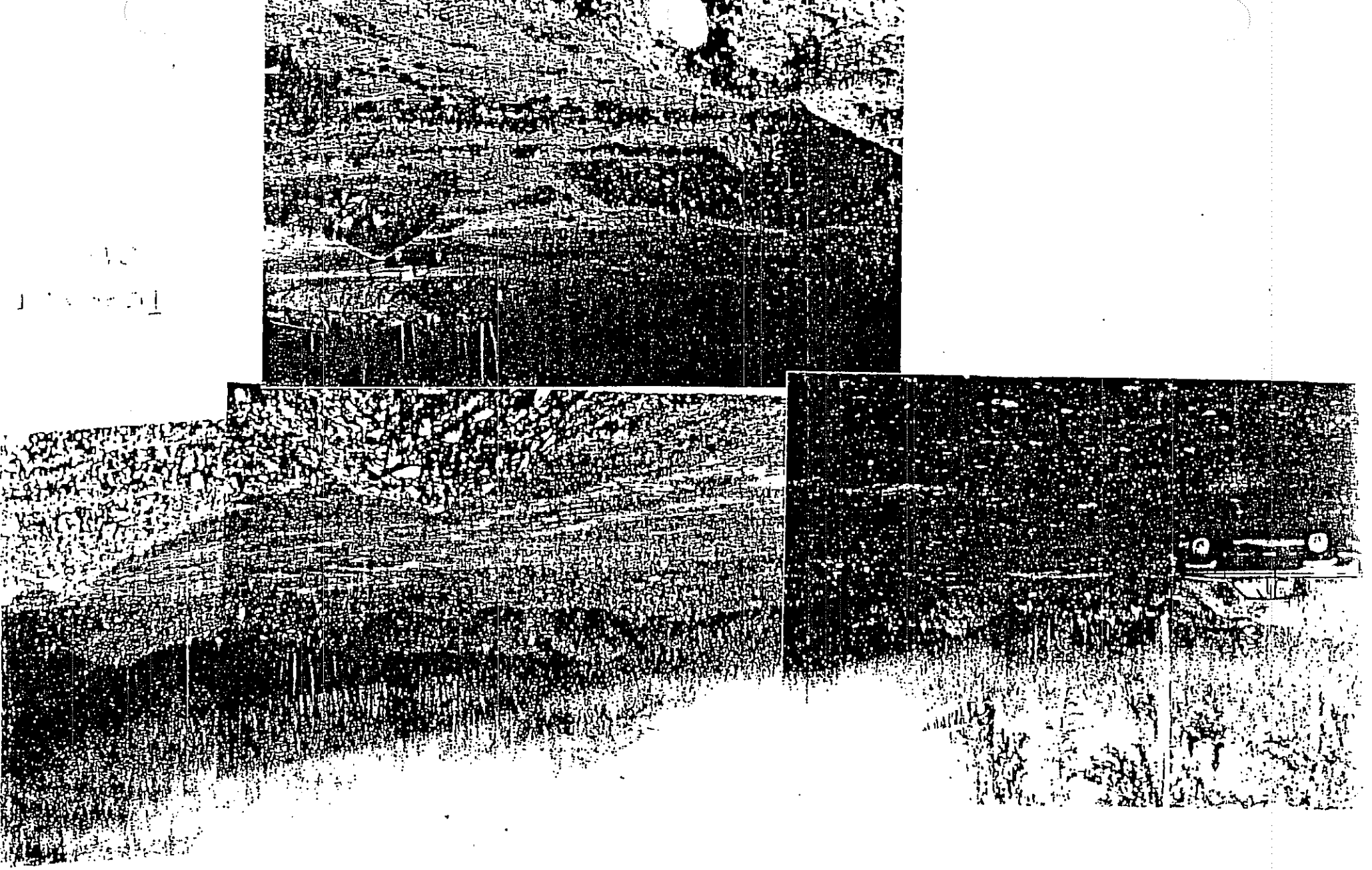
1. Fishhawk Falls (Clatsop County Road Department).
2. Big Creek Pit.
3. Taylorville Quarry.
4. Elderberry Quarry.
5. Bayview Transit Mix (Ord. 87-11, October 28, 1987).
6. Howard E. Johnson & Sons (Ordinance adopted April 13, 1988).

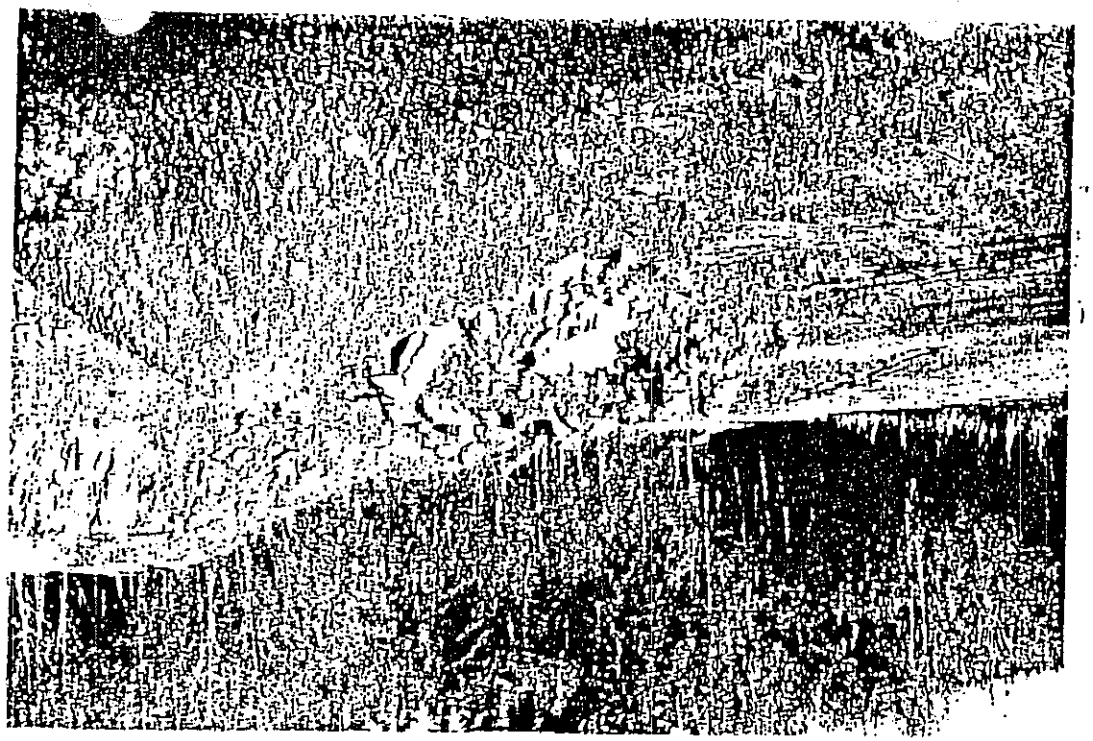
FISHHAWK FALLS (Clatsop County Road)

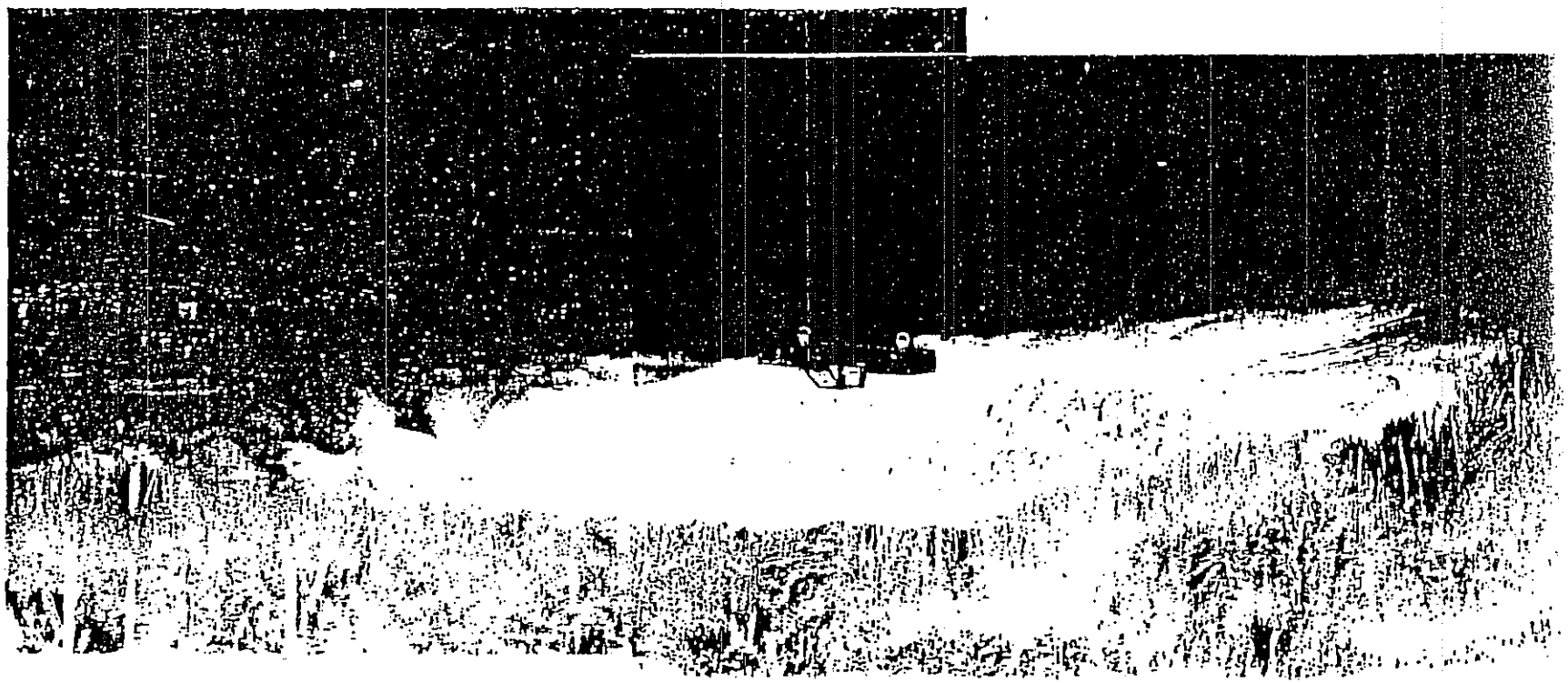
OWNER:	Clatsop County P. O. Box 179 Astoria, OR
LOCATION:	Nehalem Highway Two miles west of Elk Reserve at Jewell Adjacent to B. Haslett's residence
MAP NO.:	TWP 6N, RGE 7W, Sec. 31
TAX LOT NO.:	600
DOGAMI:	04.0025
ACREAGE:	50 acre parcel . . . 1 acre is active
PLANNING DEPT. INFORMATION:	Attached
CURRENT USE:	Maint. quarry rock for road repair
LENGTH OF USE:	Twenty (20) years
ADJACENT USE:	More quarries (Johnson & State), residences
ACREAGE MINED:	1
CURRENT DEVELOPMENT ON SITE:	Wooden bridge, gravel road leading to site - nothing else
EXISTING PUBLIC FACILITIES:	None
FOREST USE IMPRACTICABILITY DATA:	None
EXISTING LEVELS OF DEVELOPMENT INFORMATION:	None
AREA PARCEL PATTERN:	See attached map F-80 AF.20 OPR QM

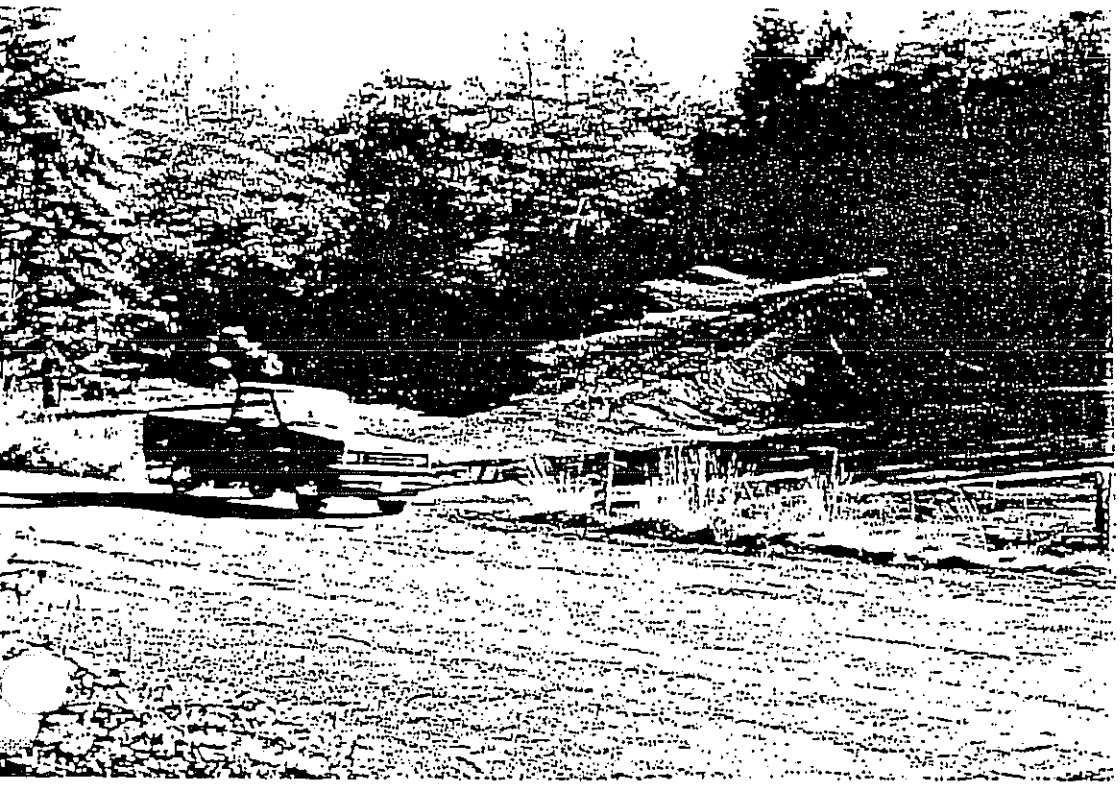
OBSERVATIONS: This site is located 500 yards from the Nehalem Highway and a residence (Boyer Haslett). A wooden bridge skirts the Nehalem River adjacent to the road and a gravel road leads up to the quarry. The 50 acre parcel is heavily wooded and shows evidence of logging activity. The quarry site is relatively small (1 acre), but appears to be quite productive.

Two other quarries exist in the immediate area. One owned by the State and one by Allied J. & H. Lumber. To the east and west within one mile are several residences. The quarry is also within one mile of the Jewell Elk Reserve. Surplus rock from Fishhawk Quarry is stored in a holding area adjacent to the highway approximately a half a mile east from the quarry entrance. Most of the parcels in the area are owned by timber companies and are presently being logged. Hugh areas of clear-cut surround the quarry and the nearby reserve. The Town of Jewell is two miles east, Elsie and Highway 26 are ten miles south.









04-0025

OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
1534 QUEEN AVENUE SE, ALBANY, OREGON 97321
TELEPHONE: (503) 967-2039

GRANT OF TOTAL EXEMPTION

I.D. # 04-0025

Clatsop County Road Department
County Courthouse
Astoria, Oregon 97103

Site Identification
Fishhawk Falls

¼Sec.___ Sec. 31 Twp. 6N Rge. 7W

County Clatsop

Pursuant to ORS 517.750 through 517.990 as amended the above named permittee is granted an exemption from the requirements for a reclamation plan and a bond for this site.

THE BASIS FOR GRANTING THIS TOTAL EXEMPTION IS SHOWN BELOW

☐ 1. Access roads' borrow pit or quarry (ORS 517.750(13)(b)).

☐ 2. On-site construction (ORS 517.750(13)(b)).

☒ 3. The site is less than one acre and a total of less than 5,000 cubic yards of mineral have been or will be removed per year (ORS 517.750(13)(b)).

☐ 4. The site has qualified for a Grant of Limited Exemption as defined by ORS 517.770(1)(a) or (c) but annual production is less than 5,000 cubic yards.

☐ 5. Other.

ISSUANCE OF THIS GRANT OF TOTAL EXEMPTION IS NOT A FINDING OF COMPLIANCE WITH STATEWIDE PLANNING GOALS OR THE ACKNOWLEDGED COMPREHENSIVE PLAN. THE APPLICANT MUST RECEIVE LAND USE APPROVAL FROM LOCAL GOVERNMENT BEFORE USING THIS EXEMPTION.

PENALTIES: IT IS THE RESPONSIBILITY OF THE PERMITTEE TO NOTIFY THE DEPARTMENT PRIOR TO EXPANSION BEYOND THE LIMITS IN EXISTENCE AS OF THE DATE SHOWN ABOVE. FAILURE TO DO SO PLACES THE PERMITTEE IN THE POSITION OF CONDUCTING A SURFACE MINING OPERATION WITHOUT A PERMIT AND SUBJECT TO THE PENALTIES SET FORTH IN ORS 517.990(3) OR (5).

Issued this 1st day of August 19 86

STATE OF OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

By E. Frank Schnitzer
E. Frank Schnitzer

Title Reclamationist, Mined Land Reclamation

SMLR-11 2/85

OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
1129 SE SANTIAM ROAD, ALBANY, OREGON 97321
TELEPHONE: (503) 967-2039

RECEIVED
Planning
& Development

GRANT OF TOTAL EXEMPTION

I.D. # 04-0025

Clatsop County Road Department
County Courthouse
Astoria, Oregon 97103

Site Identification
Fishhawk
¼Sec.___ Sec. 31 Twp. 6N Rge. 7W
County Clatsop

Pursuant to ORS 517.750 through 517.990 as amended the above named permittee is granted an exemption from the requirements for a reclamation plan and a bond for this site.

THE BASIS FOR GRANTING THIS TOTAL EXEMPTION IS SHOWN BELOW

☐ 1. Access roads' borrow pit or quarry (ORS 517.750(13)(b)).

☐ 2. On-site construction (ORS 517.750(13)(b)).

☒ 3. The site is less than one acre and a total of less than 5,000 cubic yards of mineral have been or will be removed per year (ORS 517.750(13)(b)).

☐ 4. The site has qualified for a Grant of Limited Exemption as defined by ORS 517.770(1)(a) or (c) but annual production is less than 5,000 cubic yards.

☐ 5. Other.

ISSUANCE OF THIS GRANT OF TOTAL EXEMPTION IS NOT A FINDING OF COMPLIANCE WITH STATEWIDE PLANNING GOALS OR THE ACKNOWLEDGED COMPREHENSIVE PLAN. THE APPLICANT MUST RECEIVE LAND USE APPROVAL FROM LOCAL GOVERNMENT BEFORE USING THIS EXEMPTION.

PENALTIES: IT IS THE RESPONSIBILITY OF THE PERMITTEE TO NOTIFY THE DEPARTMENT PRIOR TO EXPANSION BEYOND THE LIMITS IN EXISTENCE AS OF THE DATE SHOWN ABOVE. FAILURE TO DO SO PLACES THE PERMITTEE IN THE POSITION OF CONDUCTING A SURFACE MINING OPERATION WITHOUT A PERMIT AND SUBJECT TO THE PENALTIES SET FORTH IN ORS 517.990(3) OR (5).

Issued this 31st day of July 19 85

STATE OF OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

By E. Frank Schnitzer

E. Frank Schnitzer
Title Field Representative, Mined Land Reclamation

CO

SMLR-11 2/85

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
1129 SE SANTIAM ROAD, ALBANY, OREGON 97321
TELEPHONE: (503) 967-2039

IDENT. NO. 04-0025

JAN 1984
RECEIVED

☒ GRANT OF TOTAL EXEMPTION
☐ GRANT OF LIMITED EXEMPTION

Clatsop County Road Department
Clatsop County Courthouse
Astoria, OR 97103

Site Identification
Fishhawk Falls

¼Sec. SW Sec. 32 Twp. 6N Rge. 7W

County Clatsop

Pursuant to ORS 517.750 to 517.900 as amended and subsection (4) of ORS 517.990, the above named operator is granted an exemption from the requirement for a reclamation plan and a bond for the property described above and in the Application dated December 27, 1983.

THE BASIS FOR GRANTING THE EXEMPTION IS SHOWN BELOW.

☐ 1. The land was affected by surface mining before 7-1-72 (ORS 517.770(1)(a)).
☐ 2. The land was affected by surface mining prior to 1-1-81 as defined by ORS 517.770(1)(c).
☐ 3. Access roads' borrow pit or quarry (ORS 517.750(12)).
☐ 4. On-site construction (ORS 517.750(12)).
☐ 5. The site is less than one acre and a total of less than 5,000 cubic yards of mineral have been or will be removed per year (ORS 517.750(12)).
☒ 6. The site is inactive.
☐ 7. Other.

THIS CERTIFICATE DOES NOT RELIEVE THE PERMITTEE FROM THE REQUIREMENTS OF CITY, COUNTY, OR OTHER GOVERNMENT AGENCY AUTHORITY.

PENALTIES: IT IS THE RESPONSIBILITY OF THE OPERATOR TO NOTIFY THE DEPARTMENT IMMEDIATELY IF, BECAUSE OF CHANGED CONDITIONS, THE OPERATOR'S EXEMPTION OR EXCLUSION UNDER THE ACT IS ALTERED. FAILURE TO DO SO BY THE OPERATOR PLACES HIM IN THE POSITION OF CONDUCTING A SURFACE MINING OPERATION WITHOUT A PERMIT AND SUBJECT TO THE PENALTIES SET FORTH IN ORS 517.990(4).

THIS TOTAL EXEMPTION IS RECOGNIZED FOR INACTIVE STATUS. NOTIFICATION TO THE DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES IS REQUIRED BEFORE RESUMPTION OF MINING.

Issued this 3rd day of January 1984.

STATE OF OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

By E. Frank Schnitzer

Title E. Frank Schnitzer, FIELD REPRESENTATIVE, MINED LAND RECLAMATION

MLR-10 Rev. 9/11/81

Sec 32

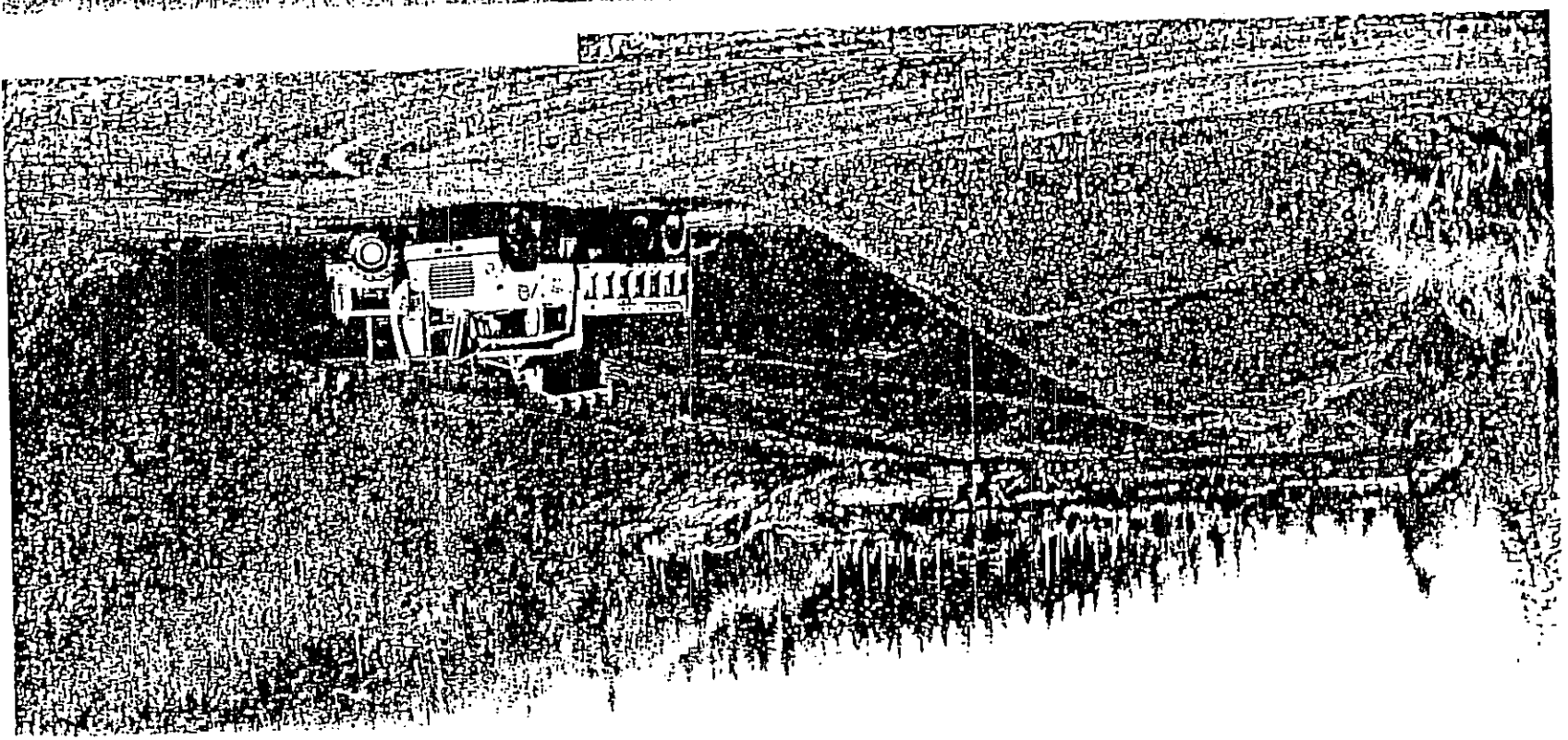
BIG CREEK PIT (Oregon State Highway)

OWNER:	Boise Cascade Route 6, Box 260 Knappa, OR
LOCATION:	Columbia River Highway (Highway 30) 2 miles S.W. of Knappa
MAP NO.:	TWP 8N, RGE 7W, Sec. 29
TAX LOT NO.:	Part of road
DOGAMI:	04.0027
ACREAGE:	Six acres
PLANNING DEPT. INFORMATION:	None
CURRENT USE:	Quarry rock used to construct logging roads
LENGTH OF USE:	Developed by railroad in 1904
ADJACENT USE:	Boise Cascade owns surrounding 22,000 acres Timber uses . . . State Fish Hatchery within one mile
ACREAGE MINED:	3-4 acres periodically . . . 50,000 tons of rock are mined every two years, currently active
CURRENT DEVELOPMENT ON SITE:	Rock crushing and removal machinery
EXISTING PUBLIC FACILITIES:	None
FOREST USE IMPRACTICABILITY DATA:	
EXISTING LEVELS OF DEVELOPMENT INFORMATION:	Nearby tree farm
AREA PARCEL PATTERN:	QM F-80 F-38 AF-20 RA-2

OBSERVATIONS: This site is located on a large parcel of timber owned by Boise Cascade. Access to the quarry is a well maintained clay and gravel road leading to the timber company's tree farm. This road runs parallel to Big Creek.

The quarry is small - less than five acres in size and fenced. Paving material is presently being mined. I observed a large dozer loading County-owed dump trucks at a rate of 2 per hour (estimate).

The immediate area consists of timber and logged off areas. To the north, approximately one-quarter of a mile to one-half a mile, a large subdivision exists. Several other dwellings are located within several thousand feet of the site as is a fish hatchery. Both are separated from the quarry by trees and undergrowth. The Town of Knappa is approximately two miles north.



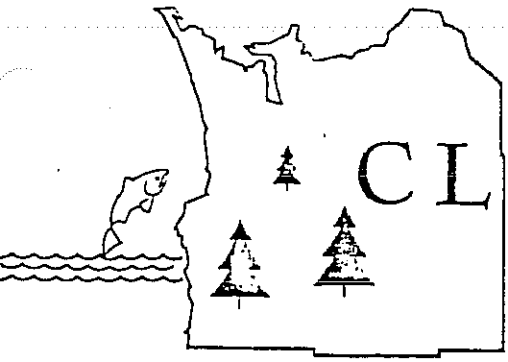
TAYLORVILLE QUARRY (Oregon State Highway)

OWNER:	Oregon Department of Forestry
LOCATION:	Between Westport and Taylorville off Old Highway 30
MAP NO.:	TWP 8N, RGE 6W, Sec. 35
TAX LOT NO.:	300
DOGAMI:	04.0053
ACREAGE:	
PLANNING DEPT. INFORMATION:	Attached
CURRENT USE:	Quarry rock and gravel
LENGTH OF USE:	35 years
ADJACENT USE:	Small subdivision, several residential parcels - less than 1/4 mile from Westport. Surrounded by ongoing logging operations.
ACREAGE MINED:	
CURRENT DEVELOPMENT ON SITE:	
EXISTING PUBLIC FACILITIES:	
FOREST USE IMPRACTICABILITY DATA:	
EXISTING LEVELS OF DEVELOPMENT INFORMATION:	
AREA PARCEL PATTERN:	F-80 F-38 AF-20 RA-1 RA-2 RA-5

OBSERVATIONS: This quarry is located less than 1/2 mile west of Westport off the Old Columbia River Highway. A 100 yard gravel road provides access to the site. The quarry itself is a two-tier operation. The lower level, at one time, accommodated portable crushing and mixing plants. It appears to be presently inactive as evidenced by accumulations of trash and weed growth. A gravel road leads to the upper level which is covered by quarry rock. This level appears productive and looks as if it is periodically mined.

The immediate area consists of large tracts of forest and clear-cut. Adjoining parcels to the south are being logged and contain hundreds of logging roads. Additionally, power line transmission poles from Bonneville Power rise from these parcels. To the west, less than 1000 feet, a cul-de-sac consisting of several residences exists. The quarry and the homes are separated by trees and underbrush. One residence is located next to the quarry entrance.

04-0053



CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103
February 6, 1980

TO: PLANNING COMMISSION

FROM: DEPARTMENT OF PLANNING AND DEVELOPMENT

RE: TEMPORARY USE PERMIT 04-0053

Applicant: J.C. Compton Company, Box 86, McMinville, Oregon 97128.

Owner: Oregon State Department of Forestry.

Request: Approval of a Temporary Use Permit to allow temporary operation of portable gravel crushing and mixing plants.

Location: Quarry site is in the Knappa area on Old U.S. Highway 30 between Westport and Taylorville. The property is further described as Tax lot 300, Section 35, Township 8 North, Range 6 West, Willamette Meridian. Paving operations would be carried out on portions of Highway 30 between Knappa Junction (mile post 83) and Clatskanie (mile post 60.79).

BACKGROUND:

1. Applicant contacted the Department of Planning and Development in mid-January to inquire if a permit would be required by the County for the operation of two portable gravel crushing and mixing plants on land leased from the State Department of Forestry.

2. Staff sent applicant a Temporary Use Permit form and a copy of a staff report prepared in April, 1979 for a similar request to provide an indication of the types of concerns staff would have about the proposed operation.

3. Applicant returned the completed application, plot plan and an additional three page "Questions and Answers" memo concerning the proposed use (see Attachments A and B).

4. Agency comments were requested and 21 public notices were sent out. A small subdivision is nearby and all the property owners in it received notices. To date, only the State Board of Forestry has returned comment, which was favorable to the operation.

STAFF FINDINGS AND RECOMMENDATIONS:

(1) Under Section 5.500 (Temporary Uses) of Zoning Ordinance 66-2 a Temporary Use Permit may be granted when a temporary use is necessary to meet the needs of a special situation not allowed outright or conditionally in the zone in which the use will occur. Additionally, the proposed use must not qualify as a continuation of a non-conforming use, not permitted by right nor be utilized as a means to abrogate the intent, purpose or procedure of the Comprehensive Plan and Zoning Ordinance.

(2) No temporary permit may be granted that would create a permanent rezoning, confer special privileges for which other property within the same zone may not be equally eligible nor result in hardship when the use permit expires.

(3) Under subsection 5.503 (Allowable Temporary Uses) the proposed use would fall under category "C. New Structures":

> "A use involving a new structure of a temporary nature necessary for the physical or economic welfare and development of the primary permitted use of the property may be granted a temporary permit by the Planning Commission subject to a finding that the new structure permitted by the temporary use permit shall be removed at the end of the temporary permit period."

(4) Subsection 5.504 enumerates the standards to be utilized by the Planning Commission in determining approval or denial of a temporary use request (see Attachment C). Staff makes the following comments concerning these standards:

A. Both the gravel crusher and batching plat are temporary structures which will be removed when road work is completed by applicant. In addition, both plants will be set up and operated within the area of an existing rock quarry.

B. With the exception of the small subdivision in the vicinity previously mentioned, lands surrounding the site are primarily large lot rural properties and forest resource lands. The site and surrounding properties are zoned Conservation under the Northeast Community Plan. The Wauna Rural Service Area boundary is nearby.

C. (1) As mentioned previously, the operation will be limited to the existing quarry site. The material produced will be transported by truck to application points along Highway 30.

(2) The quarry provides an economically advantageous site for the preparation of paving materials because of its proximity to the stretches of highway to be resurfaced. Applicant indicates a traffic volume of approximately 15 trucks per hour to and from the site during hours of operation (between approximately 7 a.m. to 7 p.m.). Portable chemical toilets will provide sanitary facilities for workers on the site.

(3) Applicant indicates there is a substantial buffer of trees between the quarry site and the closest concentration of homes. Staff investigation confirms this statement.

(4) The operation will access directly onto and off old Highway 30. The capacity of the Highway to meet the estimated traffic load generated by the operation appears good.

(5) As mentioned previously, the quarry site is buffered by natural vegetation from neary residential development. The relative isolation of the parcel should also help to minimize any nuisances the operation might generate for residential development in the area.

(6) The quarry operation will be of a relatively short duration (less than two months). Applicant will remove all equipment and materials at the end of the project. Therefore, impacts on the surrounding area can also be expected to be temporary.

D. No hardship to applicant is likely upon termination of the temporary use permit. Applicant's request is consistent with the intent and goals setforth in subsections 5.501 and 5.502 of the Zoning Ordinance.

(5) Subsection 5.505(B) allows the Planning Commission to attach conditions in order to protect public health, safety and welfare or the public interest from present or potential affects resulting from the temporary use permit. Such conditions may include screening requirements, control of noise, odors, vibrations etc., regulation of points of ingress and egress and specific time limits up to one year for the development of the use. Such conditions can help to insure conformance with the standards of the ordinance.

STAFF RECOMMENDATIONS:

1. Based on the information presented in this report and the information submitted by applicant, staff recommends approval of this request.

2. Staff also recommends that the following conditions be included with approval:

   a). Depending on specific recommendations from the State Highway Division, that signs warning motorists of truck traffic be placed on Old Highway 30 at least 100 feet on either side of the entrance to the quarry site.

   b). Because of the noise and vibrations generated by the plants and truck traffic, that the hours of full operation be strictly limited to between 7 a.m. and 7 p.m. Applicant has indicated the crushing operation will be carried out 24 hours a day, 5 days a week. The Planning Commission may wish to set some limitation on this single activity as well if it finds such operation would create a nuisance.

c). Since applicant indicates a total time period of under two months between February and June for the operation, that the permit be granted for a period of six (6) months.

Respectfully submitted,

Alwin M. Turiel

Alwin M. Turiel, Zoning Administrator

AMT:ta

TO: Clatsop County Planning Commission

SUBJECT: Additional Information as part of J. C. Compton Company Temporary Use Permit application regarding State of Oregon Taylorville quarry.

The following are answers to possible questions relating to the J. C. Compton Company temporary permit regarding the Taylorville quarry:

1. What is the history of this quarry site? During the 1950's and '60's this quarry was used as a material source in the relocating construction of the present US 30 in that vicinity. In the 1970's various crushing operations have been used in supplying rock for maintenance of highway and logging roads. We feel this has been established as a source of rock to be used in roadway surfacing.

2. What temporary permit is required since surface mining, crushing, and stockpiling has been previously permitted? This would be for the purpose of further mixing the crushed rock with a cement to be applied to the roadway. Temporary structures would be required.

3. Will there be any permanent structures erected? No, the crushing plant and the mixing plants are portable and will be removed to other projects at the completion of the crushing and paving respectively.

4. What machinery and equipment will be used in the mining of the material? Dozers and loaders will be used to strip, rip, and charge the crushing plant. The crushing plant is all electric and consists of primary, secondary, and rolls crusher. Loaders will be used to stockpile the materials. No blasting is contemplated. Diesel power will be used to generate electricty.

5. What mixing plants will be used? A self-contained drum-dryer mixing plant occasionally augmented with a pug-mill. The average production rate will be approximately 300 tons per hour. The mixing drum-dryer has a sophisticated dust control system composed of twin fans, venturi scrubber, exhaust stack, and a water reclaimer. The latter eliminates the need for settling ponds and allows the

re-use of the scrubbing water. Air, water, and noise pollutants are required to meet DEQ standards and are monitored by that agency.

6. Do these plants have DEQ operating permits? Yes, all of the crushing and mixing plants have current permits and are on file with the DEQ Headquarters in Portland. Permit Nos. 37-0065 and 37-0173 cover the subject equipment.

7. Will growing and harvesting timber be affected? No, this property is owned by the State of Oregon and under jurisdiction of the State Foresty Department. This operation will not adversly affect the ingress and egress for harvesting adjacent areas.

8. What sanitation facilities will you have for your employees? Portable chemical toilets.

9. What vehicle traffic will result from your operation? No traffic will be generated from the mining. The mixing of the paving material will result in approximately 15 trucks per hour needed for the hauling to the state project.

10. What hours and time span will be estimated for the crusher and mixing operations? Crushing: 24 hours a day, 5 days a week for a total of 4 weeks. Mixing: 7 a.m. to 7 p.m., for a total of 6 weeks.

11. Have you taken steps to obtain the appropriate permits from the State Department of Geology and Mineral Industries? Yes, representatives of DOGMI are aware of our proposed plan. Required paperwork is being finalized prior to their issuance of a permit.

12. Is there a public need and benefit satisfied by this operation? Yes, this will provide the resurfacing and rehabilitation of highway US 30 between Clatskanie and Knappa Jct. (M.P. 83). No facilities are located close enough to economically serve this particular project.

13. How will this affect the surrounding persons, properties, or general public? The immediate area consists of logged off areas. To the

the west, approximately 1000 feet, a culdesac consisting of several residences exist. Rising ground and heavily wooded with alder trees and undergrowth separates our proposed area with the houses. The heavily wooded alders and undergrowth will further tend to eliminate any air or noise pollution. Traffic will travel directly from the quarry to US 30. Visual, sound, and environmental pollution will be minimized or non-existent in the general area surrounding the site.

14. Will the proposed request cause erosion or drainage problems? No, we will be required and subsequently monitored by DOGMI and the Oregon State Highway Division to see that we conduct our operations to prevent such problems.

In addition to the above information and the accompanying planned development overlay, we certify the reproduced aerial photo represents the current property under consideration.

J. C. COMPTON COMPANY

Emerson B. Page

January 25, 1980

INSTRUCTIONS FOR DESIGNING PLOT PLAN

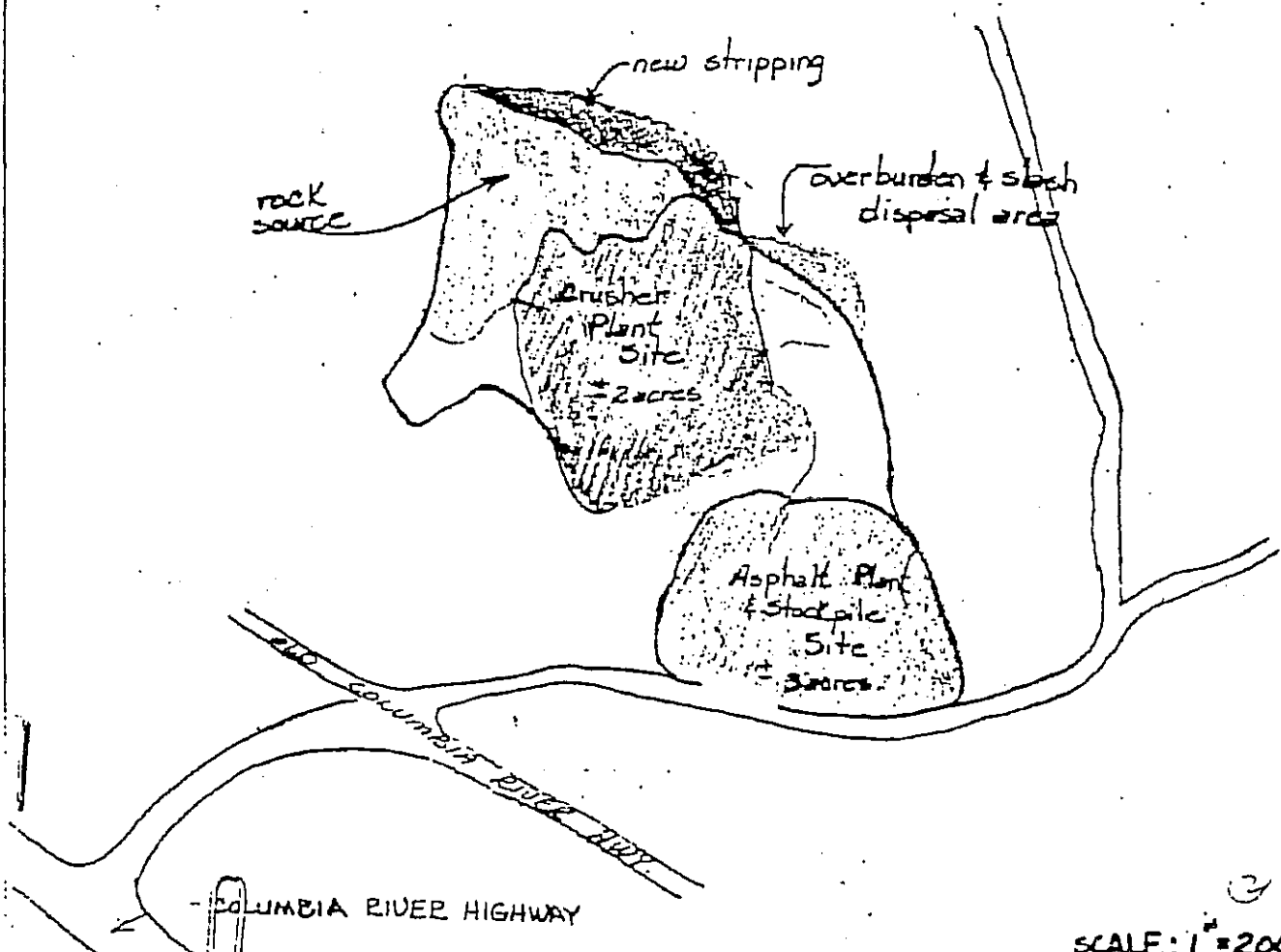
1. Show access road and/or street the property abuts for 25 feet or more.
2. Show property lines.
3. Show location of existing improvements.
4. Show location of proposed use.
5. Use arrows to indicate direction of slope, if any.
6. Use arrow to show north.

Center of NW. qrt. mrd. 325-473'

N

PROPOSED DEVELOPMENT PLAN.

N



SCALE: 1" = 200'

TAYLORVILLE QUARRY

04-0053

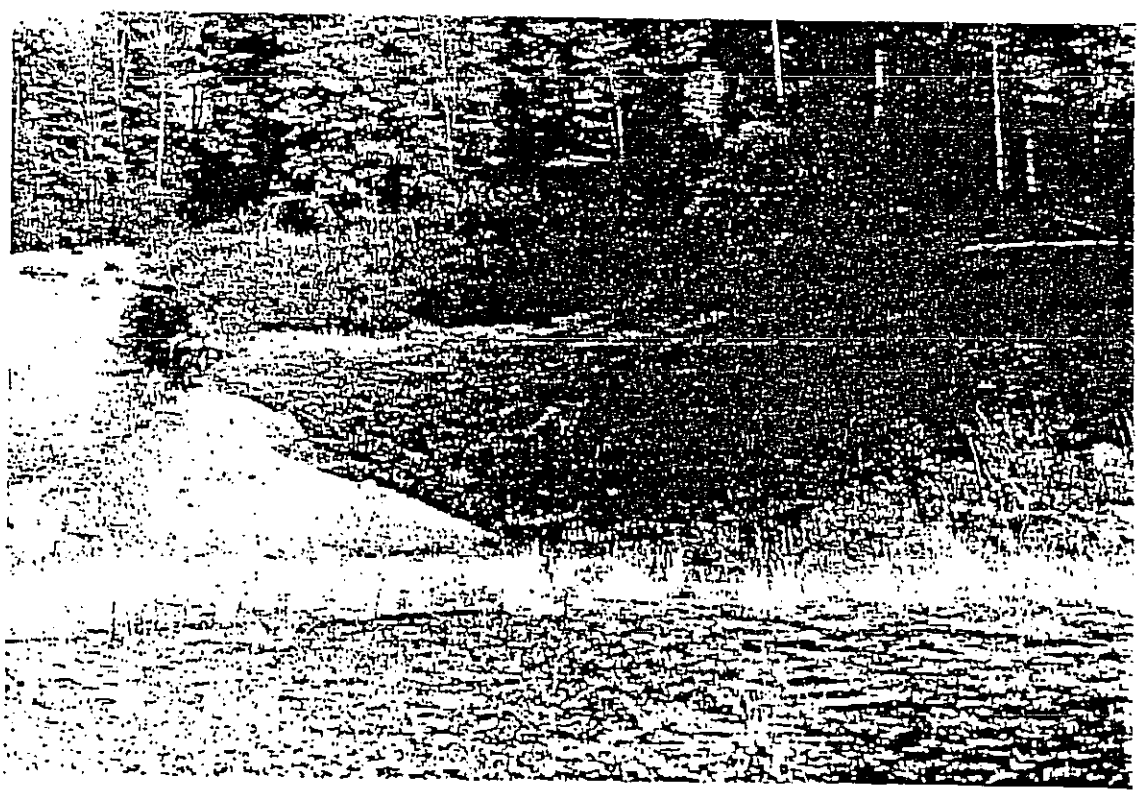
(LOWER LEVEL)

ELDERBERRY QUARRY (Oregon State Highway)

OWNER:	Oregon State Highway Division 9002 S.E. McLoughlin Boulevard Milwaukie, OR 97222
LOCATION:	Highway 26 (Sunset Highway) 3.5 miles east of Elsie
MAP NO.:	TWP 4N, RGE 7W, Sec. 3
TAX LOT NO.:	500
DOGAMI:	04.0055
ACREAGE:	Five acres
PLANNING DEPT. INFORMATION:	Attached
CURRENT USE:	Inactive
LENGTH OF USE:	
ADJACENT USE:	Timber harvesting . . . surrounded by huge areas of clear-cut
ACREAGE MINED:	1
CURRENT DEVELOPMENT ON SITE:	Logging and various mineral test holes
EXISTING PUBLIC FACILITIES:	None
FOREST USE IMPRACTICABILITY DATA:	Timber on site, clear-cut surroundings
EXISTING LEVELS OF DEVELOPMENT INFORMATION:	
AREA PARCEL PATTERN:	QM F-80 RA.1 RA.5

OBSERVATIONS: Elderberry Quarry is the least developed of the five quarries of interest. Located directly off Highway 26 (Sunset Highway), the quarry is accessed by a 500 yard gravel road that climbs rapidly in elevation. The road levels off at the top and forks. To the left are massive areas of clear-cut. To the right is the quarry parcel. The parcel is large (5 acres) and forested. Test holes (5) surround the site, but appear to be inactive. There is little evidence of mining with the exception of these test holes.

The parcel surrounding the quarry is owned by the Wright Blodgett Timber Company and has been extensively logged. Private owners hold the parcels west of the quarry and there are several residences within one mile. The Elderberry Inn is less than half a mile from the access road on Highway 26. The Town of Elsie is 3.5 miles west and a small subdivision exists near the Elsie-Jewell cutoff 1.5 miles west.



04-0055

QM Zone

OCT 1983
RECEIVED
Dept. of Planning & Development

STATE DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

SURFACE MINING OPERATING PERMIT

Renewal

Oregon State Highway Division
9002 S. E. McLoughlin Blvd.
Milwaukie, OR 97222

Location
Elderberry Quarry
3 4N 7W
Sec. Twp. Rge.
Clatsop
County

SEPTEMBER 1984
Renewal Month

Fee Paid

#04-0055
I.D. #

THIS OPERATING PERMIT DOES NOT RELIEVE THE PERMITTEE FROM THE REQUIREMENTS OF CITY, COUNTY, OR OTHER GOVERNMENT AGENCY AUTHORITY.

Pursuant to ORS 517.830(4), this permit shall be in effect, unless revoked or suspended for cause, from the date of issuance and shall remain in effect so long thereafter as the Operator pays the annual fee to renew the permit, complies with the provisions of ORS 517.750 to 517.900 as amended and subsection (4) 517.990, the Rules and Regulations as promulgated to administer the Oregon Mined Land Reclamation Act, complies with the reclamation plan submitted and maintains a performance bond as required by the Act.

Issued this 4th day of October 1983

STATE DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES

By Paul F. Lawson, Supervisor Mined Land Reclamation
Paul F. Lawson

SMLR-5-C(rev.7/31/80)

C

RECORDED
AUG 12 1993
BCC DOC #
REEL #

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

ORDINANCE NO 93-17

(AN ORDINANCE AMENDING THE MINERAL
(AND AGGREGATE ELEMENT OF THE COMP
(PLAN AND THE COMP PLAN/ZONING MAP
(BACKGROUND REPORTS AS ADOPTED BY
(THE BOARD OF COMMISSIONERS,
(ADOPTING CERTAIN FINDINGS AND
(RESCINDING INCONSISTENT PROVISIONS

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the 1993 Quarry & Mining Text and Map Amendments.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Comprehensive Plan and Comprehensive Plan/Zoning Map. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the said Clatsop county Comprehensive Plan and Comprehensive Plan/Zoning Map.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Planning

Commission held a public hearing on June 3, 1993. The Board received and considered the Planning Commission's recommendations on this request and held a public hearing on this ordinance pursuant to law on July 28, 1993.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supercede, control and repeal any inconsistent provision of the Clatsop County Comprehensive Plan, as amended, and the Clatsop County Comprhensive Plan/Zoning Map, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effective 30 days following adoption of this Ordinance.

SECTION 7. ADOPTION CLAUSE.

The Board of Commissioners hereby adopts the 1993 Quarry & Mining Text and Map Amendments, set forth in Exhibit "A" attached hereto and by reference herein made a part of this ordinance in its entirety.

ADOPTED this 11th day of August, 1993.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By _____
Eric Olsen, Chair

By _____
Recording Secretary

Effective Date: 9/10/93

APPROVED AS TO FORM: _____
Clatsop County Counsel

EXHIBIT "A"

AMEND GOAL 5 QUARRY & MINING ELEMENT OF THE CLATSOP COUNTY COMPREHENSIVE PLAN. ADD THE FOLLOWING:

CLASSIFICATION OF COUNTY MINERAL & AGGREGATE SITES

Primary Sites Requiring QMO Protection

1)	Clatsop County - Clifton	S17,T8N,R6W	rock
2)	Clatsop County - Big Creek	SW,S29,T8N,R7W	gravel
3)	Howard Johnson - US 101	S4,T5N,R10W	rock
4)	Bayview Transit Mix - US 101	SW4,NW9,T5N,R10W	basalt

Primary Sites Requiring Conditional Use Approval

1)	George Ordway	S14,T5N,R10W	basalt
2)	Teeven Bros. Logging	NW,S27,T8N,R6W	rock
3)	Daren Berg, Humbug Rock	S22,T5N,R8	rock
4)	M. Nygaard Logging	NE,S31,T7N,R9W	rock
5)	A. Riekkola	S18,T7N,R8W	basalt
6)	Tagg	S3,T7N,R10W	sand
7)	Horecny	S23,T5N,R9W	rock

Other Sites

1)	Clatsop County (Anderson Rd-Brownsmead)	SW,S2,T8N,R7W	clay
2)	Howard Johnson	NW,S4,T5N,R10W	rock
3)	Ore State Forestry Dept	NW,S14,23,T4N,R9W	rock
4)	Ore State Hwy Division	S16,17,T5N,R9W	basalt
5)	Ore State Hwy Division	NW,S25,T5N,R8W	basalt
6)	McClean Logging	S28,T7N,R8W	basalt

EXHIBIT A

ADD The following site descriptions, maps and ESEE analyses to the Goal 5 Element Quarry and Mining Section of the Clatsop County Comprehensive Plan.

SITE 2.

BAYVIEW TRANSIT MIX ROCK QUARRY

BACKGROUND:

The Bayview Transit Mix Rock Quarry is located on approximately 30 acres to the west of the Highway 26/Highway 101 Cannon Beach in Township 5 North, Range 10 West, Willamette Meridian (portions of Tax Lots 700 and 100 and portion of Tax Lot 100 Section 4), Clatsop County, Oregon. The site includes an extraction area of about 20 acres and an adjoining processing and stockpile area of about 10 acres. The quarry was used as an intermittent source of commercial rock for about 15 to 20 year prior to 1987. In 1987, Clatsop County amended its Comprehensive Plan and zoning map and took an exception to Goal 4 to place the site in the County's Quarry and Mining zoning designation. Since 1987, the site has been continually used as a commercial quarrying site.

PURPOSE:

The purpose of this process is to place the Bayview Transit Mix Rock Quarry in the recently established Clatsop County Quarry and Mining Overlay Zoning district. This overlay will provide land use protection for this valuable commercial rock resource.

CLATSOP COUNTY COMPREHENSIVE PLAN:

The Land Conservation and Development Commission acknowledged the County's Comprehensive Plan on May 31, 1984. However this plan did not contain provisions to identify and protect valuable Goal 5 aggregate resources. This analysis is part of the County's current efforts to inventory and protect its known aggregate resources. The County finds that this site would not be affected by conflicting uses, including nearby residences or forest lands. This designation is consistent with a determination to preserve the resource in accordance with the Goal 5 administrative rule (OAR 660-16-005(1). In the event that the County receives a request to rezone properties in the vicinity to a zone that would permit conflicting uses, this overlay designation would protect the site from encroachment. No such rezoning or development has been proposed at this time.

DESCRIPTION OF PROPOSED MINING ACTIVITIES:

The site is being actively mined under the provisions of State Department of Geology and Mineral Industries permit at this time. The quarry is one of the major commercial extraction and processing sites in Clatsop County.

COMPLIANCE WITH STATEWIDE PLANNING GOAL 5:

The Statewide Planning Goal Number 5, requires in part that "where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determine and programs developed to achieve the goal". The goal guideline suggests that "in conjunction with the inventory of mineral and aggregate resources, sites for removal and processing of such resources should be identified and protected".

The Goal 5 rule specifies the requirements and procedures local government must follow to comply with Goal 5. Goal compliance involves six basic steps:

1. Identify a resource's location, quality and quantity;
2. Determine the resource's significance;
3. Identify conflicting uses;
4. Analyze the economic, social, environmental and energy consequences of conflicts;
5. Determine the level of protection for the resource; and,
6. Implement a program to protect significant resources.

The purpose of this process is to complete the Goal 5 analysis and protect the Bayview Transit Mix quarry and processing site for future continued use.

REQUIREMENTS OF THE GOAL 5 ADMINISTRATIVE RULE:

Location

The Bayview Transit Mix Rock Quarry is located on approximately 30 acres to the west of the Highway 26/Highway 101 Cannon Beach in Township 5 North, Range 10 West, Willamette Meridian (portions of Tax Lots 700 and 100 and portion of Tax Lot 100 Section 4), Clatsop County, Oregon. The site includes an extraction area of about 20 acres and an adjoining processing and stockpile area of about 10 acres. The quarry site that is leased on a long term renewable basis by Bayview Transit Mix is part of a larger Hanson Resources ownership .

The location of this quarry near the Highway 26/Highway 101 intersection just to the south of the City of Seaside is ideal for supplying rock to the entire northwest corner of Clatsop County.

Quality

Abrasion, sodium sulfate soundness and air degradation tests have been completed on this source and are on file with Clatsop County in the Quarry and Mining Amendment land use files. This rock source meets all State and Federal quality test requirements. State specification crushed rock has been consistently produced from the site 1987 when the commercial operation was permanently established.

Quantity

The quantity of the rock source is estimated to be 2.0 to 2.5 million cubic yards. Documentation for this estimate can be found in the Clatsop County Quarry and Mining Amendment land use files.

Conclusion

This large rock reserve at a strategic transportation location makes the Bayview Transit Mix quarry a unique resource that is of significant economic value to Clatsop County.

The Bayview Transit Mix quarry is a significant resource by virtue of its location, quality, quantity and established development that should be protected on the inventory of significant Goal 5 resources in the Clatsop County Comprehensive Plan.

Conflicting Uses

Identifying conflicting uses to a significant resource site requires two principle steps: 1) designating and justifying an impact area surrounding the resource, and 2) determining conflicting uses allowed by the zoning ordinance, and identifying conflicts with other significant Goal 5 resources.

Impact Area

The Goal 5 rule (OAR 660-16-0002) requires identification of an impact area itself. The impact area is an area in which identified conflicting uses may adversely may adversely affect the resource. Although impact area is not defined in either the goals or in the Goal 5 rule, the impact area for a mineral and aggregate resource site must be the area which includes uses which could adversely affect the resource, but also the area including those uses which could be affected by the presence of a significant resource. The attached impact area map shows the boundaries of the Bayview Transit Mix quarry operations and an impact area that extends 1000 feet beyond the perimeter of this quarry.

Noise, dust, odor and blasting effects typically have the potential to adversely effect surrounding properties in the immediate proximity to a quarrying operation. In this situation, all properties within the 1000 foot impact area are owned by Hanson Resources, zoned for commercial forest use (F-80), and actively managed as forest lands. There are no existing residential dwellings within the 1000 foot impact area and there is a very low likelihood that any such dwellings will be proposed or constructed in the impact area within the foreseeable future. There are a number of uses allowed in the F-80 zone and it is difficult to forecast whether any of these would be proposed within the impact area.

The quarry operation utilizes an existing access road and paved road approach onto U.S. Highway 101 that is in excellent condition

and which provides safe highway access for existing and proposed traffic volumes. The Bayview Transit Mix quarry operation is not visible from U.S. Highway 101.

Potential Conflicting Uses

All properties within the 1000 foot impact area are zoned F-80. The F-80 zone is intended "to provide for large-scale commercial forest management where parcel size and ownership patterns are adequate to support such activities". In addition to forestry uses, this zone also permits forest related residences and offices, grazing, aquaculture, watershed management, home occupation and other uses.

Since all lands within the 1000 foot impact area are owned by Hanson Resources who also owns the subject quarry site, there is little or no potential for the future establishment of conflicting uses. As the land owner, Hanson Resources has complete control over uses within the impact area. These surrounding lands have been managed for commercial timber production for a number of years and it is safe to assume that they will continue to be use for this purpose.

Conclusion

The Clatsop County Bayview Transit Mix Quarry and Mining Amendment land use files contain an approval findings analysis of other Goal 5 resources that could potentially be impacted by land uses at the Bayview Transit Mix quarry site. A copy of this analysis is attached. Potential impacts upon forest resources, fish and wildlife, and wetlands are detailed. These findings reach the conclusions that the Bayview Transit Mix quarry site contains a valuable aggregate resource that merits Goal 5 protection and that the other Goal 5 resources have been examined and protected by a program of avoidance and use controls.

ESEE Analysis

The Goal 5 rule (OAR 660-16-005(2)) requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy (ESEE) consequences of the conflicts must be determined. "Both the impacts on the resource site and on the 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 above referenced Bayview Transit Mix Quarry and Mining Amendment findings fully identify potential conflicting uses and examine associated ESEE conflicts.

REQUIREMENTS OF OTHER APPLICABLE STATEWIDE PLANNING GOALS

Goal 4 - Forest Lands

A Goal 4 exception has previously been approved for this quarry site as part to the 1987 Clatsop County Bayview Transit Mix Quarry and Mining Amendment package. Aggregate extraction and processing operations on this site are not expected to conflict with the protection of adjoining forest lands or forest practices, or other activities necessary and appropriate for management of soil, air, water and fish resources, the provision for recreational opportunities, and agricultural uses. Mining and processing of aggregate and mineral resources are permissible uses of forest lands as specified by Goal 4 administrative rule. No aspects of the quarry's development would force a significant change in, or significantly increase the cost of accepted forest or farming practices on surrounding lands dedicated for resource use. Similarly, no aspects of the proposed operations are expected to significantly increase the fire hazard, the cost of fire suppression, or risks to fire suppression personnel.

Goal 6 - Air, Water and Land Resource Quality

The environmental effects of the quarry operation have been discussed above. The existing quarry has an active DOGAMI mining permit. The existing crushing plant has appropriate DEQ permits. The existing storm water collection and treatment system has appropriate DEQ permits.

The quarry is currently operating under the controls of required environmental permits without any identified problems.

Goal 12 - Transportation

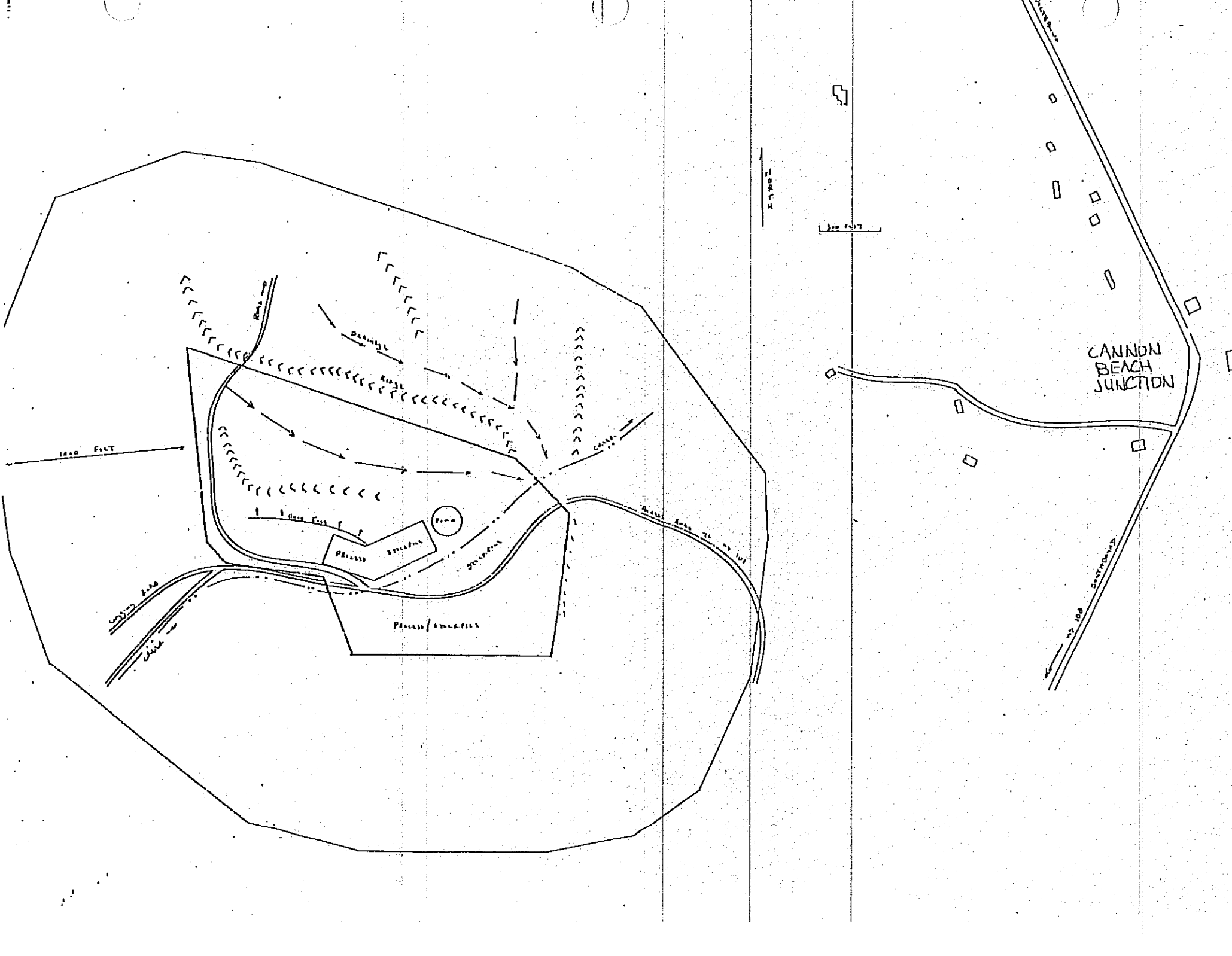
Statewide Planning Goal 12 requires local governments "to provide and encourage a safe, convenient and economic transportation system". The Bayview Transit Mix quarry is a very important source of aggregate materials for a wide range of City, County, State and Federal street and highway construction and repair projects.

Goal 13 - Energy Conservation

The Bayview Transit Mix quarry by virtue of its strategic location promotes energy conservation. It is far most efficient to utilize rock from this centrally located source than to import rock form outlying locations within Clatsop County or from areas outside of our County.

Seventh: Extraction shall be in accordance with the staged extraction plan as submitted by applicant as prepared by David Evans & Associates, Inc. on August 26, 1987. (This condition will result in the mouth of the quarry being oriented away from residences and will result in a lip of rock being maintained between the resources and the quarry. This will insure sound levels are within DEQ standards.)

We conclude that these conditions, together with the conditions imposed and adopted by us in the prior proceeding and together with the Bayview excavation plan and sedimentation control plan, constitute a program designed to achieve Goal 5


CANNON
BEACH
JUNCTION

SITE 5

CLATSOP COUNTY BIG CREEK ROCK PIT

GOAL-5 ANALYSIS

BACKGROUND:

The Big Creek rock pit is located in the north central area of Clatsop County in the Knappa-Svensen area, on the southwest side of Big Creek Hatchery Road, approximately two miles south of US Highway 30. The purpose of the pit is to provide base rock for County roads and dikes in this area of the county. The property which the county owns consists of approximately six acres of land leased from Agency Creek Management and Boise Cascade. The County has operated this pit since the 1950s as a non-commercial quarry. The pit has provided rock for most of the County roads in the northern area of the County, primarily the Knappa-Svensen, Brownsmead, and Westport areas. Approximately 3,000 cubic yards are extracted from the quarry annually, and is primarily used for fill and base rock.

PURPOSE:

The County maintains a number of quarries in order to supply rock for the construction and maintenance of its road system. While virtually all of the 40,000 cubic yards of gravel used by the County is supplied by commercial quarries, the material in the County-owned quarries is used primarily for base rock, fill and other purposes. The County does not maintain its own gravel processing facilities or asphalt plant for surfacing materials. Rather, it relies on private contractors, who are located primarily in the Seaside area. From time to time the County may contract with an operator who will crush the material for future use by the County or its contractors. County-owned aggregate sites provide a source of material which lowers the cost of transportation and saves tax revenues.

CLATSOP COUNTY COMPREHENSIVE PLAN:

The Land Conservation and Development Commission acknowledged the County's Comprehensive Plan on May 31, 1984. However, no mention of the Big Creek rock pit was included in the Goal 5 portion of the Plan. This analysis is intended to be included in the Comprehensive Plan, and to establish the Big Creek quarry as a priority site. The County finds that the site would not be affected by conflicting uses, including nearby residences or forest lands. This designation is consistent with a determination to preserve the resource in accordance with the Goal 5 administrative rule (OAR 660-16-005(1). In the event that the County receives a request to rezone properties in the vicinity to a zone that would permit conflicting uses, this overlay designation would protect the site from encroachment. No such rezoning or development is

proposed as this time.

DESCRIPTION OF PROPOSED MINING ACTIVITIES

Clatsop County Road Department will develop the site over an extended period of time. No commercial activities are proposed. The use of the site will be intermittent, and will be dependent on the County's demand for rock. It is estimated that over 400,000 cubic yards of rock are readily available on the site which could be extracted over a twenty to thirty year period. Full use of the site for extraction could take several decades. The use of the site for stockpiling materials from other locations, such as gravel and sand, is also planned.

The extraction method proposed for the site is benching. Because of the nature of the rock - Columbia River Basalt - controlled blasting will be performed on occasion. The County will require that all trees and other vegetation remain undisturbed in locations not necessary for mining operations, and that berms be constructed to screen stockpiles and mining from the roadway. Because of the presence of the State of Oregon Big Creek Salmon Hatchery, particular attention will be paid to minimizing negative impacts on water quality in the area. Recent construction of residential uses in the Big Creek area places pressure on the County to take greater care to minimize the impacts of quarrying on the tranquillity of the area. The County will ensure that the site is reclaimed in accordance with state regulations administered by DOGAMI.

COMPLIANCE WITH STATEWIDE PLANNING GOAL 5

The Statewide Planning Goal Number 5, requires in part that "where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal."

The goal guideline suggests that "in conjunction with the inventory of mineral and aggregate resources, sites for removal and processing of such resources should be identified and protected."

The Goal 5 rule specifies the requirements and procedures local government must follow to comply with Goal 5. Goal compliance involves six basic steps:

1. Identify a resource's location, quality and quantity;
2. Determine the resource's significance;
3. Identify conflicting uses;
4. Analyze the economic, social, environmental and energy consequences of conflicts;
5. Determine the level of protection for the resource;
6. Implement a program to protect significant resources.

The purpose of this process (and this report) is to complete the Goal 5 process and protect the Big Creek site for future use by the Clatsop County Road Department. It is recognized that future development in the vicinity of the Big Creek pit may be in conflict with future development in the vicinity of the site.

REQUIREMENT OF THE GOAL 5 ADMINISTRATIVE RULE

Location

As described above, the Big Creek quarry property consists of 6.0 acres located on Big Creek Mainline, off of approximately two miles south of US Highway 30 at T8N R7W, Section 29, tax lot 700. The entire property parcel is 128 acres and is owned by Boise Cascade. The impact area includes tax lots 2903, 2904, 3000, 3001, 3002, 3300, 105, 109, 406, 409, 500, and 600. Several of these parcels are of the size suitable for rural residences, although no dwellings are located on them at the present time. Property to the south, west and east are large parcels of timber lands owned by forest management companies. The zoning designation for this area is Forest 80. (F-80).
Protection of the site will include the entire 20 acre Clatsop County parcel, although it is unlikely that the entire site will be mined.

Quality

No abrasion, sodium sulfate soundness or air degradation tests have been performed on the material in this pit. However, it is the considered opinion of the County public works director and engineer that the basalt rock is of high quality. It has been used to good effect on many County roads in the northeast area of the County in the last thirty or forty years. If the material were to be used for asphalt or concrete, tests would be performed specifically for that purpose.

Quantity

The estimated 300,000 cubic yards in this pit qualifies it as a medium size quarry in Clatsop County. This estimate is based on visual examination of the site and aerial photos by County staff, but no geologic investigation has been carried out.

Conclusion

The large amount of basalt in this location makes the Big Creek pit

a unique resource. It is a significant pit in the northern portion of the County, and is centrally located with respect to County roads. Its lack of surrounding development means minimal conflicts in the future.

The quarry is a significant resource by virtue of its location, quality and quantity, and should be retained on the inventory of significant Goal 5 resources in the Clatsop County Comprehensive Plan.

Conflicting Uses

Identifying conflicting uses to a significant resource site requires two principal steps: 1) designating and justifying an impact area surrounding the resource, and 2) determining conflicting uses allowed by the zoning ordinance, and identifying conflicts with other significant Goal 5 resources.

Impact Area

The Goal 5 rule (OAR 660-16-0002) requires identification of an impact area surrounding the resource site if different from the resource site itself. The impact area is the area in which identified conflicting uses may adversely affect the resource. Although impact area is not defined in either the goals or in the Goal 5 rule, the impact area for a mineral and aggregate resource site must be the area which includes uses which could adversely affect the resource, but also the area including those uses which could be affected by the presence of a significant resource.

Noise, dust odor and blasting effects may adversely affect surrounding land uses. Conversely, the complaints expressed by surrounding property owners about these effects, as well as complaints about traffic and the effects to visual quality influence whether, or how, a resource may be mined. At the present time there is no conflicting use in the vicinity of the quarry. However, the purpose of the designation of the overlay zone is to anticipate future rezonings or other incompatible use of the property. There are twenty-one uses permitted in the F-80 zone, including forest related dwellings, and it is impossible to determine with certainty whether a parcel will be used for a particular use.

The Big Creek quarry is not visible from the adjacent County road or the residential area in the Big Creek valley. Any future expansion will ensure that the existing buffering and screening from the road and residences will be enhanced. Traffic is not a problem because of the occasional use of the quarry. Big Creek Road (Hillcrest Loop) is a collector road, and services the State of Oregon Big Creek hatchery. The hatchery has seven residences on the site for State hatchery employees. There have been no known conflicts between the quarry and the hatchery in the recent past.

More frequent use of the site, even on a daily basis, is not anticipated to impact any other users of the road.

Potential Conflicting Uses

Most of the property surrounding the Big Creek quarry is zoned F-30, the County's prime forest production zone. It is intended "to provide for large-scale commercial forest management where parcel size and ownership patterns are adequate to support such activities." In addition to forestry uses, this zone also permits forest related residences and offices, grazing, aquaculture, watershed management, and home occupations.

Conclusion

Within the impact area surrounding the Big Creek Quarry, few conflicting uses are found, and few land uses which may have conflicts with a rock quarry are anticipated. Nonetheless it is in the interest of Clatsop County and its citizens to protect this resource for the future.

ESEE Analysis

The Goal 5 rule (OAR 660-16-005(2)) requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy (ESEE) consequences of the conflicts must be determined. "Both the impacts on the resource site and on the 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."

Economic

The economic consequences of allowing conflicting uses to be established near Big Creek quarry are significant. While large scale urban development is not likely, even one or two dwellings could affect the operation of the quarry through neighbor complaints, particularly when the quarry is owned by a local government. The economic consequences of allowing the conflicting uses in monetary terms is difficult to predict. On the assumption that there are 250,000 usable cubic yards of material in the quarry, and the average price of pit run rock is $5.00 per yard, the current value of the quarry is $1.25 million at the quarry site. Transportation is a significant factor in the cost of aggregate materials. The Big Creek quarry is strategically located for the northeastern portion of the County. Not having access to the Big Creek quarry would mean the county would have to haul rock from the Clifton quarry, or possibly the Fishhawk quarry. Additional costs include resolving conflicts after they have surfaced. Political entities such as the County are especially

vulnerable to conflicts. Delays during the construction season can create severe problems for project budgets.

Since the surrounding property is undeveloped at this time, the economic consequences for these parcels are speculative. Uses may be proposed for these parcels which can be compatible with the quarry operation.

Social

The consequences of allowing conflicting uses adjacent to quarry operations are not directly applicable to protection of the rock resource itself. However, the social consequences of development upon surrounding land uses may cause significant modification of quarry operations. Even one single family dwelling could bring pressure to bear on the County to restrict or terminate operations. If conflicting uses are allowed near the site, it is possible that the resource could not be developed because of the inability to meet environmental regulations designed to protect the livability of surrounding property. Requiring measures to protect conflicting land uses from the impacts typically generated by quarry operations could result in curtailed productivity and a reduction in livability for other County residents which rely on a high standard of roads and dikes. The effect on conflicting uses if the development is allowed includes the typical and unavoidable effects of quarry operations, including noise, dust and truck traffic. The site is not a permanent, year-round commercial quarry operation, and it is difficult to predict the effects totally. The County will work with DEQ and ODFW to develop the site in the most appropriate manner. The recently adopted Quarry and Mining Overlay Zone (QMO) contains standards to regulate the operation of the quarry, but they may not be sufficient to satisfy neighbors.

Environmental

No adverse environmental consequences are anticipated from fully allowing the conflicting use. However, allowing a sensitive use in the vicinity, such as a residence, may cause the County to curtail or abandon the operation. Environmental impacts such as dust, noise and vibration, as well as visual or aesthetic impacts, can have a real impact on the quality of life for residents in the area, or for schools. As described above, the County will work with DEQ and ODFW to control adverse impacts during operation, and will reclaim the site in accordance with DOGAMI requirements upon closure.

Energy

Since the distance traveled between an aggregate resource site and job site is the most critical part in assessing energy consumption, eliminating the Big Creek quarry from the choice of sites would

increase overall County energy usage. Material would have to be trucked in for use on County and State Highway projects from out of the County, barged in from up the Columbia River, or trucked from quarries such as Fishhawk, or the Highway 202 area. Energy impacts on conflicting uses would be negligible. Any potential conflicting use would likely be a rural residence. Not locating in this area could have positive energy impacts, particularly if the occupant located closer to employment.

REQUIREMENTS OF OTHER APPLICABLE STATEWIDE PLANNING GOALS

Goal 4 - Forest Lands

Goal 4 - Forest Lands

The quarry is located in the F-80 zone, which is intended to protect the forest resource. Aggregate operations on this site are not expected to conflict with the protection of forest land, forest practices, or other activities necessary and appropriate for management of soil, air, water, fish and wildlife resources, the provision for recreational opportunities, and agricultural uses. Use of the quarry is a transient or temporary land use which should not preclude forest activities on surrounding lands.

Mining and processing of aggregate and mineral resources are permissible uses of forest lands as specified by the Goal 4 administrative rule. No aspects of the quarry's development, as envisioned by the County, would force a significant change in, or significantly increase the cost of accepted forest or farming practices on surrounding lands dedicated for resource use. Similarly, no aspects of proposed operations are expected to significantly increase the fire hazard, the cost of fire suppression, or the risks to fire suppression personnel.

Goal 6 - Air, Water and Land Resources Quality

The environmental effects of quarry operation is discussed above. As mentioned, the County will comply with all DEQ, ODFW, and DOGAMI requirements during operation and during closure of the site. Any crushing equipment used on the site will require permits from DEQ; contractors are required to obtain and comply with all permits. The County has not yet been required to prepare a reclamation plan for DOGAMI because of the limited amount of activity on the site. However, a plan will be prepared when the threshold level of activity is reached.

Goal 12 - Transportation

Statewide planning goal 12 requires local governments "to provide

and encourage a safe, convenient and economic transportation system." The purpose of the Big Creek site is to provide a low cost source of rock for County, and possibly State, roads and highways. With the proximity of the site to the Knappa - Svensen areas, and to US Highway 30, the cost of the public road system can be reduced by the protection of this quarry.

Goal 13 - Energy Conservation

As described above, the location of the quarry will save energy by virtue of its strategic location, and the fact that rock would have to be imported from other places such as the Willamette Valley.

DETERMINATION AND PROGRAM TO ACHIEVE THE GOAL

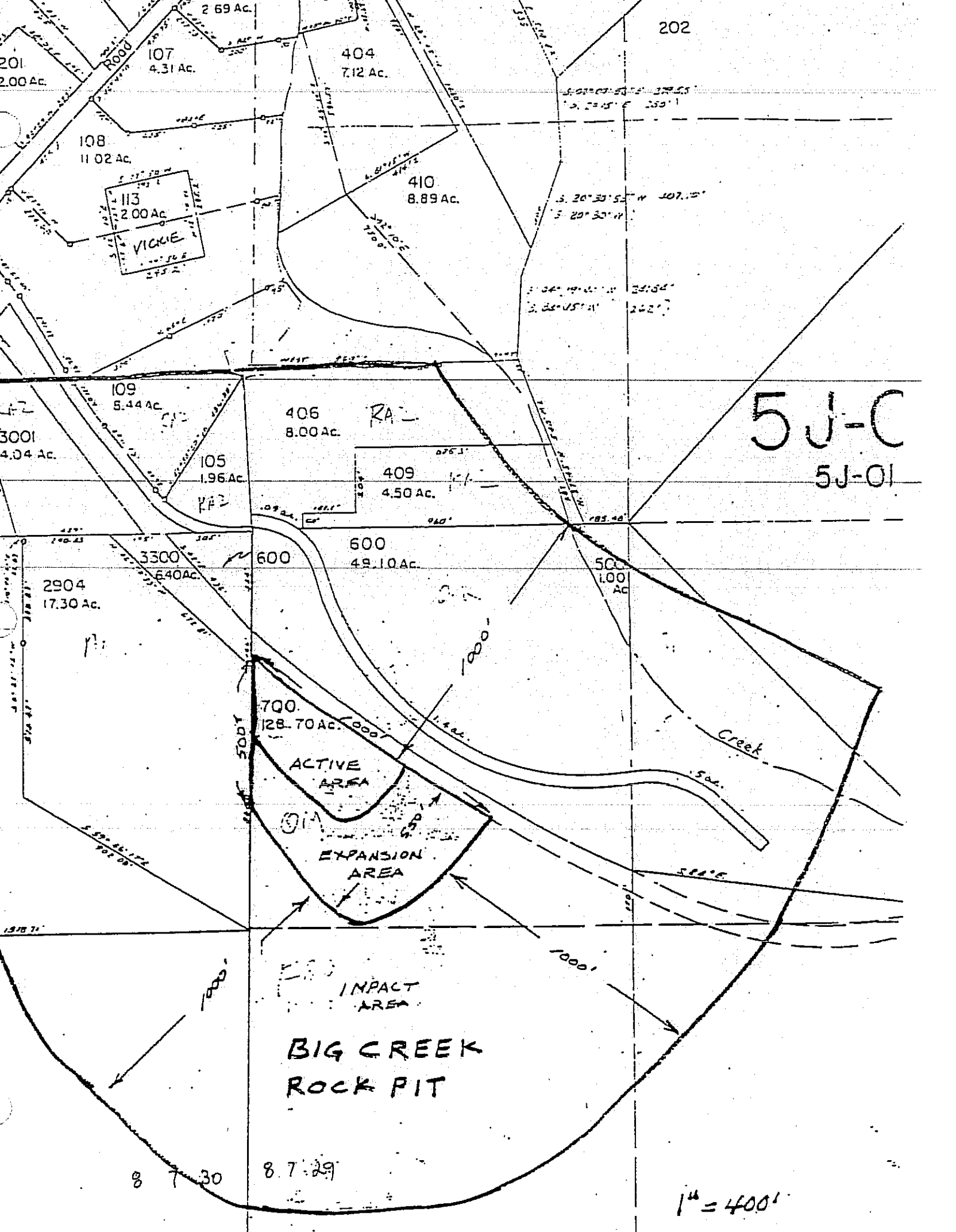
Summary of the ESEE Analysis

The ESEE analysis demonstrates that the Big Creek site is a significant aggregate resource for Clatsop County, and should be protected through the County planning process.

Program to Achieve the Goal

The Goal 5 rule (OAR 660-16-010) provides: "Based on the determination of the economic, social environmental and energy consequences, a jurisdiction must develop a program to achieve the Goal."

The County has adopted policies in the Comprehensive Plan and a zoning overlay zone to protect significant quarry sites. The purpose of this analysis is to demonstrate that the Big Creek quarry is significant. The attached map (Attachment 1) illustrates the active quarry site, the expansion area and a 1,000' impact area surrounding the expansion area. The underlying zone will continue to be F-80, and the QMO overlay will be on the expansion area until the site is no longer useful for mineral or aggregate extraction or processing. At the end of the site's usefulness the QMO zone will be removed and the site will be reclaimed.


202
107
4.31 Ac.
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409
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600
49.10 Ac.
3300
640 Ac.
2904
17.30 Ac.
700
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ACTIVE AREA
EXPANSION AREA
IMPACT AREA
Creek
BIG CREEK
ROCK PIT
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1" = 400'
5J-C
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MAP & FINDINGS

REQUEST FOR QUARRY AND MINING OVERLAY ZONE
JOHNSON ROCK QUARRY
MAY 24, 1993

INTRODUCTION:

Howard E. Johnson & Sons, Inc. owns 55.52 acres near Cannon Beach Junction in which they operate a quarry and mine for rock aggregate. The site has been in existence for 41 years. It is anticipated, at the current rate of mining, that it will provide rock and gravel for the next twenty years.

The properties are described as Tax Lots 101 and 200, Section 4, Township 5 North, Range 10 West, W.M. and a portion of tax lot 301, Section 3, Township 5 North, Range 10 West, W.M.

Lots 101 & 200, Section 4, T5N, R10 W, WM are zoned Quarry Mining. The portion of lot 301, Section 3, T5N, R10W, WM is zoned F-80, Forest 80, With a QMO, Quarry Mining Overlay Zone.

In November 1992, Clatsop County amended the Comprehensive Plan and Zoning Ordinance to provide for the Quarry Mining Overlay Zone and to establish the Mineral and Aggregate Impact Area with a minimum width of 1000 feet from the extraction area. A map of the impact area and extraction area is attached.

The following Economic, Social, Environmental and Energy Consequences Analysis (ESEE Analysis) is to address these new county regulations for the Johnson Rock Quarry.

FINDINGS:

Description of the Extraction Area:

The northerly one third of the property is primarily devoted to nonmining activities such as the office and storage. The area of the actual mining is in the southerly two-thirds of the property and the actual mining and crushing activities are moving toward the southerly and easterly boundary of the property.

Description of the Impact Area:

A one thousand foot radius includes most of the Cannon Beach Junction which is a Commercial environment. Commercial activities included are: A lumber company storage yard, a restaurant, a yard and garden store and an auto wrecking business. Directly to the south, the area includes a farm operation and directly west is a horse riding and boarding farm. The impact area also includes 11 single family residences. To the north is a mobile home park and campground with fifteen permanent residential units and the City of Seaside's water reservoir. To the east is forest land. The Necanicum River also traverses the site.

These Impact Areas are zoned RA 2, RA 5, AF 20 and GC.

ESEE Analysis:

Economic Consequences.

The proposal will have positive economic impacts for the county. The site has served as a primary source of aggregate resources for this portion of the county for over 40 years. Continuation of the site for aggregate use will provide continued employment and aid the economy of the county. Many development projects in our area require rock and aggregate materials.

There is currently insufficient land identified or available for extraction of aggregate material to meet the needs over a 20 year period. This site has the potential to continue to provide aggregate for the next 20 years.

Social Consequences.

The most significant potential social impacts of the site are visibility and noise from mining operations and truck traffic. There are 11 homes and 15 mobile homes at Riverside Mobile Home Park and Campground that are within 1000 feet of the site. The shift of the mining eastward will move the operation further away from these residences.

Visual impacts are discussed under environmental consequences.

Noise impacts are controlled by maintaining all equipment to insure proper functioning and minimized noise levels. Temporary noise barriers will be used whenever other noise mitigation measures and barriers are not adequate to maintain required noise levels for particular operations. There is little noise impact under present operations as the company receives few noise complaints from adjoining residents. Future noise impacts should stay approximately the same or lessen as the gravel crusher and auxiliary equipment are moved to the east.

Increases in truck traffic are not expected for the continuation of the operation. The only additional roads anticipated are to access the new area to the east. All truck traffic will continue to access Highway 101 at the present location.

Environmental Consequences.

Environmental consequences at the site include potential impacts on water quality, forest resources and wildlife.

Water drains from the quarry site through a series of siltation ponds and then ultimately discharges into the Necanicum River, a Class I stream. As the operation moves eastward, drainage flows will continue to be channeled into the present system of siltation ponds. This system is providing adequate settling opportunities for drainage and runoff and protects the aquatic resources of the Necanicum River. Regular consultation with Oregon Department of Fish and Wildlife officials insures that water quality of drainage and runoff discharges from the operation remains at or exceeds high water quality levels.

The City of Seaside water reservoir is located within the 1000 foot impact area. The City has two concerns, one is having dust and particulate carried airborne into the reservoir. The city has been acquiring additional property to buffer the reservoir site. Further, future plans for the reservoir call for treatment after the water leaves this particular reservoir. The second concern is that continued mining in the area of the material that also supports the reservoir could cause an impact in the ability of the reservoir to hold water. However, this has not been a problem in the past and all future mining operations are moving away from the reservoir site.

Expansion of mining operations will produce a less aesthetically pleasing appearance on the site. However, impacts will be screened. A fringe of alder trees and other existing riparian vegetation will be maintained along the Necanicum River and no mining or stockpiling or other aggregate-associated activities will be allowed to occur within these areas, thereby further protecting water quality as well as appearance. Areas not actively mined will be maintained in their present conditon. At such time as the operation nears completion, the mine will be reclaimed in accordance with a reclamation plan required and approved through the Department of Geology and Mineral Industries.

The current mining operation is located approximately 1000 feet east of U.S. Highway 101. A portion of that operation includes stockpiling of material on a small parcel of land between the operation and Highway 101. As the operation continues, it will move south and east so that the active face of the mine will be approximately 1500 feet from the highway. The actual mining will remain partially visible from the highway although better screened than the present mine.

The impact of the expanding mine and the purchase of property in the F-80 zone will cause some impact in terms of loss of the timber resource. It is not significant because only a small portion of the timber resources that once existed on this site still remain. The site contains no significant forest resources and has been substantially altered in its ability to be used for the production of trees or other forest products due to the steep slopes created by the mining operation.

Both the RA 5 and F 80 properties lie within the Peripheral Big Game Range classification of the county's comprehensive plan. The number of elk within a four square mile area surrounding the F 80 site is estimated to be a couple of hundred animals. ODFW does not consider the site to be important big game habitat, however, the operation avoids the use of fences to allow elk passage through the area.

Energy Consequences.

The Johnson property is only a short distance from the Cannon Beach Junction and is close to the market area. Its location near Highway 101 should reduce transportation and energy costs over site located further from the highway.

CONCLUSIONS:

Conflicting resources that exist as a result of the Quarry Mining operation at this site and for the impact area include:

1. Protection of the Nelcanicum River including water quality and fish resource.

Setbacks of a minimum or 150 feet from the river are required to protect this resource. Riparian vegetation is protected adjoining the river. Run off is controlled through the use of sediment ponds which are in place on the property. The Oregon Department of Fish and Wildlife monitors the water quality as it runs into the river and in the river adjoining the operation.

2. Wildlife (Elk) habitat.

No barriers such as fences are constructed that prevent wildlife migration. Elk are able to migrate and take advantage of the adjoining forest lands.

3. Protection of the Seaside Water Reservoir.

Although there has not been conflict between the mining operation and the water reservoir in the past, to prevent problems in the future, the city is acquiring additional buffer land to protect its own reservoir. Also, the city is under a DEQ order to either cover this reservoir or treat the water after it leaves the reservoir. The protect the reservoir is enhanced as mining operations are moved away from the reservoir to the opposite end of the property.

4. Visual impacts.

The site will become less visable as the operation moves to the east. Vegetated buffers are maintained to lessen the impact.

5. Noise impacts.

Extraction operations on the site are limited to the hours of 7:00 AM through 10:00 PM. Setbacks and noise barriers help to mitigate noise factors.

DETERMINATION AND PROGRAM TO ACHIEVE THE GOAL

Summary of ESEE Analysis

The ESEE analysis demonstrates that the Bayview Transit Mix quarry site is a significant aggregate resource for Clatsop County that merits protection through the County land use planning process.

Program to Achieve Goal

The Goal 5 rule (OAR 660-16-010) provides: "Based upon the determination of the economic, social, environmental and energy consequences, a jurisdiction must develop a program to achieve the goal".

The County has adopted policies in the Comprehensive Plan and a zoning overlay zone to protect significant quarry sites. The purpose of this analysis is to demonstrate that the Bayview Transit Mix quarry site is significant. The attached map illustrates the active quarry site, expansion area, processing and stockpile areas and a 1000 foot impact area surrounding the entire existing and proposed quarry activity area. The underlying zone will continue to be Quarry and Mining and the QMO overlay will be added until such time as the subject rock resource is depleted and the site is reclaimed. The quarry will continue to operate under the provisions of approval conditions that were adopted for the site in 1987 with the exception that the quarry will be allowed to operate on the same year-round basis as other commercial quarries in Clatsop County. Use restrictions for the months of December and January are no longer required because the quarry operator has demonstrated the ability to satisfactorily handle site storm water runoff during these months with an engineered storm water collection and settlement pond system.

ATTACHMENT #1

THE FINDINGS FROM ORD # 87-18 SHOULD BE INCORPORATED IN THEIR ENTIRETY. PAGE 26-35 AND ATTACHED TO REFLECT THE JOINT OF MATERIAL BEFORE THE PLANNING COMMISSION.

Issue No. 8.

What are the economic, social, environmental and energy consequences to Goal 5 resources of allowing processing of crushed rock at the proposed site?

We find the following facts on the record relevant to this issue:

Bayview has proposed rock extraction and stockpiling operations that are 30 acres in total. Twenty acres of this area will be devoted to rock extraction, and approximately 10 acres will be devoted to a stockpile operation. The proposed use is designed to produce quality rock for a 20-year period. The rock from the pit will be produced at a cost below the average price from presently existing sources, including Johnson and imported rock from outside the County. An existing quarry is present at the proposed extraction site. The quarry has been used on numerous occasions in the past, and approximately 100,000 cubic yards of aggregate material has been removed from the site. No merchantable timber exists on the extraction site or on approximately 3 acres of the stockpile site. Seven acres of the stockpile site contains trees that are approximately 30 feet in height. The stockpile area and the extraction area are distinct areas and are separated by forest uses which will be maintained. The two areas are completely surrounded by forest land. Areas described as "wetland" have been briefly discussed by the opponents during this remand proceeding. We find, as described in the site analysis of the area by Mr. Lampi, that vegetation which might be found in wetland is primarily contiguous with Square Creek. One pocket containing vegetation which might be found in wetlands is located near the extraction area. We find that no significant wetlands, as indicated on Department of the Interior maps or in Clatsop County Goal 5 or Goal 17 inventories, are located at the Bayview site. We find that the extent of area which contains vegetation which might be found in wetlands is delineated on the map as attached to Mr. Lampi's August 25, 1987 report, and we adopt this description of the area. We note that our own staff has reported that

Mr. Redfern's wetland contention is without merit. The Bayview Quarry site is located in major big game habitat. No barriers will be constructed during the operation of the quarry which would affect big game migration. Square Creek, a perennial stream, runs adjacent to the extraction area. It is considered fish habitat as it has a summer flow of .5 cubic foot per second. Up to nine salmon have been seen in the creek during winter months. Salmonoid fish fry have been released into Square Creek by STEP volunteers. Square Creek is adequate fish habitat but not excellent or ideal habitat. Bayview has provided a sediment control plan which is designed to handle a 100-year flood event. In January of 1986, the Oregon Department of Fish and Wildlife suggested conditions for a plan to reduce impacts on Square Creek. After reviewing the Bayview sediment control plan, an Oregon Department of Fish and Wildlife biologist described the plan as a good plan. Other facts concerning the Bayview site contained in Parts I through IV of these findings are incorporated herein by reference. Identified resources at the Bayview site are elk, anadromous fish, wetlands, trees and aggregate.

Economic Factors.

A. Trees. Loss of overburden due to prior operations at the existing aggregate quarry has prevented the growth of trees over a large portion of the extraction site. The remainder of the extraction area was recently clear-cut and now supports very young trees. There will be no economic loss of trees approaching market value on the extraction area. The stockpile area contains 7 acres of trees approaching marketable size. In the short term, aggregate operations on the site will cause the loss of these trees. Cumulative impact of tree loss should be minimized by development of this quarry as it will present a long-term quarry site and may alleviate the need for development of other aggregate sites in forest lands. In the short term, forest economic uses of the 30-acre area will be replaced by mining uses. In the long term, the reclamation plan for the quarry area will insure that the majority of the area is returned to forestry uses.

B. Elk and Fish. Hunting for elk and the provision of household meat produces some economic value from this habitat parcel. The applicant intends to construct no barriers on the site, and development of the quarry does not prevent elk from coexisting on this site. A small temporary loss of habitat does not necessarily entail a loss of elk. Elk migrate freely and can take advantage of the surrounding forest area. As with timber, development of this quarry may result in less cumulative loss of elk habitat, because the large capacity of

this quarry may limit the need for other smaller pits on forest land. Adjacent Square Creek provides habitat for up to nine salmon and provides an area for STEP volunteers to release salmonoid fry. Square Creek flows between the extraction and stockpile areas. It has an August flow of .5 cubic feet per second ("CFS"). It passes under the access road via a permanent culvert. These are not uses of the area which provide specific economic benefits. However, enhancement efforts on small streams may help restore salmon runs which would provide economic benefit. The applicant will need variable amounts of water, up to 3,000 gallons of water per day for dust control, and possibly up to 2,000 gallons per day for other uses. Possible sources are Square Creek, on-site sump collection and hauling water to the site. Because of low summer flows in Square Creek and the impact of any further activities on fish habitat, it may not be possible to take this water from Square Creek. A condition of approval is that the State Water Resources Department establish a minimum stream flow for Square Creek, and removal in excess thereof is prohibited. Applicant currently owns a 4,000-gallon water truck and intends to place a 10,000-gallon tank at the site. If the water must be hauled to the site, the cost is approximately 6.3 cents a cubic yard of rock product, a minimal effect on overall costs. Cut-off ditches, berms, erosion-control mechanisms and sediment-trapping ponds at both the extraction area and the stockpile site will be constructed or placed to handle a 100-year storm event. The ponds will be draped with filter fabric to insure sediment is trapped. The applicant's sediment control plans are designed to insure that any economic gains associated with fish can coexist at the same time if rock is extracted at this site.

C. Wetlands. Areas near the proposed extraction site that contain vegetation which might be found in wetlands are not inventoried in the County-wide Goal 5 Element. These areas also do not appear on the U.S. Department of the Interior National Wetland Inventory maps used for establishing significant wetlands in the Clatsop County Comprehensive Plan. No part of the Bayview site contains wetlands identified in the Comprehensive Plan. Wetlands can have an economic value as furbearing animal and wetland bird habitats, but there is no evidence of furbearing animals or wetland birds at this site. Wetlands can also have marginal economical benefits as flood buffers. However, the areas near the extraction area that contain vegetation which might be found in wetlands are too small to be needed as flood protection. As with elk and fish, the conditions imposed by Clatsop County provide the necessary steps to insure that wetland habitat will be protected to preserve any economic value that may be assigned to it.

D. Aggregate. Aggregate is a necessary commodity for the economy of Clatsop County. This particular site has enormous economic value because of the quality of rock and quantity of rock that are present. As recognized in the Clatsop County Comprehensive Plan, rock sources are scarce in Clatsop County and should be developed where feasible. Use of this site for aggregate extraction would provide high-quality rock for a number of years at a favorable price in Clatsop County markets. Development of this quarry will increase competition in the market area and may lessen the need for imported aggregate products in Clatsop County. Development of the site may also create four jobs. As noted in Parts I-V of these findings, other aggregate pits in the area have limited quantity and quality of material available for extraction. To not use this site would have significant negative economic impacts, including continued higher aggregate prices and uncertain future supplies.

Social Impacts.

A. Trees. An adequate timber base is important to preserve County jobs and to provide areas for recreation. Because the Bayview extraction area has recently been clear-cut and the area supports an existing aggregate pit, this area is not an ideal choice for timber production or forest recreation. Loss of seven acres of timber on the stockpile site will reduce the County timber base. Clatsop County has approximately 474,000 acres of timberland. The reduction in timber base caused by Bayview is a miniscule fraction of the amount of timber available in Clatsop County, and development of this site may prevent a larger cumulative loss of timber due to reduced need for smaller aggregate pits in other forest areas. In addition, nearly all the alternative sites would entail loss of productive forest while aggregate is being extracted. The reclamation plan for the Bayview site insures that the area will be returned to forest uses after extraction has stopped.

B. Elk and Fish. Although the land is private, public access has not been generally limited by the landowner. Access to the extraction and stockpile areas might be restricted if operations are ongoing. This could, in turn, limit elk hunting. However, as stated above, although use of this area for an extraction site may affect habitat, such use does not necessarily cause a decrease in the number of elk. Indiscriminate operation on this site could cause problems to fish habitat and the success of the STEP program. However, the sediment control plan proposed by the applicant mitigates any potential negative social effects in this regard.

C. Wetlands. Social and recreational values are sometimes assigned to wetlands if they are large enough to support animal populations. The small size of the area associated with the site on which vegetation might be found in wetlands would limit any such recreational value. Further, it is unlikely that the areas which might contain vegetation found in wetlands would provide large social value, as they were discovered only at the very end of this remand proceeding. In addition, the areas are small and directly adjacent to an existing forest gravel pit which limits their recreational value.

D. Aggregate. One of the principal reasons for developing this quarry is to eliminate reliance on the sole source of aggregate in the County which provides relatively high-priced materials to consumers. Unlike existing commercially operated sites considered in this proceeding, this proposed site is well away from people, being approximately 2,800 feet from the nearest residence. The extraction plan provided by Bayview indicates that use of this area for rock be handled in such a manner to minimize any effects, including dust and noise, on nearby residents. The evidence produced in this proceeding indicates that other rock sources in the County have limited life spans, and, eventually, other new sites must be developed for aggregate use. Finally, it is possible that four jobs would be created in the use of this pit for its aggregate resource.

Environmental Impacts.

A. Trees. As discussed in the economic portion of this analysis above, trees provide potential habitat for elk on the site. However, as the applicant will construct no barriers and reclaim the area for forestry uses, this habitat value will be reestablished through reclamation in the future. Aggregate uses on the site will create more dust and noise than tree production on the site, but the applicant has proposed measures to control both dust and noise. As discussed above, the site will remove approximately 30 acres from the timber base in the County. However, the site has been designed to allow trees to grow between the extraction area and the separate stockpiling area. Applicant's extraction plan is designed to minimize any adverse environmental effects on forest resources, and development of this site may limit the need for a larger number of smaller pits on forest lands. Forest uses might provide shade for Square Creek, but the proposed plan of operation at this site has preserved a 50-foot setback which will also provide shade for Square Creek. Use of the area for aggregate extraction will prevent periodic herbicide spraying which would accompany forest uses. As most of the site has been clear-cut, no major

habitat changes or loss of trees will accompany aggregate uses. There will be a premature harvest of trees on seven acres of the stockpile site, but no market-size trees will be lost at the extraction site.

B. Elk and Fish. The existing rock pit on the site is still used by elk. These habitat values will gradually change as the proposed aggregate use expands on the site. However, no barriers will be constructed to prevent elk from using the remainder of the site, and the area will be returned to forest uses and elk habitat after it has been reclaimed. Aggregate use on the site will entail some dust and noise emissions. However, the applicant will abide by the appropriate DEQ standards and will keep the road in a dust-free condition. In 20 years, the surrounding forest areas will support larger trees, and the small vegetation on the reclaimed portions of the proposed quarry will present habitat variety. Nine adult salmon have been counted in the lower one-half mile of Square Creek, and approximately 25,000 Coho and 10,000 Cutthroat Fry were released into Square Creek in 1987 as part of the STEP program. The creek provides an adequate, but not excellent, habitat. Low summer flows are a limiting factor, and maintaining minimum stream flows is important to sustain fish habitat. We have imposed a condition which will prohibit the applicant from removing water from Square Creek in excess of the proscribed minimum stream flow developed by the Water Resources Department. Indiscriminate operation at the site could cause sediment problems and damage to fish values in the nearby stream. However, the applicant has proposed a sediment containment program which will prevent any adverse impacts on the stream. This program has been described by the representative of the Oregon Fish and Wildlife Department as a good plan. Environmental values associated with fish will be able to coexist with the operation of the aggregate site.

C. Wetlands. The area which contains vegetation which might be found in wetlands primarily consists of a narrow strip along Square creek and one pocket near the extraction area. We find that the area containing vegetation which might be found in wetlands consists of riparian strips and small isolated pockets. These areas are shown on the map attached to Mr. Lampi's August 25, 1987 report, and we adopt that map as delineating the extent of any area at the Bayview site containing vegetation which might be found in wetlands. In the event that any of these areas would be determined to be wetlands, we have imposed a condition that will protect them by imposing a condition designated to maintain minimum setbacks from areas determined to be wetlands. Indiscriminate operation of the proposed use could cause damage to these areas. However,

However, the applicant has proposed acceptable setbacks from Square creek and has also proposed to keep all activities out of wetland areas.

D. Aggregate. As is recognized by the comprehensive plan, the geology of the Oregon coast limits good aggregate sites in Clatsop County. The Bayview site is one of the few sites with high quality and high quantity of rock. The site is already disturbed and has been used for a number of years as a rock pit for forest uses.

Energy Impacts.

A. Trees. Little energy use accompanies the growing of trees, with the exception of occasional spraying, pruning and harvesting activities. Rock extraction and processing would require more energy consumption.

B. Elk and Fish. Elk and fish resource uses entail no energy use. Extraction and processing of rock material requires more energy than these uses.

C. Wetlands. Wetlands uses require no energy use. Extraction processing of rock requires more energy than these uses.

D. Aggregate. Energy expenditure necessarily accompanies aggregate extraction, but aggregate provides a correspondingly greater economic return. The proposed site is close to the market area which reduces fuel consumption and provides a superior choice in terms of energy consumption from sites that are farther away from the market area.

Considering the economic, social, environmental and energy impacts and consequences of locating the proposed use at the Bayview site, we make the following findings. Aggregate is a scarce resource in Clatsop County. It requires an energy consumptive extraction process and necessarily creates some dust and noise. However, we find that the limited sites available for aggregate extraction in Clatsop County make the economic value of a good quality, long-term site, such as the Bayview site, extremely high. We find that 30 acres of timbered land, nearby fish and wildlife habitats, and areas which contain vegetation which might be found in wetlands will be affected by allowing the proposed aggregate use. However, we find the effects on the forest resources will be temporary, and the reclamation plan will return the area to forest uses in the long-term. Similarly, any effects on the elk habitat will be reduced, because no steps will be taken to prevent movement

of the elk across the site. As with forest uses, once the area is reclaimed, it will return to its prior elk habitat value. The applicant has proposed an adequate sediment control plan which will allow fish uses to continue and coexist with the aggregate extraction uses. Similarly, the applicant has given necessary assurances that wetlands will be protected by adequate setbacks. We determine, on balance, and giving consideration of the steps taken by Bayview to reduce any adverse impacts, that the economic, social, environmental and energy analysis mitigates in favor of allowing the use at this site, with conditions. As discussed below, we have developed a program to achieve Goal 5 purposes.

Issue No. 9.

Given the economic, social, environmental and energy consequences to Goal 5 resources, the County must "develop a program to achieve the Goal."

Our initial decision in this matter was accompanied by 14 conditions which were designed to limit the adverse impacts of the proposed quarry operation. We specifically adopt those 14 conditions by reference herein as part of the program to achieve Goal 5 purposes. These conditions include compliance with DEQ noise standards. We note that this condition will help to mitigate any impacts on Goal 5 wildlife resources. In addition, we note that this condition will help insure compatibility of the operation with adjacent forest and residential uses. These conditions also contain a requirement that the operator obtain all State and federal permits. This would include the appropriate DOGAMI permits, including a reclamation plan. This condition will help to preserve Goal 5 values by returning the area to forest and habitat uses once the aggregate extraction operation has terminated. These conditions also contain the requirement that sedimentation ponds be installed so that water turbidity levels in Square Creek are not increased. Applicant has agreed to construct ponds in such a manner that they will handle a 100-year flood event without adverse effect on Square Creek. This condition is designed to protect Goal 5 fishery resources in the adjacent creek. We find that after consideration of the applicant's proposed settlement control plan, the Oregon Department of Fish and Wildlife indicated the applicant's plan for sediment control was a good plan. Conditions also require that roads shall be maintained in a dust-free condition during intensive operations. This condition is designed to reduce dust impacts on adjacent wildlife and fishery uses and minimize any impact on forest resources. Conditions also require observance of riparian setbacks. This condition insures that riparian values

(fish and wetland) are protected. Finally, the original conditions include the requirement that the applicant provide adequate boundary line delineation of the quarry and stockpile sites. This condition allows the applicant flexibility in locating sediment ponds to maximize the effectiveness of the sedimentation pond design. We hereby add the following conditions which are designed to implement and achieve Goal 5 purposes:

First: No barriers will be constructed to prevent wildlife migration, unless required by adjacent residential uses. (This condition will protect Goal 5 wildlife values by allowing continued migration and access by elk to the site.)

Second: Extraction operations on the site will be limited to the hours of 7:00 a.m. through 10:00 p.m. (This condition will help reduce noise impacts on adjacent Goal 5 wildlife values, as well as increase compatibility with adjacent residential uses.)

Third: No extraction activities will occur during the months of December and January. (This condition will eliminate sediment impacts during rainy months and preserve Goal 5 fish values. In addition, this condition will reduce noise and dust impacts upon residences located to the northeast in the event that winds would come from the southwest during this period of time.)

Fourth: The toe of any development will be located according to regulatory approval to protect wetlands. (In conjunction with the setback requirement of the original 14 conditions, this condition is to preserve and protect Goal 5 wetland values.)

Fifth: Rock drilling equipment no louder than 90 dBA [L(50)] will be used at the extraction site. This condition will insure that quieter equipment will be used and thereby eliminate noise impacts on Goal 5 wildlife resources and increase compatibility with nearby residential uses.

Sixth: Minimum stream flow for Square Creek needs to be established by the Oregon Water Resources Department. Water in excess of the prescribed minimum stream flow developed by the Water Resources Department shall not be removed from Square Creek. (This condition will preserve water during low flow periods for fishery purposes.)

Seventh: Extraction shall be in accordance with the staged extraction plan as submitted by applicant as prepared by David Evans & Associates, Inc. on August 26, 1987. (This condition will result in the mouth of the quarry being oriented away from residences and will result in a lip of rock being maintained between the resources and the quarry. This will insure sound levels are within DEQ standards.)

We conclude that these conditions, together with the conditions imposed and adopted by us in the prior proceeding and together with the Bayview excavation plan and sedimentation control plan, constitute a program designed to achieve Goal 5

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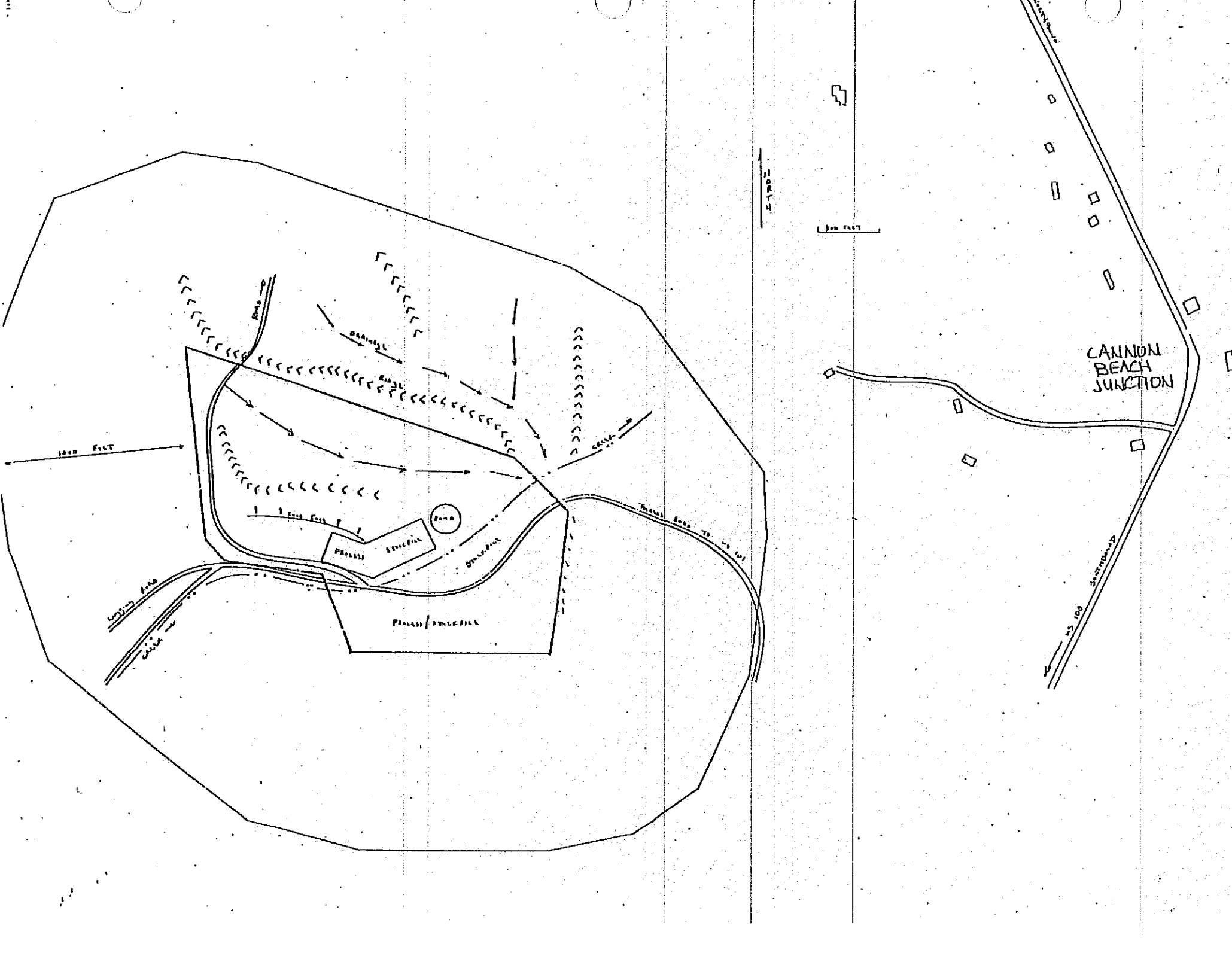
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5

CLATSOP COUNTY BIG CREEK ROCK PIT

GOAL 5 ANALYSIS

BACKGROUND:

The Big Creek rock pit is located in the north central area of Clatsop County in the Knappa-Svensen area, on the southwest side of Big Creek Hatchery Road, approximately two miles south of US Highway 30. The purpose of the pit is to provide base rock for County roads and dikes in this area of the county. The property which the county owns consists of approximately six acres of land leased from Agency Creek Management and Boise Cascade. The County has operated this pit since the 1950s as a non-commercial quarry. The pit has provided rock for most of the County roads in the northern area of the County, primarily the Knappa-Svensen, Brownsmead, and Westport areas. Approximately 3,000 cubic yards are extracted from the quarry annually, and is primarily used for fill and base rock.

PURPOSE:

The County maintains a number of quarries in order to supply rock for the construction and maintenance of its road system. While virtually all of the 40,000 cubic yards of gravel used by the County is supplied by commercial quarries, the material in the County-owned quarries is used primarily for base rock, fill and other purposes. The County does not maintain its own gravel processing facilities or asphalt plant for surfacing materials. Rather, it relies on private contractors, who are located primarily in the Seaside area. From time to time the County may contract with an operator who will crush the material for future use by the County or its contractors. County-owned aggregate sites provide a source of material which lowers the cost of transportation and saves tax revenues.

CLATSOP COUNTY COMPREHENSIVE PLAN:

The Land Conservation and Development Commission acknowledged the County's Comprehensive Plan on May 31, 1984. However, no mention of the Big Creek rock pit was included in the Goal 5 portion of the Plan. This analysis is intended to be included in the Comprehensive Plan, and to establish the Big Creek quarry as a priority site. The County finds that the site would not be affected by conflicting uses, including nearby residences or forest lands. This designation is consistent with a determination to preserve the resource in accordance with the Goal 5 administrative rule (OAR 660-16-005(1). In the event that the County receives a request to rezone properties in the vicinity to a zone that would permit conflicting uses, this overlay designation would protect the site from encroachment. No such rezoning or development is

proposed as this time.

DESCRIPTION OF PROPOSED MINING ACTIVITIES

Clatsop County Road Department will develop the site over an extended period of time. No commercial activities are proposed. The use of the site will be intermittent, and will be dependent on the County's demand for rock. It is estimated that over 400,000 cubic yards of rock are readily available on the site which could be extracted over a twenty to thirty year period. Full use of the site for extraction could take several decades. The use of the site for stockpiling materials from other locations, such as gravel and sand, is also planned.

The extraction method proposed for the site is benching. Because of the nature of the rock - Columbia River Basalt - controlled blasting will be performed on occasion. The County will require that all trees and other vegetation remain undisturbed in locations not necessary for mining operations, and that berms be constructed to screen stockpiles and mining from the roadway. Because of the presence of the State of Oregon Big Creek Salmon Hatchery, particular attention will be paid to minimizing negative impacts on water quality in the area. Recent construction of residential uses in the Big Creek area places pressure on the County to take greater care to minimize the impacts of quarrying on the tranquillity of the area. The County will ensure that the site is reclaimed in accordance with state regulations administered by DOGAMI.

COMPLIANCE WITH STATEWIDE PLANNING GOAL 5

The Statewide Planning Goal Number 5, requires in part that "where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal."

The goal guideline suggests that "in conjunction with the inventory of mineral and aggregate resources, sites for removal and processing of such resources should be identified and protected."

The Goal 5 rule specifies the requirements and procedures local government must follow to comply with Goal 5. Goal compliance involves six basic steps:

1. Identify a resource's location, quality and quantity;
2. Determine the resource's significance;
3. Identify conflicting uses;
4. Analyze the economic, social, environmental and energy consequences of conflicts;
5. Determine the level of protection for the resource;
6. Implement a program to protect significant resources.

The purpose of this process (and this report) is to complete the Goal 5 process and protect the Big Creek site for future use by the Clatsop County Road Department. It is recognized that future development in the vicinity of the Big Creek pit may be in conflict with future development in the vicinity of the site.

REQUIREMENT OF THE GOAL 5 ADMINISTRATIVE RULE

Location

As described above, the Big Creek quarry property consists of 6.0 acres located on Big Creek Mainline, off of approximately two miles south of US Highway 30 at T8N R7W, Section 29, tax lot 700. The entire property parcel is 128 acres and is owned by Boise Cascade. The impact area includes tax lots 2903, 2904, 3000, 3001, 3002, 3300, 105, 109, 406, 409, 500, and 600. Several of these parcels are of the size suitable for rural residences, although no dwellings are located on them at the present time. Property to the south, west and east are large parcels of timber lands owned by forest management companies. The zoning designation for this area is Forest 80. (F-80).
Protection of the site will include the entire 20 acre Clatsop County parcel, although it is unlikely that the entire site will be mined.

Quality

No abrasion, sodium sulfate soundness or air degradation tests have been performed on the material in this pit. However, it is the considered opinion of the County public works director and engineer that the basalt rock is of high quality. It has been used to good effect on many County roads in the northeast area of the County in the last thirty or forty years. If the material were to be used for asphalt or concrete, tests would be performed specifically for that purpose.

Quantity

The estimated 300,000 cubic yards in this pit qualifies it as a medium size quarry in Clatsop County. This estimate is based on visual examination of the site and aerial photos by County staff, but no geologic investigation has been carried out.

Conclusion

The large amount of basalt in this location makes the Big Creek pit

a unique resource. It is a significant pit in the northern portion of the County, and is centrally located with respect to County roads. Its lack of surrounding development means minimal conflicts in the future.

The quarry is a significant resource by virtue of its location, quality and quantity, and should be retained on the inventory of significant Goal 5 resources in the Clatsop County Comprehensive Plan.

Conflicting Uses

Identifying conflicting uses to a significant resource site requires two principal steps: 1) designating and justifying an impact area surrounding the resource, and 2) determining conflicting uses allowed by the zoning ordinance, and identifying conflicts with other significant Goal 5 resources.

Impact Area

The Goal 5 rule (OAR 660-16-0002) requires identification of an impact area surrounding the resource site if different from the resource site itself. The impact area is the area in which identified conflicting uses may adversely affect the resource. Although impact area is not defined in either the goals or in the Goal 5 rule, the impact area for a mineral and aggregate resource site must be the area which includes uses which could adversely affect the resource, but also the area including those uses which could be affected by the presence of a significant resource.

Noise, dust odor and blasting effects may adversely affect surrounding land uses. Conversely, the complaints expressed by surrounding property owners about these effects, as well as complaints about traffic and the effects to visual quality influence whether, or how, a resource may be mined. At the present time there is no conflicting use in the vicinity of the quarry. However, the purpose of the designation of the overlay zone is to anticipate future rezonings or other incompatible use of the property. There are twenty-one uses permitted in the F-80 zone, including forest related dwellings, and it is impossible to determine with certainty whether a parcel will be used for a particular use.

The Big Creek quarry is not visible from the adjacent County road or the residential area in the Big Creek valley. Any future expansion will ensure that the existing buffering and screening from the road and residences will be enhanced. Traffic is not a problem because of the occasional use of the quarry. Big Creek Road (Hillcrest Loop) is a collector road, and services the State of Oregon Big Creek hatchery. The hatchery has seven residences on the site for State hatchery employees. There have been no known conflicts between the quarry and the hatchery in the recent past.

More frequent use of the site, even on a daily basis, is not anticipated to impact any other users of the road.

Potential Conflicting Uses

Most of the property surrounding the Big Creek quarry is zoned F-80, the County's prime forest production zone. It is intended "to provide for large-scale commercial forest management where parcel size and ownership patterns are adequate to support such activities." In addition to forestry uses, this zone also permits forest related residences and offices, grazing, aquaculture, watershed management, and home occupations.

Conclusion

Within the impact area surrounding the Big Creek Quarry, few conflicting uses are found, and few land uses which may have conflicts with a rock quarry are anticipated. Nonetheless it is in the interest of Clatsop County and its citizens to protect this resource for the future.

ESEE Analysis

The Goal 5 rule (OAR 660-16-005(2)) requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy (ESEE) consequences of the conflicts must be determined. "Both the impacts on the resource site and on the 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."

Economic

The economic consequences of allowing conflicting uses to be established near Big Creek quarry are significant. While large scale urban development is not likely, even one or two dwellings could affect the operation of the quarry through neighbor complaints, particularly when the quarry is owned by a local government. The economic consequences of allowing the conflicting uses in monetary terms is difficult to predict. On the assumption that there are 250,000 usable cubic yards of material in the quarry, and the average price of pit run rock is $5.00 per yard, the current value of the quarry is $1.25 million at the quarry site. Transportation is a significant factor in the cost of aggregate materials. The Big Creek quarry is strategically located for the northeastern portion of the County. Not having access to the Big Creek quarry would mean the county would have to haul rock from the Clifton quarry, or possibly the Fishhawk quarry. Additional costs include resolving conflicts after they have surfaced. Political entities such as the County are especially

vulnerable to conflicts. Delays during the construction season can create severe problems for project budgets.

Since the surrounding property is undeveloped at this time,-- economic consequences for these parcels are speculative. Uses may be proposed for these parcels which can be compatible with the quarry operation.

Social

The consequences of allowing conflicting uses adjacent to quarry operations are not directly applicable to protection of the rock resource itself. However, the social consequences of development upon surrounding land uses may cause significant modification of quarry operations. Even one single family dwelling could bring pressure to bear on the County to restrict or terminate operations. If conflicting uses are allowed near the site, it is possible that the resource could not be developed because of the inability to meet environmental regulations designed to protect the livability of surrounding property. Requiring measures to protect conflicting land uses from the impacts typically generated by quarry operations could result in curtailed productivity and a reduction in livability for other County residents which rely on a high standard of roads and dikes. The effect on conflicting uses if the development is allowed includes the typical and unavoidable effects of quarry operations, including noise, dust and truck traffic. The site is not a permanent, year-round commercial quarry operation, and it is difficult to predict the effects totally. The County will work with DEQ and ODFW to develop the site in the most appropriate manner. The recently adopted Quarry and Mining Overlay Zone (QMO) contains standards to regulate the operation of the quarry, but they may not be sufficient to satisfy neighbors.

Environmental

No adverse environmental consequences are anticipated from fully allowing the conflicting use. However, allowing a sensitive use in the vicinity, such as a residence, may cause the County to curtail or abandon the operation. Environmental impacts such as dust, noise and vibration, as well as visual or aesthetic impacts, can have a real impact on the quality of life for residents in the area, or for schools. As described above, the County will work with DEQ and ODFW to control adverse impacts during operation, and will reclaim the site in accordance with DOGAMI requirements upon closure.

Energy

Since the distance traveled between an aggregate resource site and job site is the most critical part in assessing energy consumption, eliminating the Big Creek quarry from the choice of sites would

increase overall County energy usage. Material would have to be trucked in for use on County and State Highway projects from out of the County, barged in from up the Columbia River, or trucked from quarries such as Fishhawk, or the Highway 202 area. Energy impacts on conflicting uses would be negligible. Any potential conflicting use would likely be a rural residence. Not locating in this area could have positive energy impacts, particularly if the occupant located closer to employment.

REQUIREMENTS OF OTHER APPLICABLE STATEWIDE PLANNING GOALS

Goal 4 - Forest Lands

Goal 4 - Forest Lands

The quarry is located in the F-80 zone, which is intended to protect the forest resource. Aggregate operations on this site are not expected to conflict with the protection of forest land, forest practices, or other activities necessary and appropriate for management of soil, air, water, fish and wildlife resources, the provision for recreational opportunities, and agricultural uses. Use of the quarry is a transient or temporary land use which should not preclude forest activities on surrounding lands.

Mining and processing of aggregate and mineral resources are permissible uses of forest lands as specified by the Goal 4 administrative rule. No aspects of the quarry's development, as envisioned by the County, would force a significant change in, or significantly increase the cost of accepted forest or farming practices on surrounding lands dedicated for resource use. Similarly, no aspects of proposed operations are expected to significantly increase the fire hazard, the cost of fire suppression, or the risks to fire suppression personnel.

Goal 6 - Air, Water and Land Resources Quality

The environmental effects of quarry operation is discussed above. As mentioned, the County will comply with all DEQ, ODFW, and DOGAMI requirements during operation and during closure of the site. Any crushing equipment used on the site will require permits from DEQ; contractors are required to obtain and comply with all permits. The County has not yet been required to prepare a reclamation plan for DOGAMI because of the limited amount of activity on the site. However, a plan will be prepared when the threshold level of activity is reached.

Goal 12 - Transportation

Statewide planning goal 12 requires local governments "to provide

and encourage a safe, convenient and economic transportation system." The purpose of the Big Creek site is to provide a low cost source of rock for County, and possibly State, roads and highways. With the proximity of the site to the Knappa - Svensen areas, and to US Highway 30, the cost of the public road system can be reduced by the protection of this quarry.

Goal 13 - Energy Conservation

As described above, the location of the quarry will save energy by virtue of its strategic location, and the fact that rock would have to be imported from other places such as the Willamette Valley.

DETERMINATION AND PROGRAM TO ACHIEVE THE GOAL

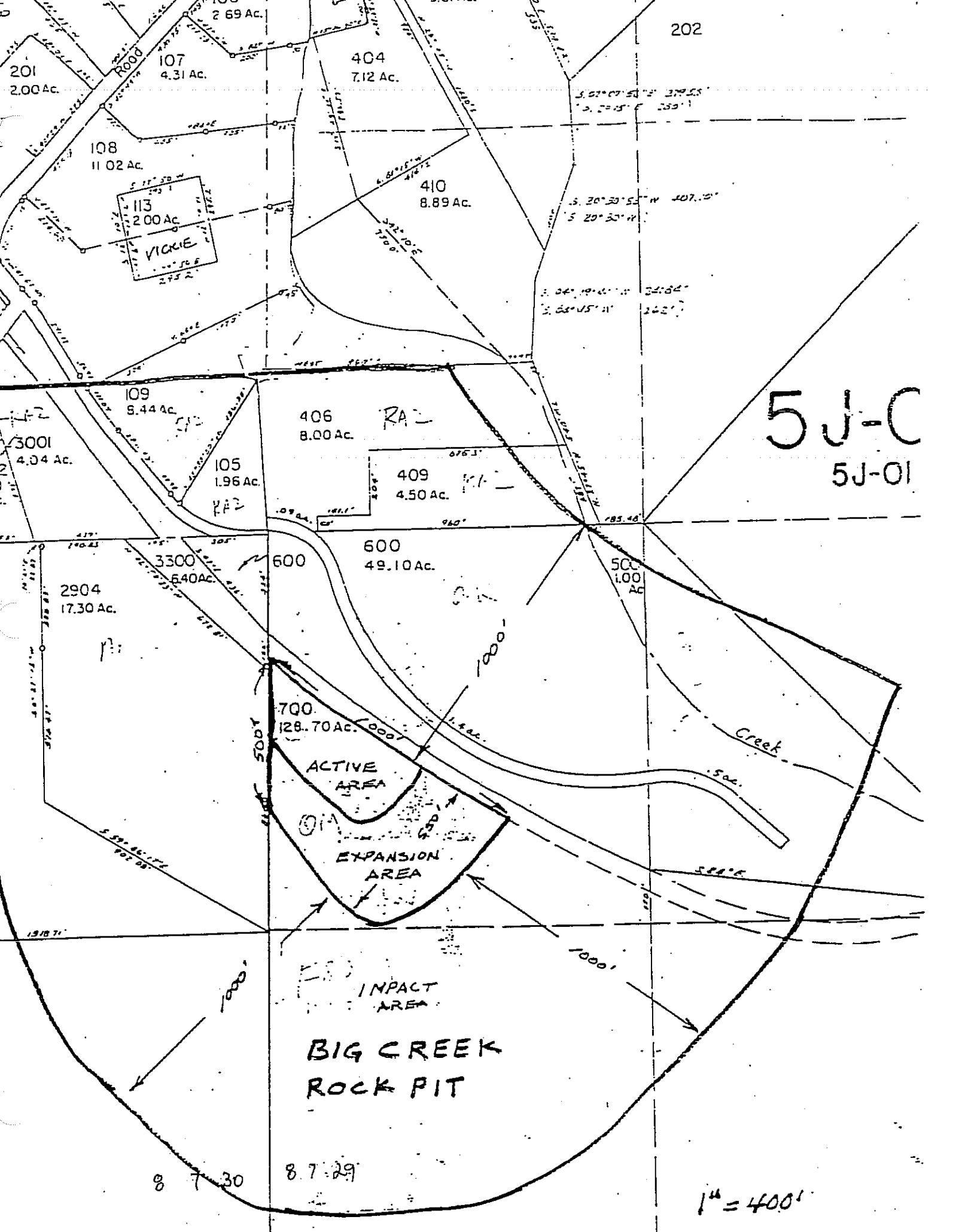
Summary of the ESEE Analysis

The ESEE analysis demonstrates that the Big Creek site is a significant aggregate resource for Clatsop County, and should be protected through the County planning process.

Program to Achieve the Goal

The Goal 5 rule (OAR 660-16-010) provides: "Based on the determination of the economic, social environmental and energy consequences, a jurisdiction must develop a program to achieve the Goal."

The County has adopted policies in the Comprehensive Plan and a zoning overlay zone to protect significant quarry sites. The purpose of this analysis is to demonstrate that the Big Creek quarry is significant. The attached map (Attachment 1) illustrates the active quarry site, the expansion area and a 1,000' impact area surrounding the expansion area. The underlying zone will continue to be F-80, and the QMO overlay will be on the expansion area until the site is no longer useful for mineral or aggregate extraction or processing. At the end of the site's usefulness the QMO zone will be removed and the site will be reclaimed.


201
2.00 Ac.
Road
107
4.31 Ac.
2.69 Ac.
404
7.12 Ac.
202
108
11.02 Ac.
113
2.00 Ac.
VICKIE
410
8.89 Ac.
109
8.44 Ac.
406
8.00 Ac.
RA
3001
4.04 Ac.
105
1.96 Ac.
409
4.50 Ac.
600
49.10 Ac.
3300
6.40 Ac.
600
500
1.00 Ac.
2904
17.30 Ac.
700
128.70 Ac.
1000'
500'
ACTIVE AREA
EXPANSION AREA
Creek
IMPACT AREA
BIG CREEK
ROCK PIT
8 7 30
8 7 29
1" = 400'
5J-C
5J-01

MAP & FINDINGS

REQUEST FOR QUARRY AND MINING OVERLAY ZONE
JOHNSON ROCK QUARRY
MAY 24, 1993

INTRODUCTION:

Howard E. Johnson & Sons, Inc. owns 55.52 acres near Cannon Beach Junction in which they operate a quarry and mine for rock aggregate. The site has been in existence for 41 years. It is anticipated, at the current rate of mining, that it will provide rock and gravel for the next twenty years.

The properties are described as Tax Lots 101 and 200, Section 4, Township 5 North, Range 10 West, W.M. and a portion of tax lot 301, Section 3, Township 5 North, Range 10 West, W.M.

Lots 101 & 200, Section 4, T5N, R10 W, WM are zoned Quarry Mining. The portion of lot 301, Section 3, T5N, R10W, WM is zoned F-80, Forest 80, With a QMO, Quarry Mining Overlay Zone.

In November 1992, Clatsop County amended the Comprehensive Plan and Zoning Ordinance to provide for the Quarry Mining Overlay Zone and to establish the Mineral and Aggregate Impact Area with a minimum width of 1000 feet from the extraction area. A map of the impact area and extraction area is attached.

The following Economic, Social, Environmental and Energy Consequences Analysis (ESEE Analysis) is to address these new county regulations for the Johnson Rock Quarry.

FINDINGS:

Description of the Extraction Area:

The northerly one third of the property is primarily devoted to nonmining activities such as the office and storage. The area of the actual mining is in the southerly two-thirds of the property and the actual mining and crushing activities are moving toward the southerly and easterly boundary of the property.

Description of the Impact Area:

A one thousand foot radius includes most of the Cannon Beach Junction which is a Commercial environment. Commercial activities included are: A lumber company storage yard, a restaurant, a yard and garden store and an auto wrecking business. Directly to the south, the area includes a farm operation and directly west is a horse riding and boarding farm. The impact area also includes 11 single family residences. To the north is a mobile home park and campground with fifteen permanent residential units and the City of Seaside's water reservoir. To the east is forest land. The Necanicum River also traverses the site.

These Impact Areas are zoned RA 2, RA 5, AF 20 and GC.

ESEE Analysis:

Economic Consequences.

The proposal will have positive economic impacts for the county. The site has served as a primary source of aggregate resources for this portion of the county for over 40 years. Continuation of the site for aggregate use will provide continued employment and aid the economy of the county. Many development projects in our area require rock and aggregate materials.

There is currently insufficient land identified or available for extraction of aggregate material to meet the needs over a 20 year period. This site has the potential to continue to provide aggregate for the next 20 years.

Social Consequences.

The most significant potential social impacts of the site are visibility and noise from mining operations and truck traffic. There are 11 homes and 15 mobile homes at Riverside Mobile Home Park and Campground that are within 1000 feet of the site. The shift of the mining eastward will move the operation further away from these residences.

Visual impacts are discussed under environmental consequences.

Noise impacts are controlled by maintaining all equipment to insure proper functioning and minimized noise levels. Temporary noise barriers will be used whenever other noise mitigation measures and barriers are not adequate to maintain required noise levels for particular operations. There is little noise impact under present operations as the company receives few noise complaints from adjoining residents. Future noise impacts should stay approximately the same or lessen as the gravel crusher and auxiliary equipment are moved to the east.

Increases in truck traffic are not expected for the continuation of the operation. The only additional roads anticipated are to access the new area to the east. All truck traffic will continue to access Highway 101 at the present location.

Environmental Consequences.

Environmental consequences at the site include potential impacts on water quality, forest resources and wildlife.

Water drains from the quarry site through a series of siltation ponds and then ultimately discharges into the Necanicum River, a Class I stream. As the operation moves eastward, drainage flows will continue to be channeled into the present system of siltation ponds. This system is providing adequate settling opportunities for drainage and runoff and protects the aquatic resources of the Necanicum River. Regular consultation with Oregon Department of Fish and Wildlife officials insures that water quality of drainage and runoff discharges from the operation remains at or exceeds high water quality levels.

The City of Seaside water reservoir is located within the 1000 foot impact area. The City has two concerns, one is having dust and particulate carried airborne into the reservoir. The city has been acquiring additional property to buffer the reservoir site. Further, future plans for the reservoir call for treatment after the water leaves this particular reservoir. The second concern is that continued mining in the area of the material that also supports the reservoir could cause an impact in the ability of the reservoir to hold water. However, this has not been a problem in the past and all future mining operations are moving away from the reservoir site.

Expansion of mining operations will produce a less aesthetically pleasing appearance on the site. However, impacts will be screened. A fringe of alder trees and other existing riparian vegetation will be maintained along the Necanicum River and no mining or stockpiling or other aggregate-associated activities will be allowed to occur within these areas, thereby further protecting water quality as well as appearance. Areas not actively mined will be maintained in their present conditon. At such time as the operation nears completion, the mine will be reclaimed in accordance with a reclamation plan required and approved through the Department of Geology and Mineral Industries.

The current mining operation is located approximately 1000 feet east of U.S. Highway 101. A portion of that operation includes stockpiling of material on a small parcel of land between the operation and Highway 101. As the operation continues, it will move south and east so that the active face of the mine will be approximately 1500 feet from the highway. The actual mining will remain partially visible from the highway although better screened than the present mine.

The impact of the expanding mine and the purchase of property in the F-80 zone will cause some impact in terms of loss of the timber resource. It is not significant because only a small portion of the timber resources that once existed on this site still remain. The site contains no significant forest resources and has been substantially altered in its ability to be used for the production of trees or other forest products due to the steep slopes created by the mining operation.

Both the RA 5 and F 80 properties lie within the Peripheral Big Game Range classification of the county's comprehensive plan. The number of elk within a four square mile area surrounding the F 80 site is estimated to be a couple of hundred animals. ODFW does not consider the site to be important big game habitat, however, the operation avoids the use of fences to allow elk passage through the area.

Energy Consequences.

The Johnson property is only a short distance from the Cannon Beach Junction and is close to the market area. Its location near Highway 101 should reduce transportation and energy costs over site located further from the highway.

CONCLUSIONS:

Conflicting resources that exist as a result of the Quarry Mining operation at this site and for the impact area include:

1. Protection of the Nelcanicum River including water quality and fish resource.

Setbacks of a minimum or 150 feet from the river are required to protect this resource. Riparian vegetation is protected adjoining the river. Run off is controlled through the use of sediment ponds which are in place on the property. The Oregon Department of Fish and Wildlife monitors the water quality as it runs into the river and in the river adjoining the operation.

2. Wildlife (Elk) habitat.

No barriers such as fences are constructed that prevent wildlife migration. Elk are able to migrate and take advantage of the adjoining forest lands.

3. Protection of the Seaside Water Reservoir.

Although there has not been conflict between the mining operation and the water reservoir in the past, to prevent problems in the future, the city is acquiring additional buffer land to protect its own reservoir. Also, the city is under a DEQ order to either cover this reservoir or treat the water after it leaves the reservoir. The protect the reservoir is enhanced as mining operations are moved away from the reservoir to the opposite end of the property.

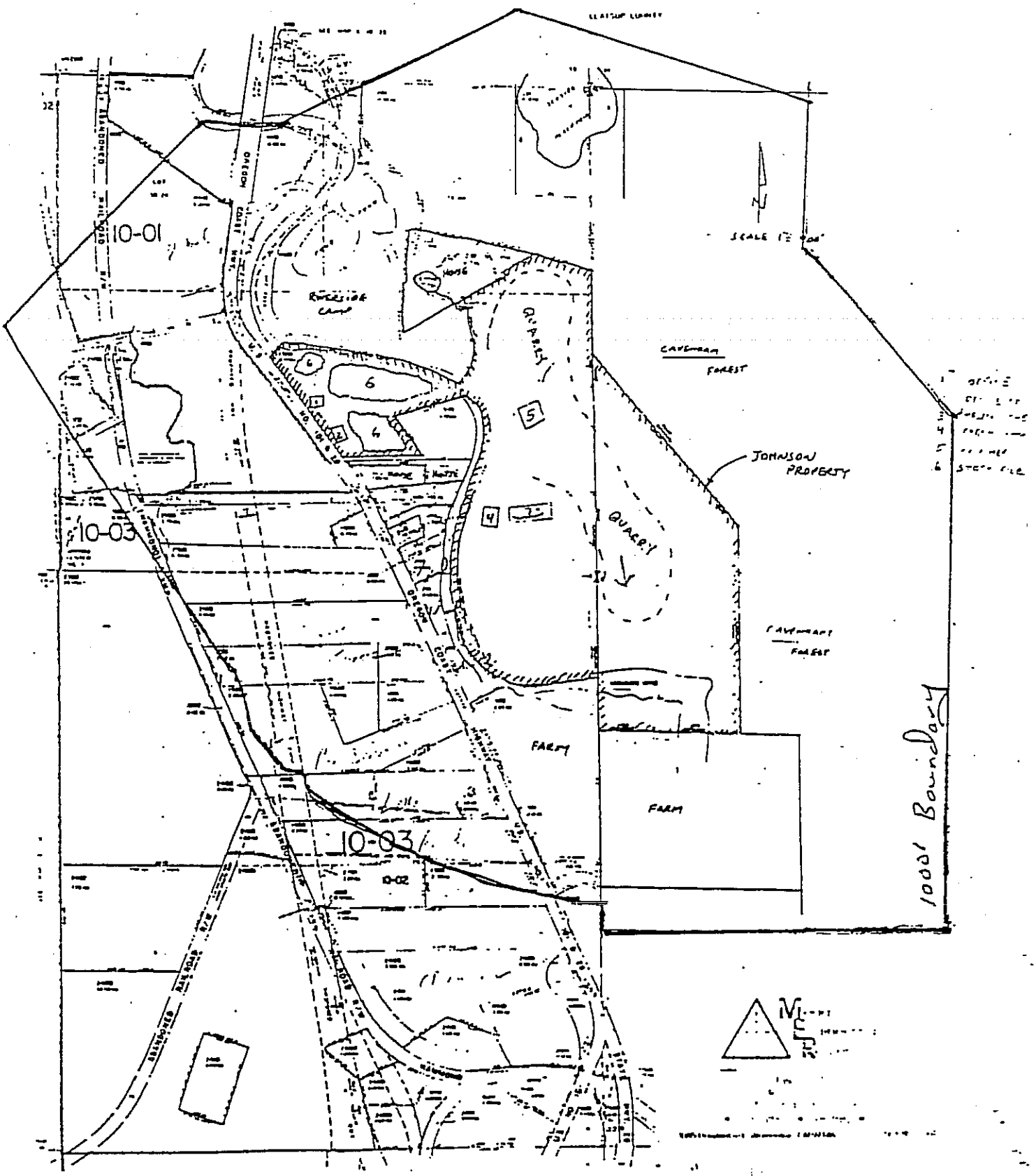
4. Visual impacts.

The site will become less visable as the operation moves to the east. Vegetated buffers are maintained to lessen the impact.

5. Noise impacts.

Extraction operations on the site are limited to the hours of 7:00 AM through 10:00 PM. Setbacks and noise barriers help to mitigate noise factors.

NE¼ SEC. 4 T.5N. R.10W. W.M.
CLATSOP COUNTY



RECORDED
AUG 1993
BCC DOC # 93-48-CS-16
REEL #
JBP

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

(AN ORDINANCE AMENDING THE
(CLATSOP COUNTY LAND AND WATER
(DEVELOPMENT AND USE ORDINANCE
(80-14 AS ADOPTED BY THE BOARD OF
(COMMISSIONERS, ADOPTING CERTAIN
(FINDINGS AND RESCINDING
(INCONSISTENT PROVISIONS

ORDINANCE NO. 93-18

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the QM Overlay/Zone Change, Johnson Quarry Expansion Amendment.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Land and Water Development and Use Ordinance. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the said Clatsop County Land and Water Development and Use Ordinance.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Planning Commission held a public hearing on June 3, 1993. The Board received and considered the Planning Commission's recommendations

on this request and held a public hearing on this ordinance pursuant to law on July 28, 1993.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supercede, control and repeal any inconsistent provision of the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effective 30 days following adoption of this Ordinance.

SECTION 7. ADOPTION CLAUSE.

The Board of Commissioners hereby adopts the QM Overlay/Zone Change, Johnson Quarry Expansion Amendment, set forth in Exhibit "A" attached hereto and by reference herein made a part of this ordinance in its entirety.

ADOPTED this 11th day of August, 1993.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By _____
Eric Olsen, Chair

By _____
Recording Secretary

Effective Date: 9/10/93

APPROVED AS TO FORM: _____
Clatsop County Counsel

EXHIBIT "A"

REQUEST FOR QUARRY AND MINING OVERLAY ZONE CHANGE
JOHNSON QUARRY EXPANSION
TAX LOT 301, SECTION 3, TOWNSHIP 5 NORTH, RANGE 10 WEST, W. M.

INTRODUCTION:

Howard E. Johnson & Sons, Inc. proposes to acquire 8.62 acres adjoining the present quarry to the east for the purpose of expanding the quarry. The property is currently owned by Cavenham Forest Industries. The primary purpose for this property is for storage of rock aggregate, although some mining of rock will occur. The Necanicum River flows through the southernmost 300 feet of the property. The existing quarry is located in T5N, R10W, Section 4, Tax Lots 101 and 200. These properties are zone Quarry and Mining (QM). The Quarry consists of 47.9 acres. The Johnson Quarry site is one of five zoned sites in the County. Of the five sites, only two are commercial sites. The others are county or state sites. The proposal is to apply the Quarry and Mining Overlay Zone to the 8.62 acres being acquired.

FINDINGS:

The property is zoned F-80, Forest 80.

The property is described as a portion of tax lot 301, Section 3, Township 5 North, Range 10 West, W. M.

A site plan review is required before actual development of the property occurs. However, since the adjoining land is already functioning as a quarry, many of these standards are being met.

Use standards include a setback for surface and subsurface mining operations: 1,000 feet from adjacent residences and residential lands. The nearest residences adjoin Highway 101 and are more than 1,000 feet from this property. The adjoining land is F-80 and QM.

GOAL 5 ISSUES

Goal 5 includes mineral and aggregate resources as resources to be protected.

Economic, Social, Environmental, and Energy Analysis

The Goal 5 rule requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy consequences of the conflicts must be determined.

Economic consequences

The Johnson site has served as a primary source of aggregate resources for the south portion of Clatsop County for over 20 years. Expansion of the site for aggregate and aggregate storage will continue to provide this resource which is an essential material for almost all construction projects, which in turn provides employment which aids the area economy.

The south county market area has an annual need for 250,000 cubic yards of aggregate. There is insufficient land zoned QM to meet the needs for a 20 year period in this market area. The addition of this 8.62 acres will somewhat alleviate that by providing an additional 760,000 cubic yards of material. The main use of the site, however, will be stockpiling.

Social Consequences.

The most significant potential social impacts are visibility and noise from the ning operations and truck traffic. The current Johnson site has seven homes within 1000 et of the operation. The eastward expansion will shift the operation further away from the existing residences. This will have the effect of moving both the visibility impacts and the noise impacts further from the residences.

All equipment is maintained to insure proper functioning and minimize noise levels. With proper setbacks and the limitation on hours of operation, noise problems have been mitigated.

No additional truck traffic is expected from the expansion of the operation, although additional roads will be constructed. Expanding the operation will not require a change to the present access point onto Highway 101.

Environmental consequences

Environmental consequences at the site include potential impacts on water quality, forest resources, and wildlife.

Water drains from the quarry site through a series of siltation ponds and then discharges into the Necanicum River, a Class I stream. As the operation moves eastward, drainage flows will continue to be channeled into the present system of siltation ponds. This system is providing adequate settling opportunities for drainage and runoff and protects the aquatic resources of the Necanicum River. Regular consultation with Oregon Department of Fish and Wildlife officials insures that water quality of drainage and runoff discharges from the operation remain at or exceed present levels.

Expansion of mining operations will produce a less aesthetically pleasing appearance on the site adjoining the river. Impacts will be screened, however.
A fringe of alder trees and other riparian vegetation will be maintained along the River and no mining or stockpiling or other aggregate-associated activities will be allowed to occur within 150 feet of the River. Areas not actively mined will be maintained in their present condition. At such time as the operation nears completion, the mine will be reclaimed in accordance with a reclamation plan required and approved through the Department of Geology and Mineral Industries.

The active face of the mine is approximately 1500 feet from the highway. The expansion will move the face even further from the highway, ultimately making it less visible. There is a partially treed screen between the existing site and the highway.

The impact of the loss of timber resource is minimal because only a small amount of timber resource exists in this 8.62 acres.

This area lies within the Peripheral Big Game Range classification of the county's comprehensive plan. The number of elk estimated within a four square mile area surrounding the site is on the order of a couple of hundred animals.

The site contains no significant natural, scenic or scientific areas. No hazard to the stability of adjacent lands has been experienced.

Energy consequences.

The Johnson site is near the center of its market area. Other zoned quarries are some distance from the market area. The Johnson site enjoys an energy benefit in that additional fuel need not be spent to transport aggregate material. The energy costs of operating a quarry are the same no matter what the location might be. The expansion of the Johnson site will not result in negative energy consequences.

Conclusions.

Conflicting resources that exist on this property include:

1. Protection of the Necanicum River, including its fish resource.

Setbacks of a minimum of 150 feet from the river will occur to protect this resource. Riparian vegetation will be protected adjoining the river. Run off is controlled through the use of sediment ponds which are in place on the property.

2. Wildlife (Elk) habitat.

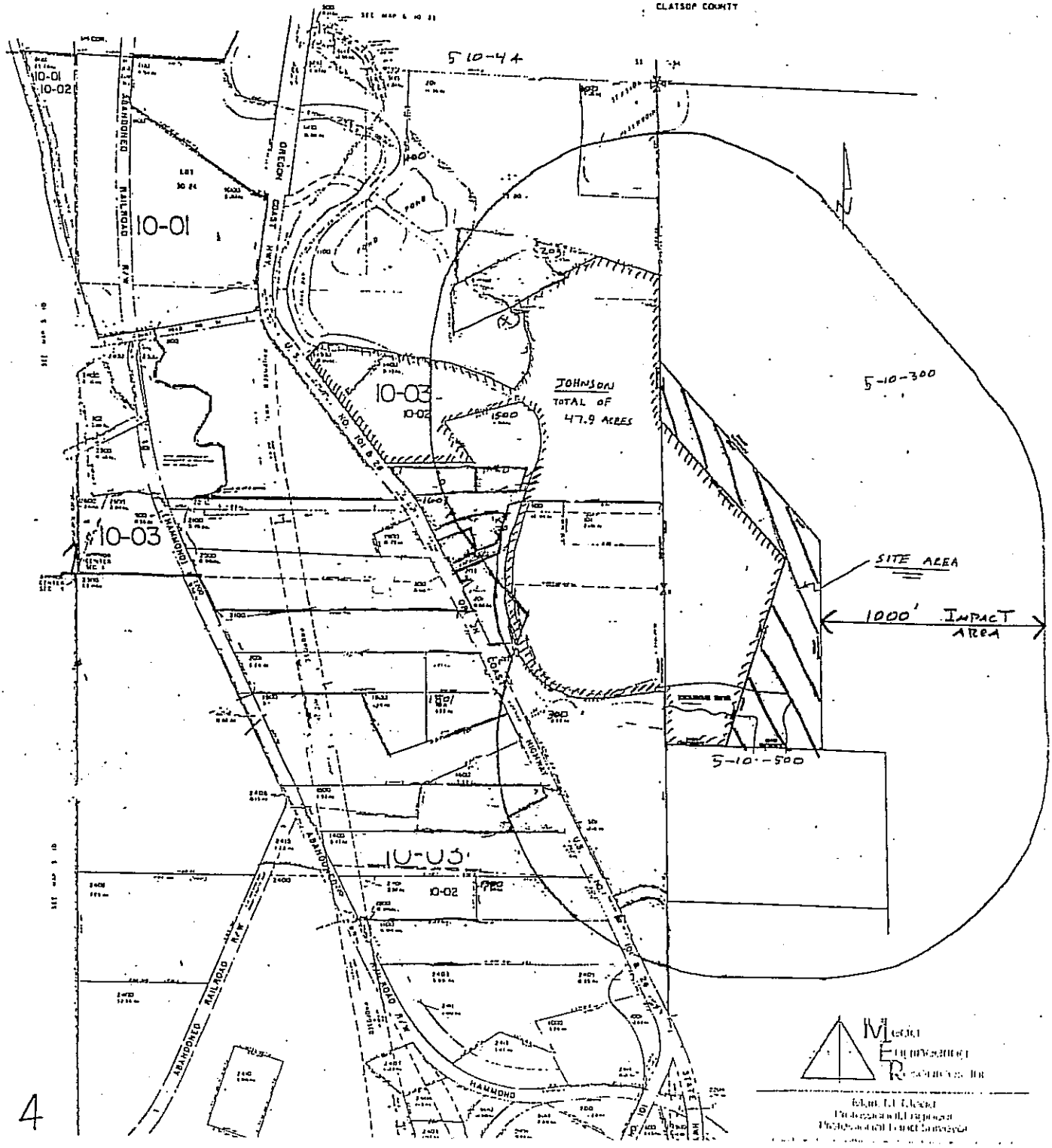
No barriers will be constructed to prevent wildlife migration. Elk will be able to migrate and take advantage of the adjoining forest lands.

3. Noise and visibility.

Extraction operations on the site are limited to the hours of 7:00 AM through 10:00 PM. Setbacks also help to mitigate noise and visibility factors.

The economic, social, environmental, and energy consequences of expanding the site can be mitigated and are far less significant than having to locate at another site and in moving the operation.

NE¼ SEC. 4 T.5N. R.10W. W.M.
CLATSOP COUNTY



To: Clatsop County Planning Commission

From: David Carpenter, Senior Planner

Re: H E Johnson & Sons QMO Request.

Location: T5-R10-Sec3-TL301

Date: April 9, 1993

I Listed below are the applicable Plan and Ordinance requirements and standards that will be used to review this application.

A. Clatsop County Comprehensive Plan (County-Wide Element)

1. Goal 1 (Citizen Involvement)
2. Goal 2 (Land Use Planning)
3. Goal 5 (Open Space, Scenic and Historic Areas and Natural Resources)

B. Clatsop County Land and Water Development and Use Ordinance 80-14

1. Article I
   Section 1.040 (Scope and Compliance)
   Section 1.050 (Consistency with Comprehensive Plan)
2. Article II Procedures
   Section 2.140 (Type IV Procedure)
3. Article III Zones
   Section 3.550 (F-80)
4. Article IV Special Districts
   Section 4.400 (Quarry and Mining Overlay District)(QMO)
4. Article V Permit and Issue Determinations
   Section 5.400 (Zone Changes)
   Section 5.410 (Purpose)
   Section 5.412 (Zone Change Criteria)
5. Article VI Public Deliberations and Hearing
   Section 6.010-6.405

II Findings

A. Background and Definitions

Applicant:

Howard E. Johnson & Sons, Inc. proposes to acquire 8.62 acres adjoining the present quarry to the east for the purpose of expanding the quarry. The property is currently owned by Cavenham Forest Industries. The primary purpose for this property is for storage of rock aggregate, although some mining of rock will occur. The Necanicum River flows through the southernmost 300 feet of the property. The existing quarry is located in T5N, R10W, Section 4, Tax Lots 101 and 200. These properties are zoned Quarry and Mining (QM). The quarry consists of 47.9 acres.

The Johnson quarry site is one of five zoned sites in the County. Of the five sites, only two are commercial sites. The others are county or state sites. The proposal is to apply the Quarry and Mining Overlay Zone to the 8.62 acres being acquired.

A site plan review is required before actual development of the property occurs. However, since the adjoining land is already functioning as a quarry, many of these standards are being met.

Use standards include a setback for surface and subsurface mining operation: 1,000 feet from adjacent residences and residential lands. The nearest residences adjoin Highway 101 and are more than 1,000 feet from this property. The adjoining land is F-80 and QM.

Staff:

H E Johnson and Sons has applied for a Quarry and Mining Overlay (QMO) District for a portion of land east of their current quarry operation. The subject parcel is currently zoned F-80 and would remain so zoned except that a QMO District would also exist.

Definitions:

CONFLICTING USE -- A use authorized in the underlying zone, which, if allowed, could adversely affect operations at a significant mineral and aggregate resource site, or could be adversely affected by mining or processing activities at a significant site. For purposes of this chapter, another Goal 5 resource located on or adjacent to a significant site may be considered a conflicting use if that resource could be adversely affected by mining or processing at the site.

ESEE ANALYSIS -- The analysis of economic, social, environmental and energy consequences of (a) allowing mining on a significant site, and (b) allowing conflicting uses to displace mining on a significant site. Based on the results of the ESEE analysis, the

County may determine a level of protection for the resource, and implement a program to achieve the designated level of protection.

EXTRACTION AREA -- The area within which mineral and aggregate extraction, processing and storage may take place under the provisions of this Chapter (see Appendix A).

IMPACT AREA -- An area determined on a case-by-case basis through the ESEE analysis, within which sensitive uses are limited or regulated (see Appendix A).

SENSITIVE USE -- A conflicting use or structure considered sensitive to dust, odor, vibration and/or noise, such as a residence, school, park or hospital. Industrial, agricultural and forestry activities are not sensitive uses unless the activity includes an accessory residential use.

Application of Overlay Zone:

The Quarry and Mining Overlay Zone consists of two distinct areas; the Extraction area and the Impact area.

(A) EXTRACTION AREA. The mineral and aggregate extraction area shall be applied to any site where mining will be permitted and which has been identified as a significant resource area in the Comprehensive Plan Inventory or through the QMO Overlay Zone designation procedure, outlined in Section 5:700. The area may consist of one or more tax lots or portion(s) of single tax lots, and may be applied to contiguous properties under different ownership. The size of the Extraction Area shall be determined by the Goal 5 process, but between any existing Sensitive Use and the extraction area boundary a general distance of 1,000 feet shall be applied. The exact distance may be varied through the planning process.

(B) IMPACT AREA. The mineral and aggregate Impact Area shall be applied to properties or portions of properties adjacent to and immediately surrounding an Extraction Area. The width of the Impact Area shall be determined through the ESEE analysis prior to application of the QMO Overlay Zone, based on the type of mineral or aggregate resource to be extracted as well as physical features of the area which may cause a larger or smaller area to be affected. The minimum width of the impact area shall be 1,000 feet from the Extraction Area boundary unless a reduced distance is justified, based on the ESEE analysis (see example in Appendix A).

B. Zoning and Special Districts

Clatsop County Land And Water Development and Use Ordinance.

Section 3.550 Forest-80 (F-80)
Section 4.400 (Quarry and Mining Overlay District)(QMO)

Staff:
See the discussion below regarding the purpose of the QMO District. An exception is not required in order to place the QMO over the F-80 zone.

C. Clatsop County Comprehensive Plan (County-Wide Elements)

Staff:
See the discussion below regarding Goal 5.

D. Clatsop County Land and Water Development and Use Ordinance.

Section 5.412(1) and (2) list criteria that must be met before a zone change can occur.

Section 5.412(1) The amendment shall be consistent with the Comprehensive Plan.

Staff:
The county has an acknowledged comprehensive plan that is composed of the county-wide elements and the community plans.

Goal 1 Citizen Involvement

Staff:
All applicable Comprehensive Plan and Land and Water Development and Use Ordinance goals and standards were developed with citizen involvement. This hearing addresses the goal requirements for this application.

Goal 5 Open Space, Scenic and Historic Areas and Natural Resources

1) Plan and Ordinance Criteria

Staff:
Placement of the QMO overlay requires an ESEE analysis. The analysis evaluates the impact of the proposed use in terms of the Economic, Social, Environmental and Energy consequences. Ordinance 88-1 established current operation, and includes an ESEE analysis of the existing use. Ordinance 88-1 is included as part of this staff report.

The proposed use and associated activities will be a

continuation of what currently occurs at the existing site. The current site is designated as a Quarry and Mining (QM) zone. The proposed site will remain in the F-80 zone but have the Quarry and Mining Overlay (QMO) designation.

The QMO overlay provides the following purpose statement:

The purpose and intent of the Quarry and Mining Overlay District (/QMO) is:

(A) To allow the development and use of mineral and aggregate resources;
(B) To provide uniform standards for extraction and processing of mineral and aggregate resources;
(C) To balance conflicts between mining operations and new and existing surrounding conflicting uses;
(D) To ensure the rehabilitation and restoration of mining sites; and
(E) To protect mineral and aggregate resources for future use consistent with Comprehensive Plan goals and policies and Statewide Planning Goal 5.

The Comprehensive Plan provides the following goal and policies:

Goal:

To protect and ensure appropriate use of mineral and aggregate resources of the county, while minimizing any adverse effects of mining and processing upon surrounding land uses.

Policies:

15)

When analyzing the ESEE consequences of potential conflicts between a significant mineral or aggregate resource and another significant Goal 5 resource, the county shall consider the protection program adopted for the conflicting resource. Conflicts with other natural resources shall not be the basis for mining restrictions unless the county has included the conflicting resource on the inventory of significant Goal 5 resources, and adopted a resource protection program.

16)

The county may consider the effects of surface mining operations on public roads and traffic. Consideration may include review of proposed routes, site distances at access points, roadway width and alignment, and level of service. The county may impose conditions or restrictions directly related to the impact created by surface mining; however, any conditions or restrictions shall not be approval criteria, and

shall be applied uniformly to all road users in a manner consistent with the county's transportation plan.

17)

In order to approve surface mining at a site zoned for exclusive farm or forestry use, the county shall find, as part of the ESEE analysis, that the proposed activity will not: 1) force a significant change in, or significantly increase the cost of, accepted farming or forestry practices on surrounding lands, and 2) will not significantly increase fore hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

19)

The county shall require increased setbacks, insulation, screening, or similar measures as conditions of approval for any new conflicting use within an impact area surrounding a mineral or aggregate resource site when such measures are deemed necessary to resolve conflicts identified in a site-specific Goal 5 analysis.

20)

The county may establish and impose conditions on operation of a surface mine when deemed necessary as a result of a site-specific Goal 5 analysis. Where such conditions conflict with criteria and standards in the Mineral and Aggregate Resources Overlay, the condition developed through the Goal 5 analysis shall control.

2) ESEE Analysis

The designation of a QMO district requires an ESEE analysis be performed. Following is the ESSE submitted by the applicant.

Applicant:

Economic consequences:

The Johnson site has served as a primary source of aggregate resources for the south portion of Clatsop County for over 20 years. Expansion of the site for aggregate and aggregate storage will continue to provide this resource which is an essential material for almost all construction projects, which in turn provides employment which aids the area economy.

The south county market area has an annual need for 250,000 cubic yards of aggregate. There is insufficient land zoned QM to meet the needs for a 20 year period in this market area. The addition of this 8.62 acres will somewhat alleviate that by providing an additional 760,000 cubic yards of material.

The main use of the site, however, will be stockpiling.

Social Consequences:

The most significant potential social impacts are visibility and noise from the mining operations and truck traffic. The current Johnson site has seven homes within 1,000 feet of the operation. The eastward expansion will shift the operation further away from the existing residences. This will have the effect of moving both the visibility impacts and the noise impacts further from the residences.

All equipment is maintained to insure proper functioning and minimize noise levels. With proper setbacks and the limitation on hours of operation, noise problems have been mitigated.

No additional truck traffic is expected from the expansion of the operation, although additional roads will be constructed. Expanding the operation will not require a change to the present access point onto Highway 101.

Environmental consequences:

Environmental consequences at the site include potential impacts on water quality, forest resources, and wildlife.

Water drains from the quarry site through a series of siltation ponds and then discharges into the Necanicum River, a Class I stream. As the operation moves eastward, drainage flows will continue to be channeled into the present system of siltation ponds. This system is providing adequate settling opportunities for drainage and runoff and protects the aquatic resources of the Necanicum River. Regular consultation with Oregon Department of Fish and Wildlife officials insures that water quality of drainage and runoff discharges from the operation remain at or exceed present levels.

Expansion of mining operations will produce a less aesthetically pleasing appearance on the site adjoining the river. Impacts will be screened, however. A fringe of alder trees and other riparian vegetation will be maintained along the River and no mining or stockpiling or other aggregate-associated activities will be allowed to occur within 150 feet of the River. Areas not actively mined will be maintained in their present condition. At such time as the operation nears completion, the mine will be reclaimed in accordance with a reclamation plan required and approved through the Department of Geology and Mineral Industries.

The active face of the mine is approximately 1500 feet from the highway. The expansion will move the face even further from the highway, ultimately making it less visible. There is a partially treed screen between the existing site and the highway.

The impact of the loss of timber resources is minimal because only a small amount of timber resource exists in this 8.62 acres.

This area lies within the Peripheral Big Game Range classification of the county's comprehensive plan. The number of elk estimated within a four square mile area surrounding the site is on the order of a couple of hundred animals.

The site contains no significant natural, scenic or scientific areas. No hazard to the stability of adjacent lands has been experienced.

Energy consequences:

The Johnson site is near the center of its market area. Other zoned quarries are some distance from the market area. The Johnson site enjoys an energy benefit in that additional fuel need not be spent to transport aggregate material. The energy costs of operating a quarry are the same no matter what the location might be. The expansion of the Johnson site will not result in negative energy consequences.

Conflicting resources that exist on this property include:

1. Protection of the Necanicum River, including its fish resource.

   Setbacks of a minimum of 150 feet from the river will occur to protect this resource. Riparian vegetation will be protected adjoining the river. Run off is controlled through the use of sediment ponds which are in place on the property.

2. Wildlife (Elk) habitat.

   No barriers will be constructed to prevent wildlife migration. Elk will be able to migrate and take advantage of the adjoining forest lands.

3. Noise and visibility.

   Extraction operations on the site are limited to the hours of 7:00 a.m. through 10:00 p.m. Setbacks also help

to mitigate noise and visibility factors.

The economic, social, environmental, and energy consequences of expanding the site can be mitigated and are far less significant than having to locate at another site and in moving the operation

Staff:
The proposed use is a continuation of the use existing at the site. The expansion is eastward and away from conflicting uses (dwellings, etc.) located primarily along Hwy 101 south, west and north of the existing site. We did not receive any comments from neighboring property owners, Department of Fish and Wildlife, Department of Transportation, Department of Forestry or the Soil Conservation Service.

Section 5.412(2) The property in the affected area is presently provided with adequate public facilities, services and transportation networks to support the use, or the governing body by condition, requires their provision by condition attached to any approval of the use.

Staff:
The use will use the existing access onto Hwy 101. Should the Commission have other concerns of this nature, Dick Pearson will be available to respond.

III Options
Following is an outline that reflects potential actions the Planning Commission can undertake. The outline is not intended to address every issue but rather to serve as a guide upon which the commission can act.

1. Deny the request.

2. Approve the request.

3. Approve the request with conditions.

4. Continue the hearing.

RECORDED
FEB 24 1995
BCC DOC # 95020012
REEL #

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

ORDINANCE NO. 95-1

(AN ORDINANCE AMENDING THE
(CLATSOP COUNTY COMPREHENSIVE
(PLAN/ZONING MAP AND TEXT AS ADOPTED
(BY THE BOARD OF COMMISSIONERS
(ADOPTING CERTAIN FINDINGS WITH
(CONDITIONS AND RESCINDING
(INCONSISTENT PROVISIONS

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the Riekkola QMO Comprehensive Plan and Zoning Map and Text Amendment.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Comprehensive Plan and Zoning Map and Text. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the said Clatsop County Comprehensive Plan/Zoning Map and Land and Water Development and Use Ordinance 80-14 as amended.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Planning Commission

held a public hearing on October 18, 1994. The Board received and considered the Planning Commission's recommendations on this request and held a public hearing on this ordinance pursuant to law on February 8, 1995.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supersede, control and repeal any inconsistent provision of the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effective 30 days following adoption of this Ordinance.

SECTION 7. ADOPTION CLAUSE.

The Board of Commissioners hereby adopts the Riekkola QMO Comprehensive Plan and Zoning Map and Text Amendment with conditions, set forth in Exhibit "A" attached hereto and by reference herein made a part of this ordinance in its entirety.

ADOPTED this 22 day of February, 1995.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By Geoffrey Stone
Geoffrey Stone, Vice Chairman

By Karen Lee
Recording Secretary

Effective Date: _____

APPROVED AS TO FORM: _____
Clatsop County Counsel

EXHIBIT "A"

To: Clatsop County Planning Commission

From: David Carpenter, Senior Planner DC

Applicant: Don Lampi and Riekkola Quarry Inc.

Owner: Riekkola Quarry Inc.

Location: Olney

Legal Description: T7N-R9W-Sec13-TL102
T7N-R8W-Sec18-TL2800

Comp Plan Designation: Conservation Forest Lands

Zoning: Agricultural/Forest-20 (AF-20)

Request: Place a Quarry and Mining Overlay Designation Over the two parcels.

Date: September 27, 1994

I Listed below are the applicable Plan and Ordinance requirements and standards that will be used to review this application.

A. Clatsop County Comprehensive Plan (County-Wide Element)

1. Goal 1
2. Goal 2
3. Goal 3
4. Goal 4
5. Goal 5

B. Lewis and Clark Community Plan

1. Fish and Wildlife Policies

C. Clatsop County Land and Water Development and Use Ordinance 80-14

1. Article I
   Section 1.010-1.050
2. Article II Procedures
   Section 2.140 (Type IV Procedure)
3. Article III Zones
   Section 3.510
4. Article IV Special Districts
   Section 4.400
4. Article V Permit and Issue Determinations
   Section 5.300-5.302

Section 5.700-5.735
5. Article VI Public Deliberations and Hearing
Section 6.118
6. Article X General Provisions
Section 10.110-10.150

D. Standards Document

1. Sections 1-3
2. S4.400-S4.404
3. S4-500-S4.504

E. Statewide Planning Goals and OAR's

1. Goal 1
2. Goal 2
3. Goal 3
4. Goal 4
5. Goal 5
6. Goal 6
8. Goal 12
9. Goal 13
10. OAR 660-05

II Findings

A. Background and Location

Applicant (Background):

The Riekkola Quarry is located on a 45 acre parcel to the south of Highway 202 about 1 mile east of Olney. The quarry is located on Clatsop County Tax Lots 7-9-13 #102 and 7-8-18 #2800. The active quarry area covers about 20 to 30 acres of the overall ownership.

Clatsop County granted conditional use approval for this commercial quarry site in June of 1992. Riekkola holds an active DOGAMI permit for the quarry.

Applicant (Location):

The location of this quarry in the northwest corner of the county immediately adjoining Highway 202 makes it an ideal site for supplying rock to the Astoria/Warrenton area.

Applicant (Purpose):
The purpose of this process is to place the Riekkola Rock Quarry in the recently established Clatsop County Quarry and

Mining Overlay Zoning district. This overlay will provide land use protection for this valuable commercial rock resource.

Applicant (Proposed Mining Activities):

The site is being actively mined under the provisions of State Department of Geology and Mineral Industries permit at this time. The quarry contains a large reserve of excellent quality rock.

Staff:

Archie riekkola has applied for a Quarry and Mining Overlay (QMO) District for his quarry located in Olney. These parcels are on the south side of the north fork of the Klaskanine river which is south of, and parallels, Highway 202. The site is approximately 1 mile east of Olney. The subject parcel is currently zoned Agriculture/Forest-20 (AF-20). This zoning designation would remain. The QMO District would be added to the parcels.

The QMO overlay provides the following purpose statement:

> The purpose and intent of the Quarry and Mining Overlay District (/QMO) is:
>
> (A) To allow the development and use of mineral and aggregate resources;
> (B) To provide uniform standards for extraction and processing of mineral and aggregate resources;
> (C) To balance conflicts between mining operations and new and existing surrounding conflicting uses;
> (D) To ensure the rehabilitation and restoration of mining sites; and
> (E) To protect mineral and aggregate resources for future use consistent with Comprehensive Plan goals and policies and Statewide Planning Goal 5.

The Planning Commission has to determine if the site merits protection as a Goal 5 resource. If the site is found to be "Significant", the site must be protected unless there are enough conflicting uses in proximity to the site such that the site could not be used as a quarry. Also, if there are other Goal 5 sites in the vicinity, the site must be analyzed for its impacts on the other Goal 5 site. Other than Big Game issues, there are no other Goal 5 resources associated with the site.

The site received conditional use approval in 1992. The CUP defined the entire property as being part of the approval. As the entire site is approved for quarry activities, the applicant can only be held to the QMO standards if the

Planning Commission imposes them as conditions of approval.

B. Definitions

CONFLICTING USE -- A use authorized in the underlying zone, which, if allowed, could adversely affect operations at a significant mineral and aggregate resource site, or could be adversely affected by mining or processing activities at a significant site. For purposes of this chapter, another Goal 5 resource located on or adjacent to a significant site may be considered a conflicting use if that resource could be adversely affected by mining or processing at the site.

ESEE ANALYSIS -- The analysis of economic, social, environmental and energy consequences of (a) allowing mining on a significant site, and (b) allowing conflicting uses to displace mining on a significant site. Based on the results of the ESEE analysis, the County may determine a level of protection for the resource, and implement a program to achieve the designated level of protection.

EXTRACTION AREA -- The area within which mineral and aggregate extraction, processing and storage may take place under the provisions of this Chapter (see Appendix A).

IMPACT AREA -- An area determined on a case-by-case basis through the ESEE analysis, within which sensitive uses are limited or regulated (see Appendix A).

SENSITIVE USE -- A conflicting use or structure considered sensitive to dust, odor, vibration and/or noise, such as a residence, school, park or hospital. Industrial, agricultural and forestry activities are not sensitive uses unless the activity includes an accessory residential use.

C. Clatsop County Land and Water Development and Use Ordinance.

Staff:

Following are applicable sections from the QMO zone text followed by applicant and/or staff response.

Section 4.406. Application of Overlay Zone: Any conflicts between the provisions of this Chapter and the provisions of other chapters of this Ordinance, Comprehensive Plan Goals and Policies and the Statewide Planning Goals shall be resolved through the ESEE analysis.

The Quarry and Mining Overlay Zone consists of two distinct areas; the Extraction area and the Impact area.

(A) EXTRACTION AREA. The mineral and aggregate extraction area shall be applied to any site where mining will be permitted and which has been identified as a significant resource area in the Comprehensive Plan Inventory or through the QMO Overlay Zone designation procedure, outlined in Section 5.700. The area may consist of one or more tax lots or portion(s) of single tax lots, and may be applied to contiguous properties under different ownership. The size of the Extraction Area shall be determined by the Goal 5 process, but between any existing Sensitive Use and the extraction area boundary a general distance of 1,000 feet shall be applied. The exact distance may be varied through the planning process.

(B) IMPACT AREA. The mineral and aggregate Impact Area shall be applied to properties or portions of properties adjacent to and immediately surrounding an Extraction Area. The width of the Impact Area shall be determined through the ESEE analysis prior to application of the QMO Overlay Zone, based on the type of mineral or aggregate resource to be extracted as well as physical features of the area which may cause a larger or smaller area to be affected. The minimum width of the impact area shall be 1,000 feet from the Extraction Area boundary unless a reduced distance is justified, based on the ESEE analysis (see example in Appendix A).

Staff:

Following is the applicants ESEE analysis, discussion of conflicting uses, discussion of the impact area and a conclusion by the applicant.

Applicant (ESEE):

The Goal 5 rule (OAR 660-16-005(2)) requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy (ESEE) consequences of the conflicts must be determined. "Both the impacts on the resource site and on the 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."

Past County conditional use approval conditions have required a buffer of 100 feet between the quarry operation and the

North Fork of the Klaskanine River. The buffer along with DEQ water discharge requirements should provide adequate protection for this resource.

There is narrow east-to-west flowing seasonal drainage that passes through the property. There is also a small wetland area in the northeast corner of the site. Clatsop County has not identified either of these areas as significant Goal 5 wetlands or placed any of the site within the Lake and Wetland Overlay zoning district.

The Riekkola quarry site contains a valuable aggregate resource that merits Goal 5 protection. All other Goal 5 resources have been examined and protected by a program of avoidance and use controls.

No Goal 5 conflicts have been identified for this site.

Applicant (Impact Area):

The Goal 5 rule (OAR 660-16-0002) requires identification of an impact area itself. The impact area is an area in which identified conflicting uses may adversely may adversely affect the resource. Although impact area is not defined in either the goals or in the Goal 5 rule, the impact area for a mineral and aggregate resource site must be the area which includes uses which could adversely affect the resource, but also the area including those uses which could be affected by the presence of a significant resource. The attached impact area map shows the boundaries of the Riekkola quarry operations and an impact area that extends 1000 feet beyond the perimeter of this quarry.

Noise, dust, odor and blasting effects typically have the potential to adversely effect surrounding properties in the immediate proximity to a quarrying operation.

The quarry operation utilizes an existing road approach onto a County Road that connects to Highway 202 about 100 feet to the north. This approach provides safe highway access for existing and proposed traffic volumes.

Applicant (Potential Conflicting Uses):

The North Fork of the Klaskanine River adjoins the quarry site to the north and there is one private ownership between the river and Highway 202; there are no structures on this ownership. Existing county operating conditions require buffer protection of 100 feet between the active quarry operations and the river. Existing dwellings on the north side of Highway

202 are located about 1000 feet from the active quarry area. The quarry is partially screened from Highway 202 traffic by a stand of trees along the south bank of the North fork of the Klaskanine River.

Clatsop County owns the property to the adjoining east; this property is utilized as a passive park that provides public fishing access to the North Fork of the Klaskanine River. No conflicts have been identified between these two uses.

The Nevan and Sarri homesites adjoin to the south on designated forest lands. These dwellings are effectively screened by topography and existing vegetation. Existing county operating conditions require a setback of at least 500 feet from these residences. The operations plan calls for the continued southward expansion of the existing quarry face; this excavation plan will allow the rock deposit to act as a noise and visual buffer between these residences and the quarry extraction and processing activities.

An inactive ODOT quarry is located on lands to the adjoining west.

Applicant: (Conclusion)

The closest dwellings to the north are about 1000 feet from the active quarry. This distance reduces potential noise and dust impacts.

No conflicts have been identified with County park recreational uses to the east.

The closest dwellings (Saari/Nevan) to the south are located about 1000 feet from the current active quarry area and 500 feet to the south of the Riekkola south property line. These dwellings are effectively screened from the quarry.

No significant impacts have been identified that would merit additional use restrictions upon quarrying activities on the Riekkola site.

Staff:

The applicant has identified four dwellings in the proposed impact area. The houses to the north are separated from the extraction area by Hwy 202 and buffer associated with the klaskanine. With the setback along the south side of the river, the closest activities that can occur to the Browning and Lonquist dwellings are approximately 200 and 450 feet respectively. These activities are primarily associated with

the access road into the site. The extraction face is a greater distance from these dwellings. The Nevan and Saari dwellings are 800 and 580 feet from the southern Riekkola property line respectively. The current CUP requires that activities not occur closer than 500 feet from dwellings or residentially zoned areas. The QMO requires an analysis of the site on uses within 1000 feet.

There is the potential of 8 more dwellings on land within the Impact Area. All property within the impact area is zoned for resource use. Dwellings in the resource zone require compliance with certain standards before they area permitted. As part of the approval process they would also have to be analyzed for their impact on the quarry.

DOGAMI requires the operator to have a Department of Environmental Quality (DEQ) stormwater runoff permit as part of the operational requirements. The applicants have this approval. This addresses concerns associated with the river and drainage that runs through the site. Oregon Department of Fish and Wildlife (ODFW) and DEQ have been given notice of this request.

County records indicate that there are no water rights located in the Extraction or Impact Areas.

An ODOT quarry is located immediately to the west. The Riekkola access road runs through this property. This quarry is inactive and not identified as a Goal 5 quarry site. The Browning quarry is to the north of the site. Except for the access road, the Browning Quarry is not in the impact area of the Riekkola site.

The site currently accesses through ODOT property onto a county road. Highway 202 is approximately 100 feet north of this access point. ODOT has been given notice.

Section 4.424 Determination of Significance. Only sites deemed significant shall be designated with a QMO. The following criteria shall be used in determining significance:

(A) Significant Aggregate Resources. An aggregate resource shall have at least 250,000 cubic yards of reserve and meet at least two of the following minimum requirements:

(1) Abrasion: Loss of not more than 35% by weight;

(2) Oregon Air Degradation: Loss of not more than 35% by weight;

(3) Sodium Sulphate Soundness: Not more than 17% by weight.

(B) Other mineral resources. Significance of non-aggregate resources shall be determined on a case-by-case basis after consultation with DOGAMI.

Applicant (Quality):

A geologist's report describes the Riekkola rock deposit as a large basaltic dike formation with rock suitable for a variety of construction purposes including aggregate for State Highway projects. The source has been tested and approved for Corps of Engineers riprap use and State Highway Department use. Rock test results are attached.

Applicant (Quantity):

The quantity of the rock source is estimated to be two to three million cubic yards.

Applicant (Conclusion):

This large rock reserve at a strategic location is a unique resource that is of significant economic value to Clatsop County.

The Riekkola quarry is a significant resource by virtue of its location, quality, quantity and established development that should be protected on the inventory of significant Goal 5 resources in the Clatsop County Comprehensive Plan.

Staff:

The applicant states that the site contains 2 to 3 million cubic yard. This amount far exceeds the QMO minimum requirement. The minimum number of cubic yards required is 250,000.

The Laboratory data submitted by the applicant appears to indicate that the material meets the three quality specifications listed in the above standard.

Following is a list of Quarry sites separated into one of three classifications. Currently the site is identified as a site requiring CUP approval. The applicant is requesting that the site be identified as a Significant/Primary site.

Classification of County Mineral and Aggregate Sites*

Primary Sites Requiring QMO Protection

1)	Clatsop County - Clifton	T8N R7W S17	rock
2)	Clatsop County - Big Creek	T8N R7W S29 SW	gravel
3)	Howard Johnson - US 101	T5N R10W S4	rock
4)	Bayview Transit Mix - US 101	T5N R10W NW9 SW4	basalt

Primary Sites Requiring Conditional Use Approval

1)	George Ordway	T5N R10W S14	basalt
2)	Teevin Bros. Logging	T8N R6W S27 NW	rock
3)	Daren Berg, Humbug Rock	T5N R8W S22	rock
4)	M. Nygaard Logging	T7N R9W S31 NE	rock
5)	A. Riekkola	T7N R8W S18	basalt
6)	Tagg	T7N R10W S3	sand
7)	Horecny	T5N R9W S23	rock

Other Sites

1)	Clatsop County (Anderson Rd - Brownsmead)	T8N R7W S2 SW	clay
2)	Howard Johnson	T5N R10W S4 NW	rock
3)	Oregon State Forestry Dept.	T4N R9W S14,23 NW	rock
4)	Oregon State Hwy. Division	T5N R9W S16,17	basalt
5)	Oregon State Hwy. Division	T5N R8W S25 NW	basalt
6)	McClean Logging	T7N R8W S28	basalt

Section 4.414. Development Standards - Extraction Area. A development plan shall be submitted to the County Planning Department for any activity allowed in Section 4.412. The development plan shall provide the necessary documents, permits, and maps to demonstrate compliance with the standards and requirements listed below.

Staff:

As per sections 4.414, 4.416 and 4.418, the applicant for a QMO designation does not need to show compliance with the following standards at this time. As discussed in the Background portion of this report, compliance with these standards is not required of the applicant. However, The QMO policies allow the county to impose conditions as determined necessary. The following operational standards are provided for your information.

(A) Screening and Buffering:

(1) An earthen berm and buffer of existing or planted trees or vegetation shall be maintained to fully screen the view of any mineral and aggregate activity and all related equipment from any public road, public park, or residence within 1,000 feet. Where screening is shown through the ESEE analysis to be unnecessary because of topography or other features of the site, the screening requirements may be waived by the Planning Director.

(2) Sight obscuring fencing or approved barrier type shrubs shall be required to eliminate any safety hazards that use of the site may create. Fencing, if required, shall be sight obscuring and a minimum of 6 feet high.

(B) Access:

(1) All private access roads from mineral and aggregate sites to public roads shall be paved or graveled. If graveled, the access road shall be graded and maintained as needed to minimize dust.

(2) Improvements of fees in lieu of improvements of public roads, County roads and State highways may be required when the Planning Director or hearings body, in consultation with the appropriate road authority, determines that the increased traffic on the roads resulting from the surface mining activity will damage the road sufficiently to warrant off-site improvement. If the fee in lieu of improvements is required, the amount of the fee shall reflect the applicant's pro-rated share of the actual total cost of the capital expenditure of the road construction or reconstruction project necessitated by and benefiting the surface mining operation. Discounts for taxes and fees already paid for such improvements, such as road taxes for vehicles and for property already dedicated or improved, shall be applied.

(3) Any internal road at a mineral and aggregate site within 250 feet of a Sensitive Use shall be paved or graveled, and shall be maintained at all times to reduce noise and dust in accordance with County or DEQ standards specified in the ESEE analysis.

(4) An effective vehicular barrier or gate shall be required at all access points to the site.

(C) Hours of Operation:

(1) Blasting shall be restricted to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. No blasting shall occur on Saturdays, Sundays, or any recognized legal holiday.

(2) Mineral and aggregate extraction, drilling, processing

and equipment operation located within 1,000 feet or as established by the ESEE analysis of any Sensitive Use is restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturday. All other sites are limited to operating hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday. No operation shall occur on Sundays or recognized legal holidays.

(3) An increase in operating time limits shall be granted for all activities except blasting if:

(a) Three are no Sensitive Uses within 1,000 feet of the mining site; or if

(b) There are Sensitive Uses within 1,000 feet, the increased activity will not exceed noise standards established by the County or DEQ; and

(c) The operator shall notify the owners and occupants of all Sensitive Uses within 1,000 feet or the distance established by the ESEE analysis by first class mail which is mailed at least 96 hours prior to the date and approximate time of the activity for which the operator receives an exception.

(4) The operating time limits may be waived in the case of an emergency as determined by the County governing body.

(D) Environmental Standards:

(1) DEQ Standards. Mineral and aggregate extraction, processing and other operations shall conform to all applicable environmental standards of the County and State. Any crusher, asphalt, concrete, ready-mix or other machinery shall submit an approved DEQ permit(s) at the time of development plan application.

(2) DOGAMI Standards. Mineral and aggregate extraction, processing, other operations and site reclamation shall conform to the requirements of the Department of Geology and Mineral Industries (DOGAMI).

(3) Permits Required. Mining shall not commence until all applicable State and Federal permits, if any, are provided to the County.

(E) Equipment Removal:

All surface mining equipment, machinery, vehicles, buildings, man-made debris and other material related to the mineral and aggregate activity shall be removed from the site within 30 days of completion of all mining, processing and reclamation, except for structures which are permitted uses in the underlying zone.

(F) Performance Agreement:

(1) The operator of a mineral and aggregate site shall provide the County with annual notification of DOGAMI permits.

(2) Mineral and aggregate operations shall be insured for $500,000.00 against liability and tort arising from production activities or operations incidental thereto conducted or carried on by virtue of any law, ordinance or condition, and such insurance shall be kept in full force and effect during the period of such operations. A prepaid policy of such insurance which is effective for a period of one year shall be deposited with the County prior to commencing any mineral and aggregate operations. The owner of operator shall annually provide the County with evidence that the policy has been renewed.

(G) Significant Resource Area Protection:

Conflicts between inventoried mineral and aggregate resource sites and significant fish and wildlife habitat, riparian areas and wetlands, and ecologically and scientifically significant natural areas and scenic areas protected by the Clatsop Plains Community Plan or other provision of the County Comprehensive Plan, shall be balanced as determined by the site-specific ESEE analysis.

(H) Site Reclamation:

A reclamation plan shall be submitted concurrently with the development plan required in Section 4.418. The reclamation plan shall include a schedule showing the planned order and sequence of reclamation, shall assure that the site will be restored or rehabilitated for the land uses specified in the underlying zone consistent with the site specific Goal 5 program, and shall meet DOGAMI requirements.

(I) Water Management:

(1) Surface water shall be managed in a manner which meets all applicable DEQ, DOGAMI, and ODFW water quality standards. Approval may be conditioned upon meeting such standards by a specified date. Discharge across public roads shall be prohibited. Existing natural drainages on the site shall not be changed in a manner which substantially interferes with drainage patterns on adjoining property, or which drains waste materials or waste water onto adjoining property or perennial streams. Where the mineral and aggregate operation abuts a lake, river, or perennial stream, all existing vegetation within 100 feet of the mean high water mark shall be retained unless otherwise authorized in accordance with

the ESEE analysis and the development plan.

(2) All water required for the mineral and aggregate operation, including dust control, landscaping and processing of material, shall be legally available and appropriated for such use. The applicant shall provide written documentation of water rights from the State Department of Water Resources and/or local water district prior to any site operation.

(J) Floodplain:

Any QMO Extraction Area located wholly or in part in a Special Flood Hazard Area as shown on the Federal Insurance Rate Map (FIRM) shall receive approval in accordance with Section 4.000 of this Ordinance prior to any site operation.

Section 4.416. Application Process. Final development plan approval is required prior to the beginning of any mineral and aggregate activity listed in Section 4.412, and before any expansion of a pre-existing or non-conforming site. The applicant shall provide the following at the time of application:

(A) A development plan demonstrating that the development standards required in Section 4.414 can be met, including:

(1) Screening and fencing;
(2) Access;
(3) Hours of operation;
(4) Environmental standards;
(5) Equipment removal;
(6) Performance agreement;
(7) Significant resource area protection;
(8) Site reclamation;
(9) Water management; and
(10) Floodplain.

(B) A map or diagram showing the location and setbacks of all proposed mineral and aggregate activities and operations and the location and distance to all Sensitive Uses within the Impact Area.

Applicant:

A. Screening and Buffering

The Saari and Nevan dwellings to the south are effectively screened by topography and existing vegetation. The dwellings to the north side of Highway 202 are about 1000 feet from the quarry and partially screened by existing vegetation; topography limits

additional screening measures to the north.

B. Access

The existing road approach from the County road Riekkola quarry is gavelled and maintained in good condition. The sole access point is controlled by a locked gate that is closed during periods of inactivity.

C. Hours of Operation

The quarry can be operated within the restrictions established by the ordinance's provisions for hours of operation and these provisions would be an acceptable condition of approval for this site.

D. Environmental Standards

As stated above, the existing quarry use has been established in conformance with required State of Oregon DEQ and DOGAMI permitting requirements. Additional state and federal permits will be obtained as required for future quarrying activities.

E. Equipment Removal

Quarrying equipment and accessory structures will be removed at the time commercial quarry activities are completed at the site.

F. Performance Agreement

Proof of bonding and insurance will be provided to the County as required.

G. Significant Resource Protection

ESEE conflicts have been detailed and addressed above.

H. Site Reclamation

The reclamation plan that has been previously filed with DOGAMI will be followed when this quarry site is closed.

I. Water Management

The existing quarry is operating under the provisions of a DEQ wastewater runoff treatment plan. This plan will be modified in the future as required by the DEQ or as appropriate for any change in operations.

J. Floodplain

The proposed QMO extraction area is entirely outside the County's mapped flood hazard zone.

Staff:

As discussed above, the applicant does not need to comply with these standards unless the county creates conditions of approval that warrant compliance.

Section 4.418. Site Plan Review.

(A) Site plan review is required prior to commencement of mining. Application shall be in the form required by the County, and shall demonstrate compliance with the standards of Section 4.414 and any requirements adopted as part of the Goal 5 process.

(B) Applications for site plan approval of surface mining operations and activities authorized by Section 4.408 in accordance with ORS 215.425 and ORS 1917.195.

(C) The County shall approve, conditionally approve, or deny a site plan based on the ability of the site plan to conform to the standards of Section 4.414 and other requirements adopted as part of the Goal 5 process.

(D) If the County determines that the site plan is substantially different from the proposal approved in the Goal 5 process, the application shall be denied or conditioned to comply with the decision adopted as part of the Goal 5 process, or the applicant may choose to apply for a Comprehensive Plan amendment whereby the original decision reached through the Goal 5 process will be reexamined based on the revised site plan.

Staff:

The applicant has submitted a plan showing the extraction area and the impact area.

C. Clatsop County Comprehensive Plan (County-Wide Elements)

Applicant:

The Land Conservation and Development Commission acknowledged the County's Comprehensive Plan on May 31, 1984. However this plan did not contain provisions to identify and protect valuable Goal 5 aggregate resources. This analysis is part of the County's current efforts to inventory and protect its known aggregate resources. The County finds that this site would not be affected by conflicting uses, including nearby residences or forest lands. This designation is consistent with a determination to preserve the resource in accordance with the Goal 5 administrative rule (OAR 660-16-005(1)). In the event that the County receives a request to rezone properties in the vicinity to a zone that would permit conflicting uses, this overlay designation would protect the site from encroachment. No such rezoning or development has been proposed at this time.

Staff:

Following are applicable Comprehensive Plan Goals and the Policies from these Goals.

Goal 1 Citizen Involvement

Staff:

All applicable Comprehensive Plan and Land and Water Development and Use Ordinance goals and standards were developed with citizen involvement. This hearing addresses the goal requirements for this application.

Goal 2 - Land Use Planning

Conservation Forest Lands:

Forest lands are those lands that are to be retained for the production of wood fiber and other forest uses.*

In land use changes involving a change from Conservation Forest Lands or Rural Agricultural Lands to Rural Lands or Development designations an Exception to the Agricultural Lands or Forest Lands Goals must be taken.*

Staff:

The site is zoned Agriculture/Forest-20 (AF-20). The site has a Comprehensive Plan designation of Conservation Forest Lands. The request does not involve a change in this designation.

Goal 3 - Agricultural Lands

Goal:

To preserve and maintain agricultural lands.

Policies

1. The County shall provide areas for the continued practice of agriculture and permit the establishment of only those new uses which are compatible with agriculture activities.

Staff:

The site currently exists as a quarry site. Approval will allow greater protection of this resource site. The base zone will still permit agriculture as a permitted use.

6. Agricultural land which also meets the criteria for forest land and which is primarily utilized for livestock grazing or forestry in sufficient parcel size, shall be conserved for forest uses.

Staff:
The site is zoned for forest and farm uses. These uses will still be permitted uses

Goal 4 - Forest Lands

Goal:
To conserve forest lands for forest uses.

Policies:

1. Forest lands shall be conserved for forest uses, including the production of trees and the processing of forest products, open space, buffers from noise, visual separation from conflicting uses, watershed protection, wildlife and fisheries habitat, soils protection from wind and water, maintenance of clean air and water, outdoor recreational activities compatible with these uses, and grazing land for livestock.

Staff:
The uses allowed in the AF-20 zone will still be permitted uses after the QMO is placed. Forestry is not considered to be a "Sensitive Use" as defined by the QMO zone text.

14. Roads in forest areas shall be limited to the minimum width necessary for traffic management and safety.

Staff:
The existing road network provides access within the site. New roads should not be required.

17. Expansion of existing non-forest developments and uses in forest zones may be permitted under a Type II procedure only when such expansion is substantially confined to the existing site.

Staff:
Expansion would be processed as a type II procedure.

Goal 5 - Open Space, Scenic and Historic Areas and Natural Resources

Goal: To conserve open space and protect natural and scenic resources.

Staff:
Goal 5 provides the following Goal and Policies intended to address mineral and aggregate resources.

Mineral and Aggregate Resources Goal:

To protect and ensure appropriate use of mineral and aggregate resources of the county, while minimizing any adverse effects of mining and processing upon surrounding land uses.

Policies:

1. The County shall protect significant mineral and aggregate resources consistent with Statewide Planning Goal 5 and the process for complying with the Goal specified in Oregon Administrative Rules Chapter 660, Division 16.

Staff:
The information submitted by the applicant is intended to address the applicable requirements. If the site meets the QMO Quality and Quantity standards, then the site is considered Significant. The QMO provides protection as required by Statewide Goal 5.

2. In making a decision whether to protect a significant mineral or aggregate site from conflicting uses, the County shall recognize that Goal 5 requires the protection of natural resources for future generations, and that the requirements of other applicable Statewide Planning Goals must be considered in any analysis of conflicting uses.

Staff:
An analysis of other applicable statewide goals is found at the end of this report. The conflicting uses found within the Impact Area are identified earlier in the report. At this time, the Planning Commission must analyze the existing conflicting uses against the quarry site and configure the extraction area boundary and impact area boundary accordingly.

3. The County shall maintain an inventory of mineral and

aggregate resources sites. The Comprehensive Plan inventory shall consist of three parts:

a. An inventory of "significant sites" identified through the Goal 5 process as important resources that will be protected from conflicting uses;

b. An inventory of "potential sites" for which sufficient information concerning the location, quality, and quantity of a resource site is not adequate so as to allow the County to make a determination of significance;

c. An inventory of "other sites" for which available information demonstrates that the site is not a significant resource to be protected.

Staff:
This list is included in the staff report. The applicant is requesting the site be listed as a Significant Site.

4. The location of a mineral or aggregate resource shall be identified as the site of a recoverable source of material. A resource site may consist of all or portions of a parcel, and may comprise contiguous parcels in different ownerships. Identification of a resource site need not include mineral and aggregate reserves that are irrevocable committed to other land uses which are incompatible with surface mining.

Staff:
The proposed Extraction Area spans two parcels that are owned by the applicant. A map is included that identifies the two parcels as the extraction area. If approved, the Extraction Area would be considered the location of the protected resource. However, the existing rock face occurs on taxlot 2800. Continued extraction should continue southward.

5. For an aggregate site to be determined significant, the resource must meet Oregon Department of Transportation specifications for concrete aggregate rock. It is the County's policy to protect the highest quality rock for future use.

Staff:
The applicant has submitted laboratory test results of the material at the site. This information submitted indicates that the material meets the QMO quality standards. These

standards are the same as the ODOT specifications.

6. For an aggregate site to be determined significant, the site must possess a minimum of 250K cubic yards of minable reserves. It is the policy of the County to protect a variety of large reserves in order to serve the regional market.

Staff:

This site has a large reserve. The applicant has indicated that 2-3 million cubic yards of material exist at the site. This exceeds the 250,000 minimum requirement.

7. The significance of non-aggregate mineral resources shall be judged on a case-by-case basis, taking into account information concerning the commercial or industrial use of the resource, as well as the relative quality and relative abundance of the resource within at least the County.

Staff:

This site is not a source of "non-aggregate mineral". This policy does not apply.

8. Because material source sites owned or controlled by municipal, County or state government agencies have been acquired for the purpose of maintaining the public road system, and collectively form a network of great importance, the County shall deem such sites presumptively significant. Such sites shall be analyzed along with other significant sites to establish the appropriate level of protection from conflicting uses.

Staff:

This site is privately owned. This policy does not apply to privately owned sites.

9. The County shall recognize existing surface mining operations as significant resources pursuant to Goal 5, and shall allow existing operations to continue for two (2) years without conforming to the performance standards in the zoning ordinance. Expansion beyond the limits of an existing site shall be in accordance with County zoning regulations.

Staff:
This is an "existing surface mining operation". Expansion requires conformance with the QMO performance standards. See the next policy for discussion of "existing operation".

10. The scope of an existing or "grandfathered" aggregate operations shall be established by:

    a. Authorization by a County land use approval; or
    b. The extent of the area disturbed by mining on the effective date of this ordinance; or
    c. The continuous pursuit of a specific mining plan by an operator for not less than five years.

Staff:
As discussed in the Background portion of this report, the site has a 1992 county CUP approval for the quarry. Policy 10 (a) applies for the Riekkola site. Both taxlots are considered to be part of the 1992 CUP approval.

11. In order to maintain the right to continue an existing surface mining operation and bring the County's inventory of mineral and aggregate resources into compliance with Goal 5, an analysis of economic, social, environmental and energy (ESEE) consequences performed for an existing site shall only consider the consequences of potential conflicting uses upon current or future operations, and the consequences of mine expansion on existing or potential conflicting uses.

Staff:
An ESEE analysis is provided that evaluates uses with a 1000' Impact Area surrounding the proposed Extraction Area. This analysis is found earlier in this report.

12. Sites on the "other sites" inventory shall not be protected pursuant to Goal 5.

Staff:
This site is not on the "Other Sites" list.

13. For sites on the "potential sites" inventory, the County shall review available information about mineral and aggregate resources, and if the information is sufficient, determine the site to be significant when one of the following conditions exists:

a. As part of the next scheduled periodic review;
b. When a landowner or operator submits information concerning the potential significance of a resource site and requests a Comprehensive Plan amendment;
c. When resolution of the status of a potential resource is necessary to advance another planning objective.

Staff:

This site is on the "potential sites" list. The owner of the site is seeking QMO designation pursuant to policy 13.b. by submitting laboratory data and addressing the appropriate standards.

14. For each site determined to be significant, the County shall complete the remainder of the Goal 5 process of identifying conflicting uses, analyzing the ESEE consequences of the conflicting use(s), and designating a level of protection from conflicting uses. If the final decision concerning the site is to fully preserve or partially protect the resource from conflicting uses, the site shall be zoned with the Mineral and Aggregate Resources Overlay.

Staff:

The ESEE analysis and the data on the quality of the rock is intended to justify protecting this site and designating it with a QMO. The laboratory data indicates that material qualifies for QMO protection.

15. When analyzing the ESEE consequences of potential conflicts between a significant mineral or aggregate resource and another significant Goal 5 resource, the County shall consider the protection program adopted for the conflicting resource. Conflicts with other natural resources shall not be the basis for mining restrictions unless the County has included the conflicting resource on the inventory of significant Goal 5 resources, and adopted a resource protection program.

Staff:

The only other Goal 5 resource is the "Peripheral Big Game Range" designation on the site. The county has Goal 5 policies for this designation. These policies are addressed later in this report.

16. The County may consider the effects of surface mining operations on public roads and traffic. Consideration

may include review of proposed routes, site distances at access points, roadway width and alignment, and level of service. The County may impose conditions or restrictions directly related to the impact created by surface mining; however, any conditions or restrictions shall not be approval criteria, and shall be applied uniformly to all road users in a manner consistent with the County's transportation plan.

Staff:

Highway 202 is within the Impact Area and serves as the main transportation corridor for all trucks to and from the site. ODOT has been sent notice regarding this request. The Olney Cut-Off road is also within the Impact area. Traffic associated with the site would be a continuation of the existing quarry related traffic.

17. In order to approve surface mining at a site zoned for exclusive farm or forestry use, the County shall find, as part of the ESEE analysis, that the proposed activity will not: (1) force a significant change in, or significantly increase the cost of, accepted farming or forestry practices on surrounding lands, and (2) will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

Staff:

The site is zoned Agriculture/Forest-20 (AF-20). The area proposed for the QMO is currently utilized as a Quarry. Land to the east is zoned OPR and is used as a passive park. Immediately to the north is a parcel situated between the Klaskanine and Highway 202. This parcel is 11.6 acres and zoned for forestry. To the north of Hwy 202 is a quarry and other property in a mixture of forestry and pasture. Parcels to the west and south are zoned F-80 and AF-20 respectively. These parcels are characterized as a mixture of farm and forest land. As of the date of this report, this office has received no comments form adjoining property owners related to the existing quarry and impacts to farm or forest practices on there own parcels.

18. The County shall not independently apply the Mineral and Aggregate Resources Overlay to land within another County, or within a city or its urban growth boundary. The County shall seek to ensure protection of significant sites where the impact area surrounding the resource extends across jurisdictional boundaries through cooperative agreements with another County or a city.

Staff:

This site is entirely within the jurisdiction of Clatsop County.

19. The County shall require increased setbacks, insulation, screening, or similar measures as conditions of approval for any new conflicting use within an impact area surrounding a mineral or aggregate resource site when such measures are deemed necessary to resolve conflicts identified in a site-specific Goal 5 analysis.

Staff:

This is not a request for a conflicting use. This policy is not applicable.

20. The County may establish and impose conditions on operation of a surface mine when deemed necessary as a result of a site-specific Goal 5 analysis. Where such conditions conflict with criteria and standards in the Mineral and Aggregate Resources Overlay, the conditions developed through the Goal 5 analysis shall control.

Staff:

As part of this process, if the Planning Commission feels that specific concerns can only be addressed through the adoption of conditions, such conditions can be imposed.

21. As part of the ESEE analysis and decision on the level of protection to be afforded significant mineral and aggregate resource sites, the County shall determine the appropriate post-mining use of the site.

Staff:

The applicant has not proposes a post-mining use. The County must make this determination as part of the approval. This can include that the site only be used for uses permitted in the underlying zone (AF-20).

22. The County recognizes the jurisdiction of the Department of Geology and Mineral Industries (DOGAMI) for the purpose of the mined land reclamation pursuant to ORS 517.750 to 517.900 and the rules adopted thereunder.

Staff:

The applicant has complied with all applicable DOGAMI

standards for the existing operation.

23. Unless specifically determined on a case-by-case basis, it shall be the policy of the County, pursuant to ORS 517.830(3), that DOGAMI delay its final decision on approval of a reclamation plan and issuance of an operating permit, as those terms are defined by statute and administrative rule, until all issues concerning local land use approval have been adjudicated by the County.

Staff:
This request can be made of DOGAMI. The county has no authority to require DOGAMI to comply.

24. No surface mining or processing activity, as defined by the zoning ordinance, shall commence without land use approval from the County, and approval of a reclamation plan and issuance of an operating permit by DOGAMI.

Staff:
Approval can include a condition that a reclamation plan be developed for the site.

25. Land shall not be rezoned to remove the Mineral and Aggregate Resources Overlay until the mineral or aggregate resource is depleted, and the site has been reclaimed.

Staff:
This is not a request to remove the QMO zone.

Fish and Wildlife Areas and Habitats Policies.

2. To ensure that future development does not unduly conflict with Peripheral Big Game Range, the County shall:

a. require that review and conditional uses in the AF-20 zone be allowed only if they are found to be consistent with the maintenance of big game range;
b. require that review of conditional uses in the AF-20 zone be subject to clustering and siting criteria;
c. submit proposed review and conditional use applications to the Oregon Department of Fish and Wildlife for their comments on consistency with Peripheral Big Game Range

and recommendations on appropriate siting criteria to minimize any conflict; and

d. submit all proposed plan and zone changes of land zoned AF-20 to the Oregon Department of Fish and Wildlife (ODFW) for a determination of possible conflicts with big game habitat requirements. If the Department identifies conflicts, the County will consider recommendations for resolving these conflicts.

Staff:

Policy 2d applies. Notice has been sent to ODFW. As of the date of this report we have not received comment.

4. To protect riparian vegetation along streams and lakes not covered by the Forest Practices Act, the County shall require a setback for non-water dependent uses.

Staff:

All potential structures are required by the Land and Water Development and Use Ordinance to be a minimum of 50 feet from the edge of riparian vegetation. Additionally, one of the QMO policies requires that existing vegetation within 100 of the edge of a perennial stream be protected.

7. The County shall rely on the Division of State Lands' permit process, under the Fill and Removal Law, to insure that proposed stream alterations such as bridges, channelization, or filling do not adversely affect the stream's integrity or its value as fish habitat.

Staff:

The site currently complies with all applicable state requirements.

8. New developments shall not restrict existing public access to rivers, streams, or lakes. New developments are encouraged to provide additional public access to rivers, streams and lakes where such access is consistent with the area's environmental characteristics.

Staff:

The site does not currently provide public access to the a river or stream.

D. Compliance with the Lewis and Clark Community Plan

Fish and Wildlife Policies

1. Clatsop County will cooperate with governmental agencies to conserve and protect identified fish and wildlife habitat.

Staff:
The Peripheral Big Game Range Policies apply on this site. These policies were addressed earlier in the report. The United States Fish and Wildlife Department and Oregon Department of Fish and Wildlife have been notified of this request. We have not received comments from these agencies.

2. Public and private land ownership preserves many habitat areas. There is limited regulatory power to assure that more living communities and animal species do not become rare and endangered in the future. Therefore new development should be designed and constructed so as to:

a. maintain wherever possible a natural, vegetative buffer strip along wetlands and streams,
b. minimize the alteration of land and vegetation, and
c. preserve open space, including agricultural and forest lands.

Staff:

The current CUP requires that a 100' buffer be maintained along the south side of the Klaskanine river. This can be made a condition of approval. A reclamation plan can address the post mining use of the site.

E. Compliance with Statewide Goals

Goal 3:

Staff:
The site is currently zoned AF-20, a mixed farm and forest zone. The site will maintain the AF-20 zoning designation before, during and after mining activities occur.

Goal 4:

Applicant:
Aggregate extraction and processing operations on this site are not expected to conflict with the protection of adjoining

forest lands or forest practices, or other activities necessary and appropriate for management of soil, air, water and fish resources, the provision for recreational opportunities, and agricultural uses. Mining and processing of aggregate and mineral resources are permissible uses of forest lands as specified by Goal 4 administrative rule. No aspects of the quarry's development would force a significant change in, or significantly increase the cost of accepted forest or farming practices on surrounding lands dedicated for resource use. Similarly, no aspects of the proposed operations are expected to significantly increase the fire hazard, the cost of fire suppression, or risks to fire suppression personnel.

Staff:

This site is currently zoned for farm and forest use. The site already has an existing access eliminating the need to reduce the amount of forested land. Mining activities are allowed on forest land pursuant to Goal 4. The activities allowed by the QMO are similar to those that could occur under Goal 4.

Goal 5

Applicant:

The Statewide Planning Goal Number 5, requires in part that "where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal". The goal guideline suggests that "in conjunction with the inventory of mineral and aggregate resources, sites for removal and processing of such resources should be identified and protected".

The Goal 5 rule specifies the requirements and procedures local government must follow to comply with Goal 5. Goal compliance involves six basic steps:

1. Identify a resource's location, quality and quantity;
2. Determine the resource's significance;
3. Identify conflicting uses;
4. Analyze the economic, social, environmental and energy consequences of conflicts;
5. Determine the level of protection for the resource; and,
6. Implement a program to protect significant resources.

The purpose of this process is to complete the Goal 5 analysis and protect the Riekkola quarry and processing site for future

continued use.

Summary of ESEE Analysis

The ESEE analysis demonstrates that the Riekkola quarry site is a significant aggregate resource for Clatsop County that merits protection through the County land use planning process.

Program to Achieve Goal

The Goal 5 rule (OAR 660-16-010) provides: "Based upon the determination of the economic, social, environmental and energy consequences, a jurisdiction must develop a program to achieve the gaol".

The County has adopted policies in the Comprehensive Plan and a zoning overlay zone to protect significant quarry sites. The purpose of this analysis is to demonstrate that the Riekkola quarry site is significant. The attached map illustrates the active quarry site and a 1000 foot impact area surrounding the entire existing and proposed quarry activity area. The underlying zone will continue to be AF-20; the QMO overlay will be added until such time as the subject rock resource is depleted and the site is reclaimed. The quarry will continue to operate under the provisions of approval conditions that were adopted for the site in 1992.

Staff:

Goal 5 is designed to identify, and protect where appropriate, a variety of resources. Rock and mineral resources are a Goal 5 category resource. The request is to recognize this site as a Significant Goal 5 site and provide it with the QMO district protection. The submittals from the applicant and this staff report address compliance with the applicable requirements.

Goal 6:

Applicant:

The environmental effects of the quarry operation have been discussed above. The existing quarry has an active DOGAMI mining permit. Runoff waters from the quarry area are collected and channeled through an existing vegetated outfall area. Current DEQ permitting standards require the monitoring and testing of all runoff discharges. DEQ air quality and

water quality permits will also be required for any rock processing operations.

The quarry is currently operating under the controls of required environmental permits without any identified problems.

Staff:

The site will have to comply with all DEQ and Oregon Department of Fish and Wildlife (ODFW) requirements regarding the drainage and impacts on the river.

Goal 12:

Applicant:

Statewide Planning Goal 12 requires local governments "to provide and encourage a safe, convenient and economic transportation system". The Riekkola quarry is a very important source of aggregate materials for a wide range of City, County, State and Federal street and highway construction and repair projects.

Staff:

The information provided by the applicant indicates that the material will meet QMO quality standards. This is an active site that provides material for a variety of uses including road construction.

Goal 13:

Applicant:

The Riekkola quarry by virtue of its strategic location promotes energy conservation. It is far most efficient to utilize rock from this centrally located source than to import rock form outlying locations within Clatsop County or from areas outside of our County.

Staff:

This is a functioning quarry that currently has a market. The site is located in proximity to the Astoria/Warrenton area and a variety of county roads.

III Options

Following is an outline that reflects potential actions the Planning Commission can undertake. The outline is not intended to address every issue but rather to serve as a guide upon which the commission can act.

1. Deny the request.

2. Approve the request.

3. Approve the request with conditions.

4. Continue the hearing.

Planning Commission Recommendation:

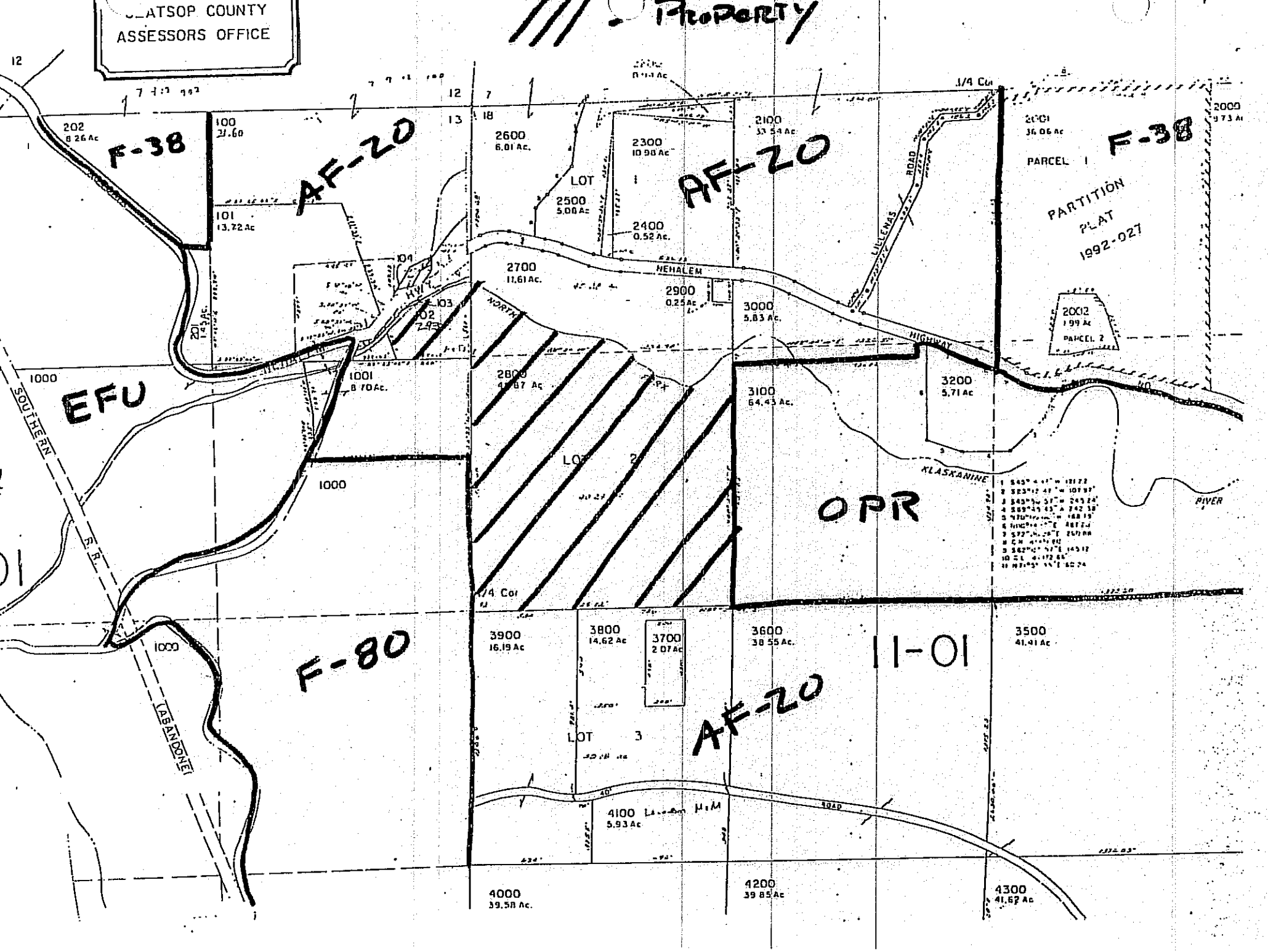
By unanimous motion on 10/18/94, the Clatsop County Planning Commission recommended approval of the Quarry and Mining Overlay zoning designation for the Riekkola quarry site and the designation of this site as a Significant Goal 5 rock resource site based upon staff report findings and the following conditions of approval:

1. The applicant shall contact DEQ to determine whether a storm water runoff permit is required; if such a permit is required, the applicant shall file for this permit by January 1, 1995.

2. The Extraction and Impact Areas shall be configured as they are represented in the staff report.

3. A buffer of 100 feet of existing vegetation shall be maintained from the south bank of the Klaskanine river. Other than access, quarry operations shall not encroach upon this buffer.

4. The post mining use of the site shall be a use that is permitted in the underlying zone.


CLATSOP COUNTY
ASSESSORS OFFICE
PROPERTY
F-38
AF-20
EFU
F-80
OPR
11-01
PARCEL 1
PARTITION
PLAT
1992-027
PARCEL 2
NEHALEM
HIGHWAY
KLASKANINE
ROAD
SOUTHERN
R.R.
ABANDONED
1/4 Cor
LOT 1
LOT 2
LOT 3
100
101
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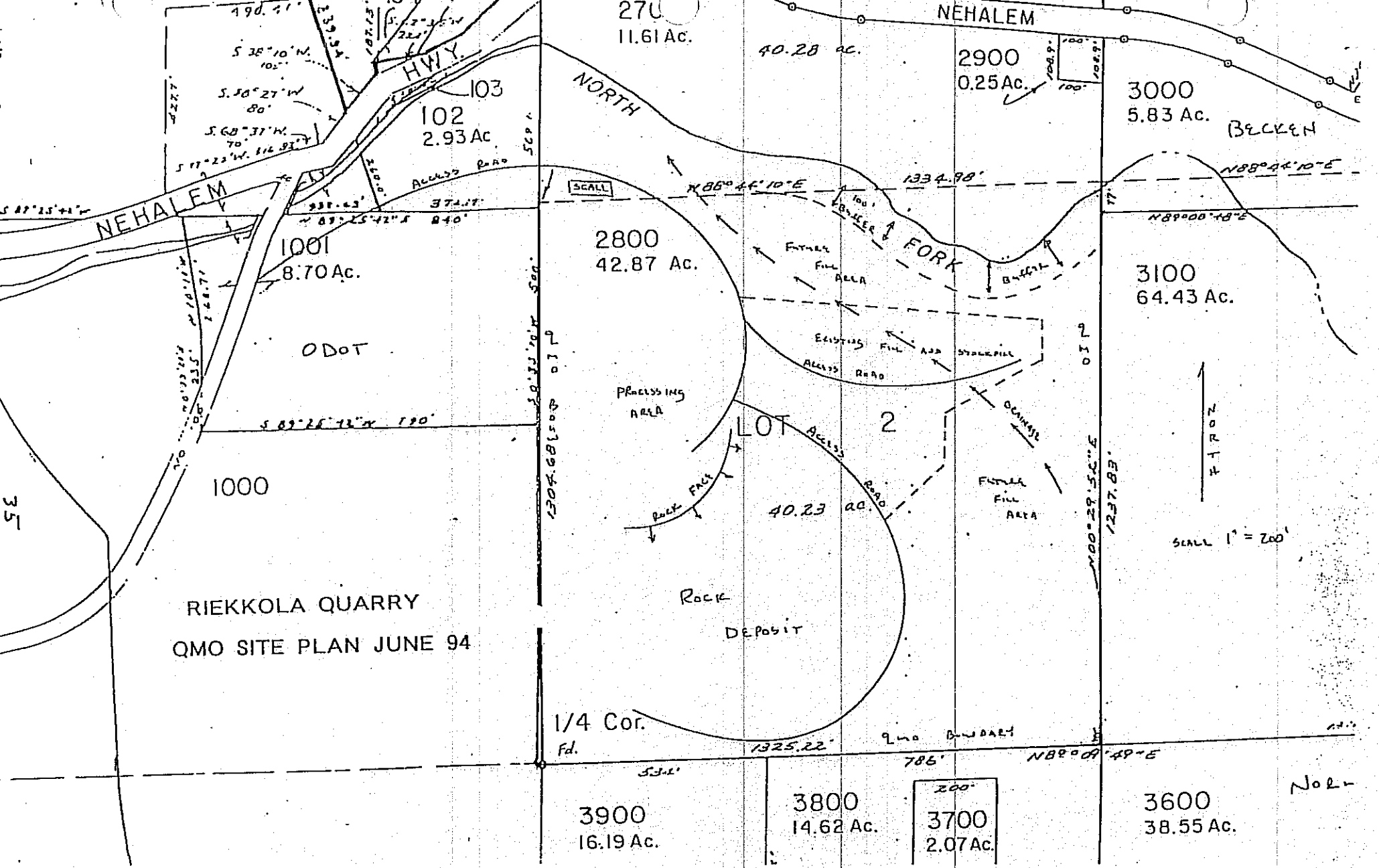
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HWY.
103
102
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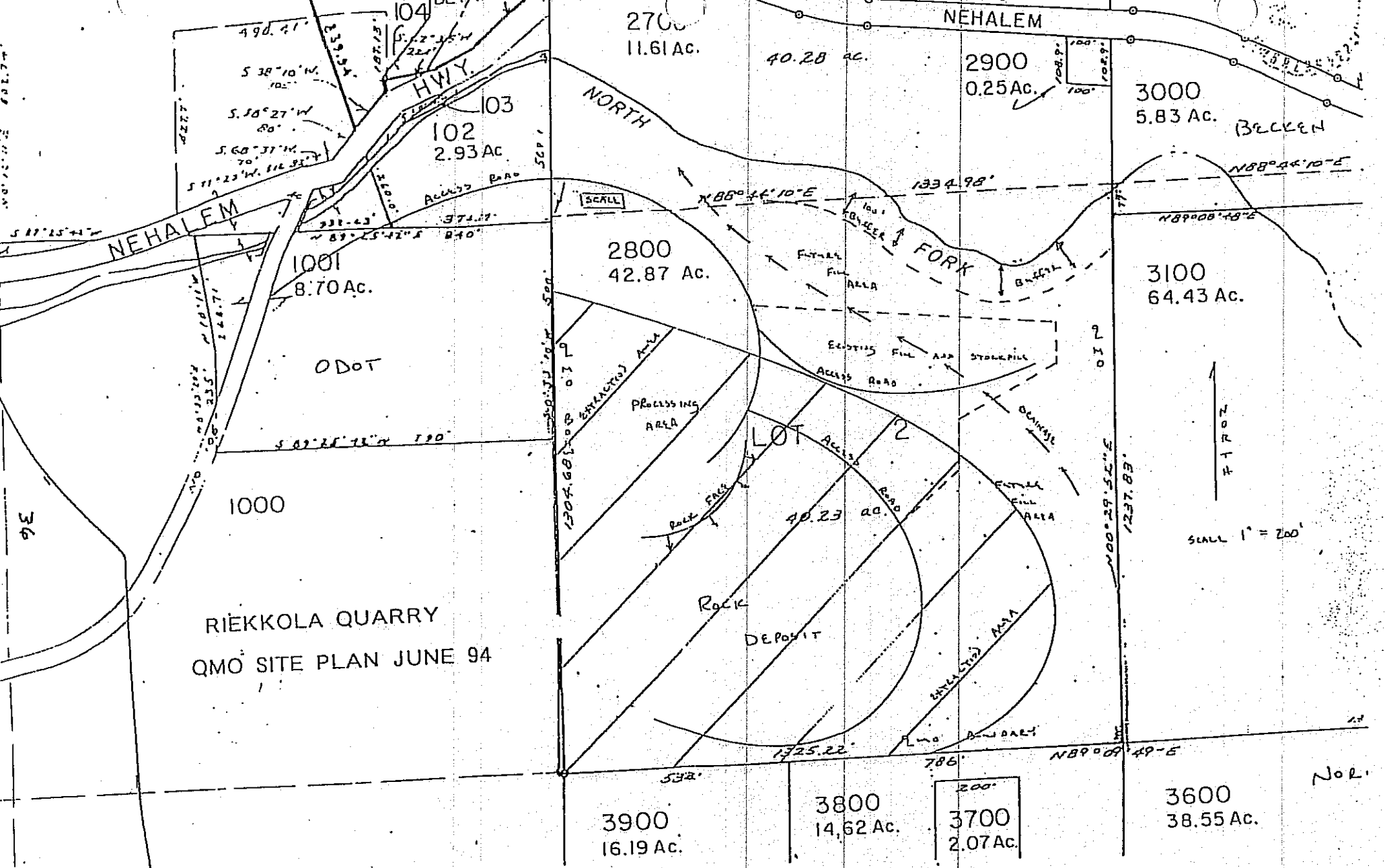
NORTH
NEHALEM
1001
8.70 Ac.
ODOT
1000
2800
42.87 Ac.
2700
11.61 Ac.
40.28 ac.
2900
0.25 Ac.
3000
5.83 Ac.
BECKEN
FORK
3100
64.43 Ac.
PROCESSING AREA
LOT 2
40.23 ac.
ROCK FACE
ROCK DEPOSIT
RIEKKOLA QUARRY
QMO SITE PLAN JUNE 94
1/4 Cor.
Fd.
3900
16.19 Ac.
3800
14.62 Ac.
3700
2.07 Ac.
3600
38.55 Ac.
SCALE 1" = 200'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ODOT
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BECKEN
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3100
64.43 Ac.
LOT 2
40.23 ac.
ROCK DEPOSIT
PROCESSING AREA
ACCESS ROAD
EXISTING FILL AREA
STOCKPILE
DRAINAGE
RIEKKOLA QUARRY
QMO SITE PLAN JUNE 94
SCALE 1" = 200'
NORTH
3900
16.19 Ac.
3800
14.62 Ac.
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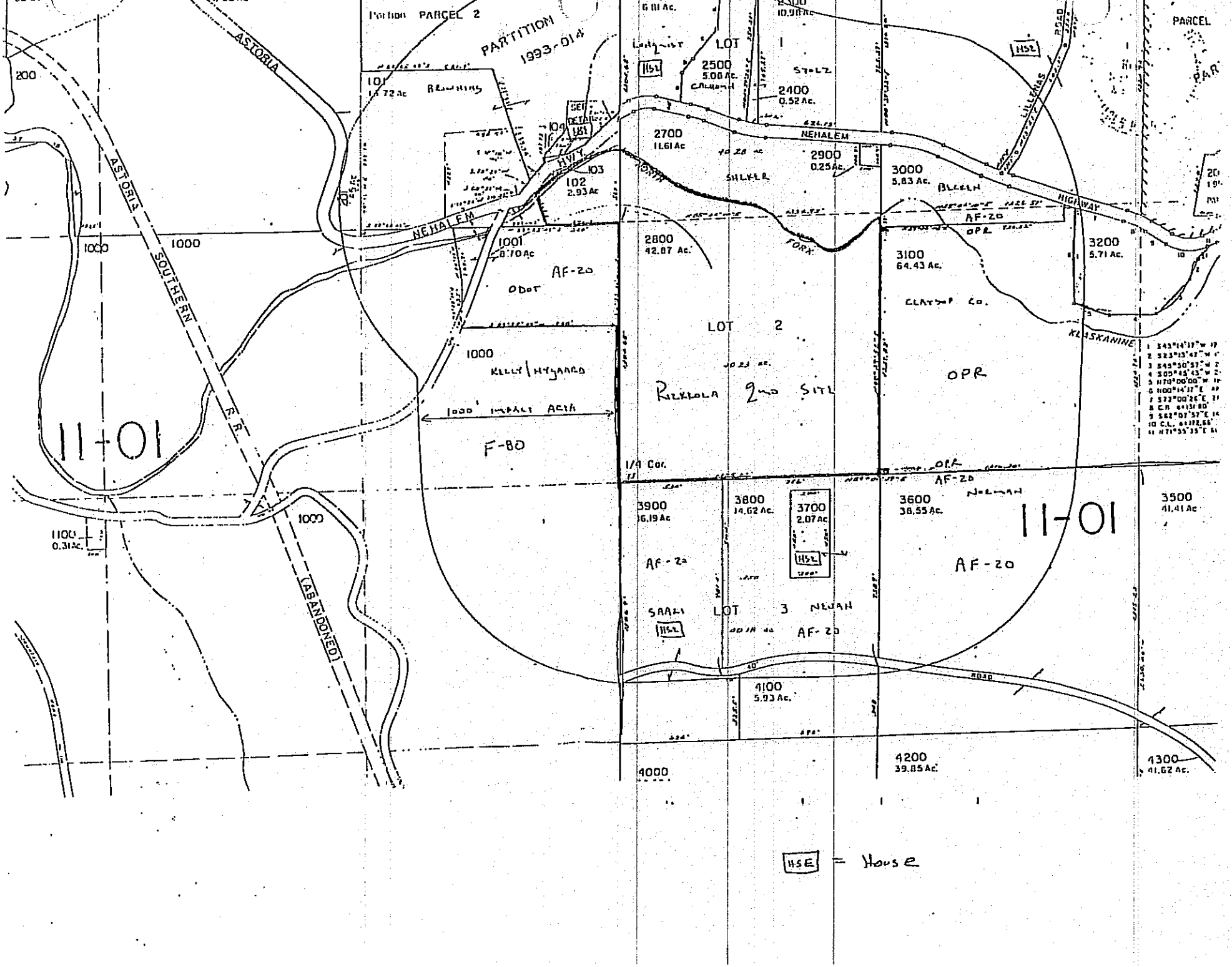
3600
38.55 Ac.


PARTITION 1993-01A
PARCEL 2
ASTORIA
SOUTHERN P.R.
ABANDONED
NEHALEM
HWY
SILVER
FORK
NEHALEM HIGHWAY
CLATSOP CO.
KLASKANINE
ROAD
LOT 1
LOT 2
LOT 3
NELMAN
OPR
AF-20
F-80
11-01
1000
1001
1100
2500
2400
2700
2900
3000
3100
3200
3600
3700
3800
3900
4000
4100
4200
4300
3500
HSE = House

June 24, 1994

HAND DELIVERED

Dave Carpenter
Department of Planning Development
Clatsop County
Post Office Box 179
Astoria, Oregon 97103

Re: QMO Submittals

Dear Dave:

As you requested, I have revised the "Impact Area Maps" and "QMO Site Plans" for the Nygaard-Olney, Riekkola and Nygaard-Lewis & Clark QMO sites to include (1) existing zoning, (2) "extraction areas" and (3) approximate locations of dwellings within the 1000 foot impact area. The revised maps are attached. You may wish to attach copies of your counter zoning maps to improve the presentation clarity of the zoning district boundaries at these sites.

As we discussed, these three quarry sites should also be added to the County's list of "Significant Sites" as part of your scheduled Quarry and Overlay Zoning amendment process. All three sites have rock deposits which satisfy the quantity and quality standards of Section 4.424.

Please advise when you establish public hearing dates for the QMO review process. I would appreciate if you would place my name on the mailing list for these public notices and also forward copies of notices to the owners of these individual quarry sites.

Please advise if you have further questions.

Sincerely,

Don Lampi

Don Lampi
Land Use Consultant
1441 South Main Street
Warrenton, OR 97146
(503) 861-2420

July 18, 1994

Dave Carpenter
Department of Planning and Development
Clatsop County
Post Office Box 179
Astoria, Oregon 97146

Re: Quarry & Mining Overlay Public Hearings

This letter is intended to be a follow-up upon our counter discussion of this morning. It is my understanding that your tentative Planning Commission public hearing schedule includes QMO public hearings on September 6, 1994 for the Nygaard-Olney quarry and the Riekkola-Olney quarry. I also understand that the Nygaard-Lewis & Clark quarry QMO public hearing will be scheduled for the next available Planning Commission date after 9/6/94.

All three of these rock quarry sites meet the minimum ordinance quantity and quality standards listed in Section 4.424 of the Land and Water Development and Use Ordinance for recognition as "Primary Sites Requiring QMO Protection". Please reference in your public notices for these upcoming Planning Commission and Board of Commissioners public hearings that the ongoing QMO review process will provide for each of these three rock quarry sites to be added to Clatsop County's Goal 5 list of "Primary Sites Requiring QMO Protection".

Please insert the following supplemental information upon rock quality testing into the file for the Nygaard-Lewis & Clark quarry:

> May 24, 1994 rock test results from the laboratories of Braun Intertec Northwest, Inc. document that the rock samples from the Nygaard-Lewis & Clark quarry satisfy the zoning ordinance QMO zone Section 4.424 quality standards. Section 4.424 requires that an aggregate resource meet at least two of the three listed quality test standards (Abrasion, Oregon Air Degradation and Sodium Sulphate Soundness). Test results show an abrasion loss of 19.8% compared to the maximum ordinance standard of 35% (L.A. Abrasion test; AASHTO T-96). Test results show a sodium soundness loss result of 15.4% compared to the maximum ordinance standard of 17% (Sodium Soundness; AASHTO T-104). Test results show an air degradation loss of 36% compared to a maximum ordinance standard of 35% (Oregon Air Degradation; OSHD-208). This 1% difference is

attributed to "iron scaling" that typically occurs on surface rock that has been exposed to the atmosphere for a prolonged period of time; Braun Intertec lab personnel suggested that this test result would likely improve as deeper, subsurface rock was removed.

Thank you for your assistance in the Goal 5 QMO site protection process. Please contact me if you would like to discuss these three quarry sites in further detail or if you would like to schedule a staff site visit at the time you are preparing your staff reports for the upcoming QMO hearings.

Sincerely,

Don Lampi

Don Lampi
Land Use Consultant
1441 South Main Street
Warrenton, OR 97146
(503) 861-2420

SAMPLE DATA and LABORATORY TEST REPORT

☒ AGGREGATE (CRUSHED) ☐ BITUMINOUS MIXTURE

LABORATORY REPORT NO. 920788
DATA SHEET NO. AB 45464

PROJECT: WARRENTON - ASTORIA
HWY: OR: COAST, FLORAL COR. COUNTY: CLATSOP
CONTRACTOR: KIEWIT PACIFIC
PROJECT MANAGER: A.T. FALLS AGY. ORG UNIT: 02-9034
SUBMITTED BY: ROD HAINLEY AGY.-ORG. UNIT: 02-8034

EXP. ACCT./SUB JOB: C1162
F.A. PROJECT NO.: NHF-2-8(15) F-17(49)
BID ITEM NO.: 22, 23, 25, 26, 27
DATE RECEIVED: 4-28-92
DATE REPORTED: 05-15-92
LAB CHARGES: $920.00

SAMPLE NO.: 1
NO. OF BOXES:
NO. OF BAGS: 4
QUANTITY REPRESENTED (YARDS, TONS, ETC.): ALL
☐ MIX DESIGN ☐ RECORD ☒ QUALITY ☐ CHECK

AGGREGATE SIZE:
BRAND & GRADE ASPHALT:
TYPE MIX:
MIX DESIGN NO.

INTENDED USE: BASE, SHLD, & A.C
SOURCE NO.: 4-030-2 PIT
QUARRY ☒ GRAVEL ☐

SOURCE NAME OR LOCATION: KIEKKOLA QUARRY
UNIV 105, M.P. 11.0 ±
SEC. 19, T. 7N., R. 8 W.W.M.
SAMPLED AT: QUARRY
DATE SAMPLED: 4/27/92

REMARKS, INSTRUCTIONS:
ALL REQUIRED TESTS FOR AGG.
BASE, SHOULDER, & A.G. QUALIFYING

FIELD CONTROL TEST NO.
☐ TM 204 ☐ TM 205

		SIEVE SIZE	PERCENT PASSING
10/¼	%		
40/10	%		
200/10	%		
FRACTURE	%		
PI			
LL			
S.E.			
MOISTURE	%		
RETENTION	%		
EXTRACTED A/C	%		
TOTAL A/C	%		

CHECK "BOX" FOR TEST REQUIRED: USE SEPARATE DATA SHEET FOR EACH SAMPLE. LIST ADDITIONAL PROJECTS SEPARATELY.

☐ TM 204 DRY SIEVE
☐ TM 205 WET SIEVE
☐ TM 309 EXTRAC.

SIEVE SIZE	PERCENT PASSING	PERCENT PASSING

TM 205 P200
¼ % 200/10 %
10 %
ENESS FACTOR
¾, ⅜, 4, 8, 16, 30, 50, 100
ISTURE %
TRACTED A/C %
TENTION %
TAL ASPHALT %
S
A

☒ TM 101A MFG S.E. 65
☒ TM 102 FAA L.L. NP
☒ TM 103 FAA P.I. NP
☐ TM 201 UNIT WEIGHT
LOOSE COMPACT
COMBINE % THIS LAB NO. WITH %
OF LAB NO. COMBINED

☒ TM 202 FINE BULK GRAVITY
BULK 2.71 SSD 2.77
APP. 2.90 ABS. 2.46

☒ TM 203 COARSE BULK GRAVITY
BULK 2.83 SSD 2.85
APP. 2.89 ABS. 0.78

7 ☒ TM 206 SODIUM SULFATE LOSS
2½-1½ % 1½-¾ %
RIP RAP AVERAGE %
C.A. 1.0 1½-¾ 0.3 % ¾-⅜ 0.3 %
⅜-4 2.3 %
F.A. 1.6 4-8 0.9 % 8-16 0.9 %
16-30 0.9 % 30-50 3.8 %

☒ TM 208A 2 COARSE DEGRADE
HT. 0.3 IN P20 10.3 %
REF HT. IN P20 %

☒ TM 208B 2 FINE DEGRADE
HT. 0.3 IN P20 10.3 %

☐ TM 209 ASPHALT STRIPPING
BRAND & GRADE
COATED %

☒ TM 211 ABRASION
GRADING A WEAR 14.3%

☐ TM 212 ORGANIC PLATE NO.
☐ TM 213 FRACTURE %
4 ☒ TM 221 FRIABLE PARTICLES
WEIGHTED AVG. — %
1½-¾ 0.2% ¾-⅜ 0.3 %
⅜-4 0.2% 4-16 0.3 %

2 ☒ TM 222 LIGHTWEIGHT PIECES
C.A. 0.0 % F.A. 0.0 %

☐ TM 225 WOODWASTE %
☐ TM 227 CLEANNESS CV
☐ TM 228 DMSO
C.A. % 1½-¾ % ¾-⅜ %
⅜-4 %
F.A. % 4-8 % 4-16 %
16-30 % 30-50 %

☐ TM 229 ELONGATED PIECES %
☒ TM 235

MATERIAL REPRESENTED BY THIS SAMPLE ☐ DOES ☐ DOES NOT COMPLY WITH SPECIFICATIONS.
LAB COMMENTS
Source Currently Approved

RAS 2
TOM FALLS
KIEWIT PACIFIC

ENGINEER OF MATERIALS

INSTRUCTION: FORWARD WHITE ORIGINAL TO MATERIALS LABORATORY SALEM, CANARY TO PROJECT MANAGER, ORIGINATOR RETAIN PINK

(5-86)

DEPARTMENT OF THE ARMY
NORTH PACIFIC DIVISION MATERIALS LABORATORY
CORPS OF ENGINEERS

1491 N. W. GRAHAM AVE.
TROUTDALE, OREGON 97060-9503

ATTN: NPPCO-PC

8 October 1985

W.O. 85-C-837

Subject: Report of Tests on Quarry Stone

Project: TANSY RAILROAD LOCATION
Intended Use: Riprap
Source of Material: Olney Quarry, NPDL No. 2851
Submitted by: NPPCO-PC
Date Sampled: ---
Date Received: 3 Sep 85
Method of Test or Specification: CRD & NPDL
Reference: Your DA Form 2544 Order No. E86850215 dated 4 Sep 85.

1. Following are results to date of quality tests on stone from the above quarry; revised to include Soundness by wetting and drying test results.

Test	Results
Specific Gravity, BSSD	2.86
Absorption, percent	0.8
Unit Weight, lbs/cu ft	178.5
Los Angeles Abrasion	
% loss @ 100 rev	2.2
% loss @ 500 rev	8.4
Accelerated Freeze-Thaw	
% loss @ 100 cycles, by weight	0.4
Accelerated Expansion by Immersion in Ethylene Glycol	
Visual Inspection - 15 day	No Action
% loss by weight	0.0
Soundness by Wetting & Drying	
% loss by weight @ 100 cycles	0.2
Soundness Loss (5 cycles $MgSO_4$)	
% loss by weight	0.5

2. This completes all work requested.

JAMES PAXTON,
Director

PAXTON

HINDS

CF: NPDEN-GS&M
W.O.85-C-837
Concrete Branch
Reading File

INFORMATION RECEIVED

NOT ADDRESSED IN THE STAFF REPORT

August 18, 1994

To: Parties of Interest

From: Dave Carpenter, Senior Planner.
Clatsop County Department of Planning and Development

Re: Nygaard and Riekkola QMO requests

The above requests are now scheduled for a hearing before the Clatsop County Planning Commission for Tuesday, September 6, 1994. As the Planning Commission has continued two items from its August 16, 1994 hearing to the September 6, 1994 hearing, there will not be time to address all of the scheduled hearing items on September , 1994. As such, this department is asking the Planning Commission to continue the QMO items to a future hearing date.

Please be advised that the County Planning Commission will consider the continuance request on September 6, 1994. Should they decide to continue the items, no public hearing will be held on September 6, 1994. I cannot advise you as to how the Planning Commission will vote on the request. If continued, the Planning Commission will schedule a new date for these hearings. They will address this request at 11:00 a.m. on September 6, 1994

If you have any further questions, please feel free to contact this office, 325-8611.

Please note ——————

Why this and another letter was sent me. Neither states the purpose. Absolutely not in laymens language! Nygaard and Riekola were sure I'd been familiar with. Their transactions do not concern me.

Mrs Olson.

RECORDED
FEB 24 1995
DOC # 95020013 Q.
FEE #

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

ORDINANCE NO. 95-2

(AN ORDINANCE AMENDING THE
(CLATSOP COUNTY COMPREHENSIVE
(PLAN/ZONING MAP AND TEXT AS ADOPTED
(BY THE BOARD OF COMMISSIONERS
(ADOPTING CERTAIN FINDINGS WITH
(CONDITIONS AND RESCINDING
(INCONSISTENT PROVISIONS

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the Clifton Rock Pit QMO Comprehensive Plan and Zoning Map and Text Amendment.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Comprehensive Plan and Zoning Map and Text. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the said Clatsop County Comprehensive Plan/Zoning Map and Text.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Planning Commission

held a public hearing on May 3, 1994. The Board received and considered the Planning Commission's recommendations on this request and held a public hearing on this ordinance pursuant to law on February 8, 1995.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supersede, control and repeal any inconsistent provision of the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effective 30 days following adoption of this Ordinance.

SECTION 7. ADOPTION CLAUSE.

The Board of Commissioners hereby adopts the Clifton QMO Comprehensive Plan and Zoning Map and Text Amendment with conditions, set forth in Exhibit "A" attached hereto and by reference herein made a part of this ordinance in its entirety.

ADOPTED this 22 day of January, 1995.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By Geoffrey L Stone
Geoffrey Stone, Vice Chair

By Judith Cantine
Recording Secretary

Effective Date: _____

APPROVED AS TO FORM: _____
Clatsop County Counsel

EXHIBIT "A"

Clatsop County Clifton Rock Pit
Goal 5 Analysis

BACKGROUND

The Clifton rock pit is located in the northeast corner of Clatsop County on Clifton Road, approximately one-half mile north of U.S. Highway 30. The purpose of the pit is to provide base rock for County roads and dikes in the Northeast area of the county. The property which the County owns consists of approximately 20 acres of land on the west side of Clifton Road. The active pit itself occupies approximately one acre of land. The County has operated this pit since the 1950s as a non-commercial quarry. The pit has provided rock for most of the County roads in the northeast quarter of the County, including the Knappa-Svensen, Brownsmead, and Westport areas. It is estimated that the quarry has produced approximately 20,000 cubic yards of material since being in County ownership. However, it has not been actively mined in the last ten years.

PURPOSE:

The County maintains a number of quarries in order to supply rock for the construction and maintenance of its road system. While virtually all of the 40,000 cubic yards of gravel used by the County is supplied by commercial quarries, the material in the County-owned quarries is used primarily for base rock, fill and other purposes. The County does not maintain its own gravel processing facilities or asphalt plant for surfacing materials. Rather, it relies on private contractors, who are located in the Seaside area. From time to time the County may contract with an operator who will crush the material for future use by the County or its contractors. County-owned aggregate sites provide a source of material which lowers the cost of transportation and saves tax revenues.

CLATSOP COUNTY COMPREHENSIVE PLAN:

The Land Conservation and Development Commission acknowledged the County's Comprehensive Plan on May 31, 1984. However, no mention of the Clifton rock pit was included to be included in the Goal 5 portion of the Plan. This analysis is intended to be included in the Comprehensive Plan, and to establish the Clifton pit as a priority site. The County finds that the site would not be affected by conflicting uses, including a nearby non-forest residence (over 1,000 ft. from proposed extaction area) on forest lands. This designation is consistent with a determination to preserve the resource in accordance with the Goal 5 administrative rule (OAR 660-16-005(1)). In the event that the County receives a request to rezone properties in the vicinity to a zone that would permit conflicting uses, this overlay designation would protect the site from encroachment. No such rezoning or development is proposed.

ESCRIPTION OF PROPOSED MINING ACTIVITIES

Clatsop County Road Department will develop the site over an extended period of time. No commercial activities are proposed. The use of the site (see maps 1 and 2) will be intermittent, and will be dependent on the County's demand for rock. It is estimated that 300,000 cubic yards of rock are readily available on the site which would be extracted over a twenty to thirty year period. Full use of the site for extraction could take several decades. The use of the site for stockpiling materials from other locations, such as gravel and sand, is also planned.

The extraction method proposed for the site is benching. Because of the nature of the rock, Columbia River Basalt, controlled blasting will be performed on occasion. The County will require that all trees and other vegetation remain undisturbed in locations not necessary for mining operations. The County will ensure that the site is reclaimed in accordance with state regulations administered by DOGAMI.

COMPLIANCE WITH STATEWIDE PLANNING GOAL 5

The Statewide Planning Goal Number 5, requires in part that "where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal."

he goal guideline suggests that "in conjunction with the inventory of mineral and aggregate resources, sites for removal and processing of such resources should be identified and protected."

The Goal 5 rule specifies the requirements and procedures local government must follow to comply with Goal 5. Goal compliance involves six basic steps:

1. Identify a resource's location, quality and quantity;
2. Determine the resource's significance;
3. Identify conflicting uses;
4. Analyze the economic, social, environmental and energy consequences of conflicts;
5. Determine the level of protection for the resource;
6. Implement a program to protect significant resources.

The purpose of this process (and this report) is to complete the Goal 5 process and protect the Clifton site for future use by the Clatsop County Department of Public Works. It is recognized that future development in the vicinity of the Clifton pit may be in conflict with future development in the vicinity of the site.

REQUIREMENT OF THE GOAL 5 ADMINISTRATIVE RULE

Location

As described above, the Clatsop County property consists of 20 acres located on Clifton Road, approximately one half mile north of U.S. Highway 30 at T8N R6W Section 17 Tax Lot 1700. All but the northern 1,000 feet plus of the property (about 15 acres) would be eligible for mining. The impact area includes Tax Lots 702 and 703. Tax Lot 1800, outside of the impact area, is owned by a private party, Charles Collins, and consists of 9.37 acres. The other two parcels are owned by Hanson Resources, a timber company, and totals about 1,860 acres. The zoning designation for the area if Forest 80 (F-80). Protection of the site will include the approximately 15 acres within the extraction area of the Clatsop County parcel, although it is unlikely that the entire site will be mined.

Quality

A Mohr's hardness test was performed on Clifton pit samples. It was observed that the majority of the sample is a partiallly metamorphosed dirty sandstone with a hardness greater than 5.5 and less than 6.0. This rock is black in color, medium to fine grained, and penetrated deeply by iron weathering. It has been used to good effect on many County roads in the northeast area of the County in the last thirty or forty years. If the material were to be used for asphalt or concrete, tests would be performed specifically for that purpose.

Quantity

The estimated 300,000 cubic yards in this pit qualifies it as a medium size quarry in Clatsop County. This estimated is based on visual examination of the site and aerial photos by County staff, but no geologic investigation has been carried out.

Conclusion

The large amount of basalt in this location makes the Clifton pit a unique resource. It is the only significant, publicly owned pit in the northeastern corner of the County, and is immediately adjacent to U.S. Highway 30 and several County roads. Its lack of surrounding development means minimal conflicts in the future.

The Clifton quarry is a significant resource by virtue of its location, quality and quantity, and should be retained on the inventory of significant Goal 5 resources in the Clatsop County Comprehensive Plan.

Conflicting Uses

Identifying conflicting uses to a significant resource site requires two principal steps: 1) designating and justifying an impact area surrounding the resource, and 2) determining conflicting uses allowed by

+he Zoning Ordinance, and identifying conflicts with other significant ɔal 5 resources.

Impact Area

The Goal 5 rule (OAR 660-16-0002) requires identification of an impact area surrounding the resource site if different from the resource site itself. The impact area is the area in which identified conflicting uses may adversely affect the resource. Although impact area is not defined in either the goals or in the Goal 5 rule, the impact area for a mineral and aggregate resource site must be the area which includes uses which could adversely affect the resource, but also the area including those uses which could be affected by the presence of a significant resource.

Noise, dust, odor and blasting effects may adversely affect surrounding land uses. Conversely, the complaints expressed by surrounding property owners about these effects, as well as complaints about traffic and the effects to visual quality influence whether, or how, a resource may be mined. At the present time there no conflicting use in the 1,000 ft. impact area of the quarry. However, the purpose of the designation of the overlay zone is to anticipate future rezoning or other incompatible use of the property. There are twenty-one uses permitted in the F-80 zone, including forest and non-forest related dwellings, and it is impossible to determine with certainty whether a parcel will be used for a particular use.

he Clifton quarry is not visible from U.S. Highway 30 or Bradley State Park Wayside. It is visible from Clifton Road. The quarry is not visible from the single residence or other non-forest use. Traffic is not a problem because of the proximity of U.S. Highway 30 and the infrequent use of the quarry. Clifton Road is a collector road, and services a small number of residences on the Columbia River, in addition to a future industrial site at Bradwood, a prime deepwater port site on the Columbia River. More frequent use of the site, even on a daily basis, is not anticipated to impact any other users of the road.

Potential Conflicting Uses

All of the property surrounding the Clifton quarry is zoned F-80, the County's prime forest production zone. It is intended "to provide for large-scale commercial forest management where parcel size and ownership patterns are adequate to support such activities." In addition to forestry uses, this zone also permits forest related residences and offices, grazing, aquaculture, watershed management, and home occupations.

The 9.37 acre Clatsop Resources, Inc. property, also known as the Collins property (Taxlot 1800), is a small, pre-existing residential use which has the potential of being in conflict with extensive use of the County property. However, this property is at the extreme north end of he quarry or storage operation, and is over 1,000 ft. from the

extraction area and therefore outside the 1,000 ft. impact area. It is probable that the traffic along Highway 30 would create more noise and dust than the County property. Because of the linear nature of the County quarry, there is an opportunity to retain existing vegetation as a plant buffer on the north side of the County property to protect the Clatsop Resources property from a possible view of the quarrying operation. The Clatsop Resources property is excluded from the impact area in order to allow full and unrestricted use of the property within the constraints of the zone.

The Hunt Creek drainage flows north south along the east side of Clifton Road, and empties into the Columbia River. This is a year round Class I stream which possibly contains an anadramous fish run. The Oregon Department of Fish and Wildlife (ODFW) has never complained or sanctioned the County (to the knowledge of the County Public Works Director) for sediment related problems associated with the quarry. This is in part due to the fact that the quarry has not been actively mined for over ten years. If active quarrying were to be carried out, a sediment retention basin would have to be built in coordination with ODFW. Because of the occasional and non-commercial use of the quarry, it is not anticipated that the quarry would conflict with the natural values of the stream, particularly since there is a major County road between the quarry and Hunt Creek.

Conclusion

Within the impact area surrounding the Clifton quarry, few conflicting uses are found, and few land uses which may have conflicts with a rock quarry are anticipated. Nonetheless it is in the interest of Clatsop County and its citizens to protect this resource for the future.

In order to protect the conflicting uses in the vicinity of the Clifton quarry, the County will carry out two remediation actions: 1) the Clatsop Resources, Inc. property is excluded from the impact zone as shown on Maps 1 and 2. While there is an existing topographic barrier between the residence and the active quarry site to the north, the County will enhance this buffer by leaving the existing vegetation within the designated impact area. 2) In order to protect the Hunt Creek resource, the County will construct sediment basins and other sediment prevention measures prior to any extraction of rock at the quarry if required by and under the supervision of the Oregon Department of Fish and Wildlife and DOGAMI. This action, in addition to the separation of the creek from the existing County road, will protect the Goal 5 resource and eliminate conflicting uses.

ESEE ANALYSIS

The Goal 5 rule (OAR 660-16-005(2)) requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy (ESEE) consequences of the conflicts must be determined. "Both the impacts on the resource site and on the conflicting use must be considered in analyzing the ESEE consequences. The applicability and

requirements of other Statewide Planning Goals must also be considered, here appropriate, at this stage of the process."

Economic

The economic consequences of allowing conflicting uses to be established near Clifton quarry are significant. While large scale urban development is not likely, even one or two dwellings could affect the operation of the quarry through neighbor complaints, particularly when the quarry is owned by a local government. The economic consequences of allowing the conflicting uses in monetary terms is difficulty. On the assumption that there are 300,000 usable cubic yards of material in the quarry, and the average price of pit run rock is $5.00 per yard, the current value of the quarry is $1.5 million at the quarry site. Transportation is a significant factor in the cost of aggregate materials. The Clifton quarry is strategically located for the northeastern portion of the County. Not having access to the Clifton quarry would mean the County would have to haul rock from the Big Creek quarry, or possibly the other quarries. Additional costs include resolving conflicts after they have surfaced. Political entities such as the County are especially vulnerable to conflicts. Delays during the construction season can create severe problems for project budgets.

Since the surrounding property is undeveloped at this time, economic consequences for these parcels are speculative. Uses may be proposed for these parcels which can be compatible with the quarry operation.

ɔcial

The consequences of allowing conflicting uses adjacent to quarry operations are not directly applicable to protection of the rock resource itself. However, the social consequences of development upon surrounding land use may cause significant modification of quarry operations. Even one single family dwelling could bring pressure to bear on the County to restrict or terminate operations. If conflicting uses are allowed near the site, it is possible that the resource could not be developed because of the inability to meet environmental regulations designed to protect the livability of surrounding property. Requiring measures to protect conflicting land uses from the impacts typically generated by quarry operations could result in curtailed productivity and a reduction in livability for other County residents which rely on a high standard of roads and dikes. The effect on conflicting uses if the development is allowed includes the typical and unavoidable effects of quarry operations, including noise, dust and truck traffic. The site is not a permanent, year-round commercial quarry operation, and it is difficult to predict the effects totally. The County will work with DEQ and ODFW to develop the site in the most appropriate manner. The recently adopted Quarry and Mining Overlay Zone (QMO) contains standards to regulate the operation of the quarry, but they may not be sufficient to satisfy neighbors.

nvironmental

No adverse environmental consequences are anticipated from fully allowing the conflicting use. However, allowing a sensitive use in the vicinity, such as a residence, may cause the County to curtail or abandon the operation. Environmental effect such as dust, noise and vibration, as well as visual or aesthetic impacts, can have a real impact on the quality of life for residents in the area, or for schools. As described above, the County will work with DEQ and ODFW to control adverse impacts during operation, and will reclaim the site in accordance with DOGAMI requirements upon closure.

Energy

Since the distance traveled between an aggregate resource site and job site is the most critical part in assessing energy consumption, eliminating the Clifton quarry from the choice of sites would increase overall County energy usage. Material would have to be trucked in for use on County and State Highway projects from out of the County, barged in from up the Columbia River, or trucked from quarries such as Big Creek, or the Highway 202 area. Energy impacts on conflicting uses would be negligible. Any potential conflicting use would likely be a rural residence. Not locating in this area could have positive energy impacts, particularly if the occupant located closer to employment.

REQUIREMENTS OF OTHER APPLICABLE STATEWIDE PLANNING GOALS

Goal 4 - Forest Lands

oal 4 - Forest Lands

The Clifton quarry is located in the F-80 zone, which is intended to protect the forest resource. Aggregate operations on this site are not expected to conflict with the protection of forest land, forest practices, or other activities necessary and appropriate for management of soil, air, water, fish and wildlife resources, the provision for recreational opportunities, and agricultural uses. Use of the quarry is a transient or temporary land use which should not preclude forest activities on surrounding lands.

Mining and processing of aggregate and mineral resources are permissible uses of forest lands as specified by the Goal 4 administrative rule. No aspects of the quarry's development, as envisioned by the County, would force a significant change in, or significantly increase the cost of accepted forest or farming practices on surrounding lands dedicated for resource use. Similarly, no aspects of proposed operations are expected to significantly increase the fire hazard, the cost of fire suppression, or the risks to fire suppression personnel.

Goal 6 - Air, Water and Land Resources Quality

The environmental effects of quarry operation is discussed above. As mentioned, the County will comply with all DEQ, ODFW, and DOGAMI requirements during operation and during closure of the site. Any

crushing equipment used on the site will require permits from DEQ; contractors are required to obtain and comply with all permits. The County has not yet been required to prepare a reclamation plan for DOGAMI because of the limited amount of activity on the site. However, a plan will be prepared when the threshold level of activity is reached.

Goal 12 - Transportation

Statewide planning goal 12 requires local governments "to provide and encourage a safe, convenient and economic transportation system." The purpose of the Clifton site is to provide a low cost source of rock for County, and possibly State, roads and highways. With the proximity of the site to the Brownsmead and Knappa areas, and to U.S. Highway 30, the cost of the public road system can be reduced by the protection of this quarry.

Goal 13 - Energy Conservation

As described above, the location of the quarry will save energy by virtue of its strategic location, and the fact that rock would have to be imported from other places such as the Willamette Valley.

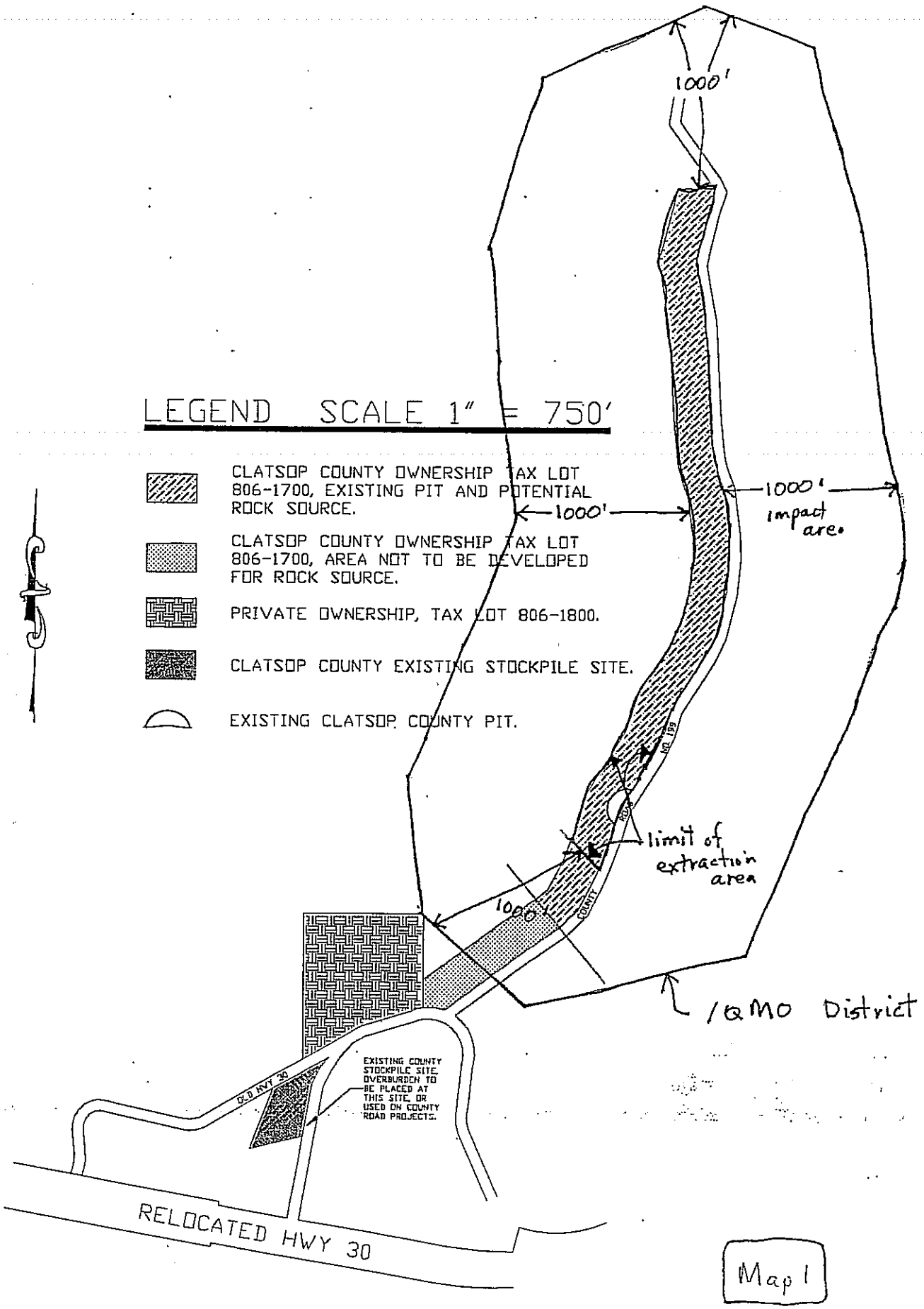
DETERMINATION AND PROGRAM TO ACHIEVE THE GOAL

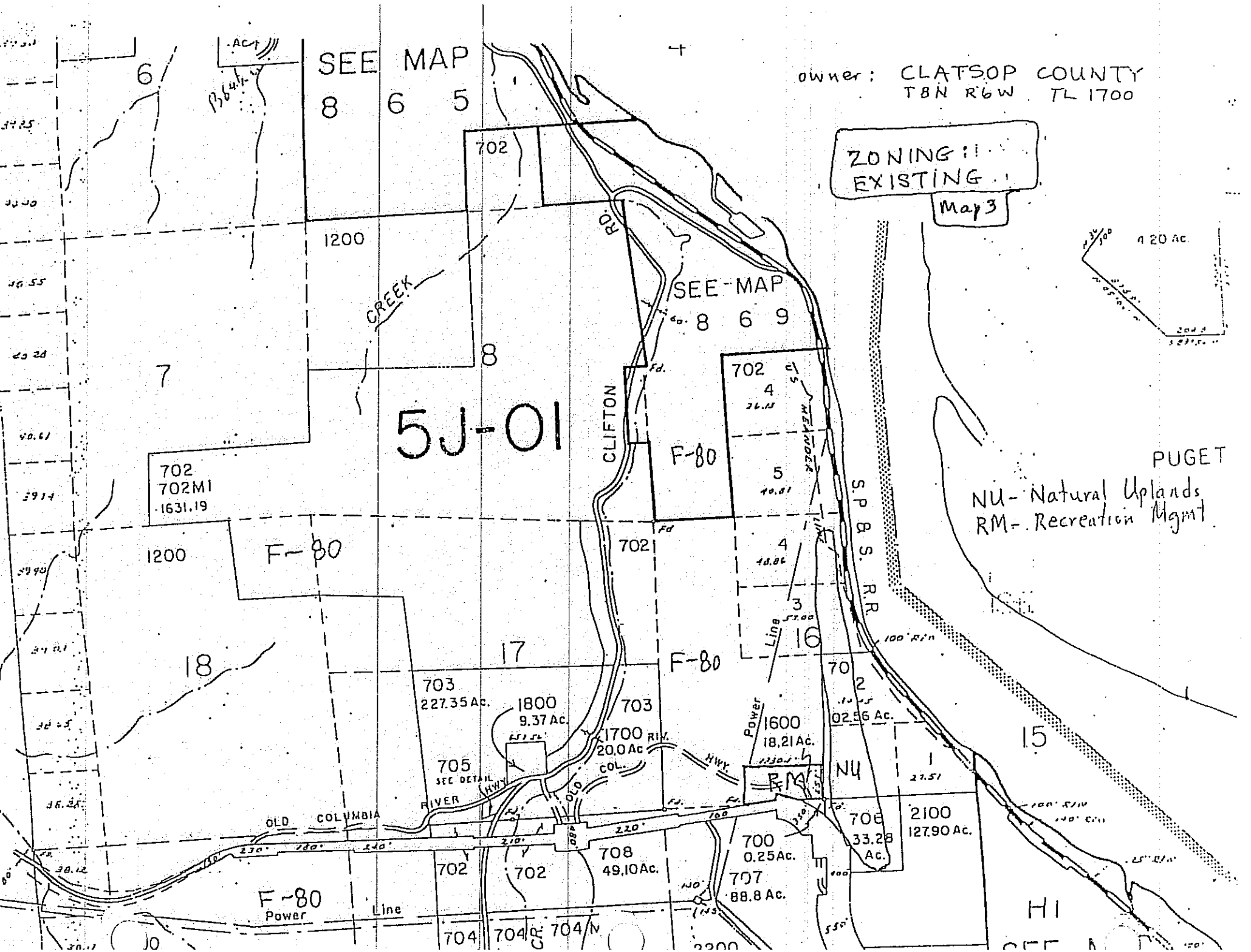
Summary of the ESEE Analysis

The ESEE analysis demonstrates that the Clifton site is a significant aggregate resource for Clatsop County, and should be protected through the County planning process.

Program to Achieve the Goal

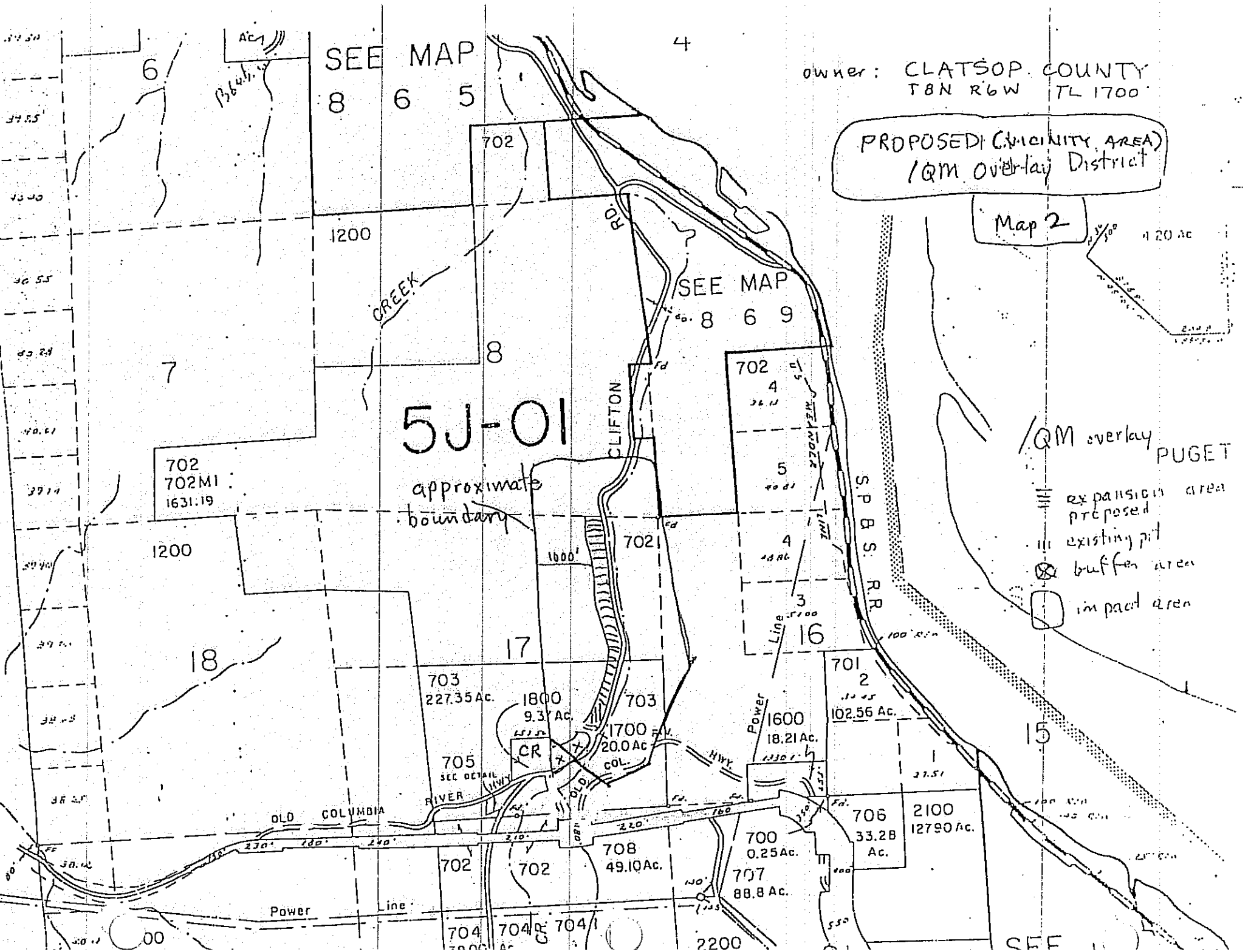
The County has adopted policies in the Comprehensive Plan and a zoning overlay zone to protect significant quarry sites. The purpose of this analysis is to demonstrate that the Clifton quarry is significant. The attached map (Map 1) illustrates the active quarry site, the expansion area and a 1,000' impact area surrounding the expansion area. The underlying zone will continue to be F-80 and the QMO overlay will be on the expansion area until the site is no longer useful for mineral or aggregate extraction or processing. At the end of the site's usefulness the QMO zone will be removed and the site will be reclaimed.

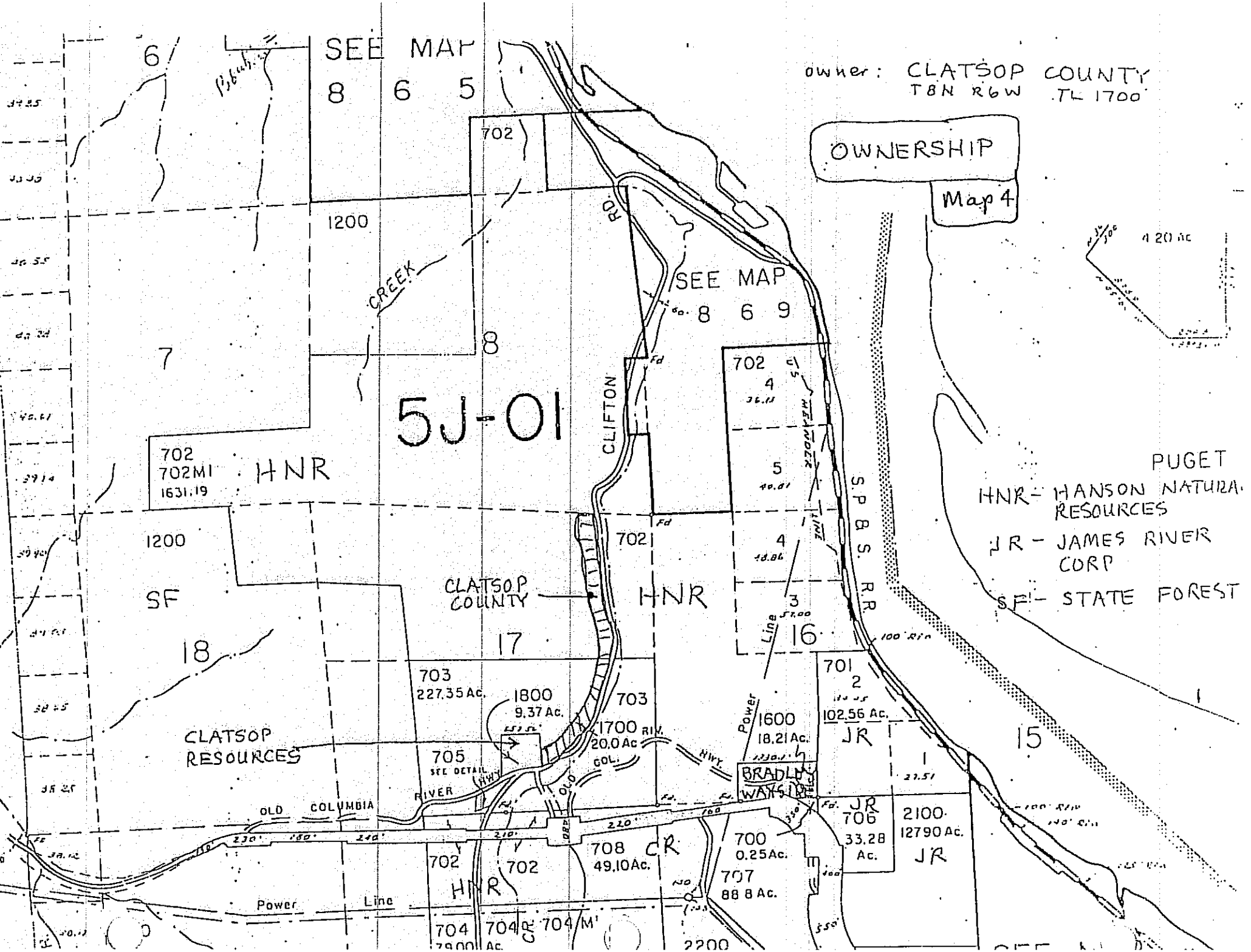

LEGEND SCALE 1" = 750'
CLATSOP COUNTY OWNERSHIP TAX LOT 806-1700, EXISTING PIT AND POTENTIAL ROCK SOURCE.
CLATSOP COUNTY OWNERSHIP TAX LOT 806-1700, AREA NOT TO BE DEVELOPED FOR ROCK SOURCE.
PRIVATE OWNERSHIP, TAX LOT 806-1800.
CLATSOP COUNTY EXISTING STOCKPILE SITE.
EXISTING CLATSOP COUNTY PIT.
1000'
1000'
1000' impact area
limit of extraction area
1000'
COUNTY
MP 199
OLD HWY 30
EXISTING COUNTY STOCKPILE SITE. OVERBURDEN TO BE PLACED AT THIS SITE, OR USED ON COUNTY ROAD PROJECTS.
RELOCATED HWY 30
I & M O District
Map 1

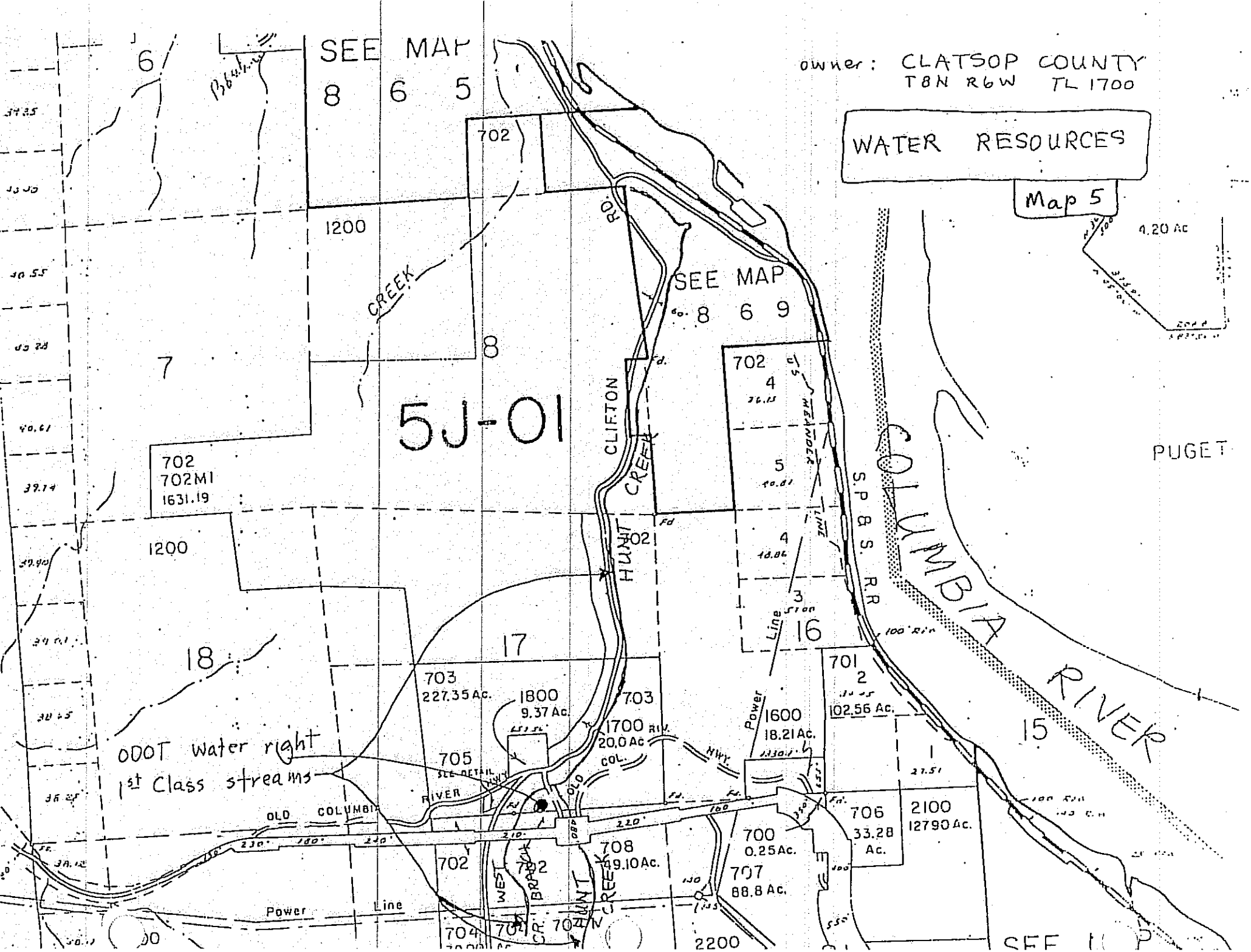

owner: CLATSOP COUNTY
T8N R6W TL 1700
ZONING:
EXISTING
May 3
SEE MAP 8 6 5
SEE MAP 8 6 9
5J-01
CREEK
CLIFTON
RD.
S.P.&S. R.R.
PUGET
NU- Natural Uplands
RM- Recreation Mgmt
F-80
F-80 Power Line
OLD COLUMBIA RIVER HWY
OLD COL. HWY
1200
702
702M1
1631.19
703
227.35 Ac.
1800
9.37 Ac.
1700
20.0 Ac
1600
18.21 Ac.
705
SEE DETAIL
708
49.10 Ac.
700
0.25 Ac.
707
88.8 Ac.
706
33.28 Ac.
2100
127.90 Ac.
RM
NU
HI
4.20 Ac.
02.56 Ac.
704
704 Cr.
704/N

owner: CLATSOP COUNTY
T8N R6W TL 1700

PROPOSED (VICINITY AREA)
/QM Overlay District




owner: CLATSOP COUNTY
T8N R6W TL 1700
OWNERSHIP
Map 4
SEE MAP 8 6 5
SEE MAP 8 6 9
5J-01
CLIFTON RD.
CREEK
S.P. & S. R.R.
Power Line
OLD COLUMBIA RIVER HWY.
BRADLEY WAY
CLATSOP COUNTY
CLATSOP RESOURCES
PUGET
HNR - HANSON NATURAL RESOURCES
JR - JAMES RIVER CORP
SF - STATE FOREST
702 702M1 1631.19 HNR
1200
SF
18
17
16
15
703 227.35 Ac.
1800 9.37 Ac.
1700 20.0 Ac.
705 SEE DETAIL
708 49.10 Ac.
707 88.8 Ac.
700 0.25 Ac.
1600 18.21 Ac.
701 102.56 Ac. JR
706 33.28 Ac. JR
2100 12790 Ac. JR
704 79.00 Ac.
704M
2200


owner: CLATSOP COUNTY
T8N R6W TL 1700
WATER RESOURCES
Map 5
SEE MAP 8 6 5
SEE MAP 8 6 9
5J-01
CREEK
CLIFTON CREEK
HUNT CREEK
WEST BRANCH
S.P. & S. R.R.
COLUMBIA RIVER
PUGET
Power Line
OLD COLUMBIA RIVER HWY.
ODOT Water right
1st Class streams
4.20 Ac
702
1200
702 M1
1631.19
703
227.35 Ac.
1800
9.37 Ac.
1700
20.0 Ac
1600
18.21 Ac.
701
102.56 Ac.
705
706
33.28 Ac.
2100
12790 Ac.
700
0.25 Ac.
707
88.8 Ac.
708
9.10 Ac.
704
2200
6
7
8
17
18
16
15

BACKGROUND INFORMATION

Miocene volcanic rock (Tmv) CLIFTON PIT AREA

Volcanic rock of Miocene age forms extensive exposures along the Columbia River in the Cathlamet and Svensen quadrangles and composes the bulk of Saddle Mountain and Humbug Mountain in the Saddle Mountain quadrangle to the south. The exposures were treated as part of the Columbia River lava by Warren and others (1945) and as Miocene intrusive rock and middle Miocene basalt by Wells and Peck (1961).

The exposures along the Columbia River consist of up to 1,400 feet of dense, tholeiitic, flow-on-flow basalt of subaerial origin in the vicinity of Bradley State Park and at Nicolai Mountain. Only the basal portions of some of the lowermost flows are pillowed or otherwise show signs of subaqueous conditions in these areas. Northwestward in the lower reaches of Big Creek and westward along the crest of Wickiup Mountain, breccias and pillow lavas are the dominate lithology (Figure 18). Intercalations of marine sedimentary rock are also common locally. A northeast-trending middle Miocene strandline is tentatively postulated in the Big Creek area.

Petrochemically the flow-on-flow basalts exhibit both late Yakima (Kienle, 1971; Snavely and MacLeod, 1973) and Yakima (Snavely and Macleod, 1973) affinities. Flow directions of the upper flows at Bradley State Park (late Yakima) are to the west according to Kienle (1971).

The exposures at Humbug and Saddle Mountains consist of a maximum of 1,300 feet of massive, submarine, basaltic breccia and palagonitic basaltic breccia cut by innumerable thin vertical dikes which display remarkable columnar jointing in places. The breccias are the dominant lithology and consist of glassy, fine-grained basaltic fragments of Yakima petrology (MacLeod, oral communication, 1972) set in a matrix of finer volcanic debris and glass.

The breccias at Saddle Mountain and Humbug Mountain have been variously interpreted as more or less local accumulations (Layfield, 1936b) and as localized remnants of a once far more extensive basaltic breccia blanket (Baldwin, 1952). The numerous dikes throughout the interior of Clatsop County are consistent with the view that the breccias and flows were originally of far greater extent than they are at present. The clustering of dikes at hill 1794 two miles south of Humbug Mountain suggests at least that a third local accumulation of Miocene basaltic breccia was originally present in that area.

The Yakima petrology (N. S. MacLeod, oral communication, 1972), of the Miocene basaltic breccias and their position above fossiliferous strata of middle Miocene age suggest that the unit is middle Miocene in age and has an absolute age of approximately 14 to 16 million years.

SOURCE: ENVIRONMENTAL GEOLOGY OF INLAND TILLAMOOK & CLATSOP COUNTIES, OREGON, BULLETIN 79
DOGAMI 1973 5

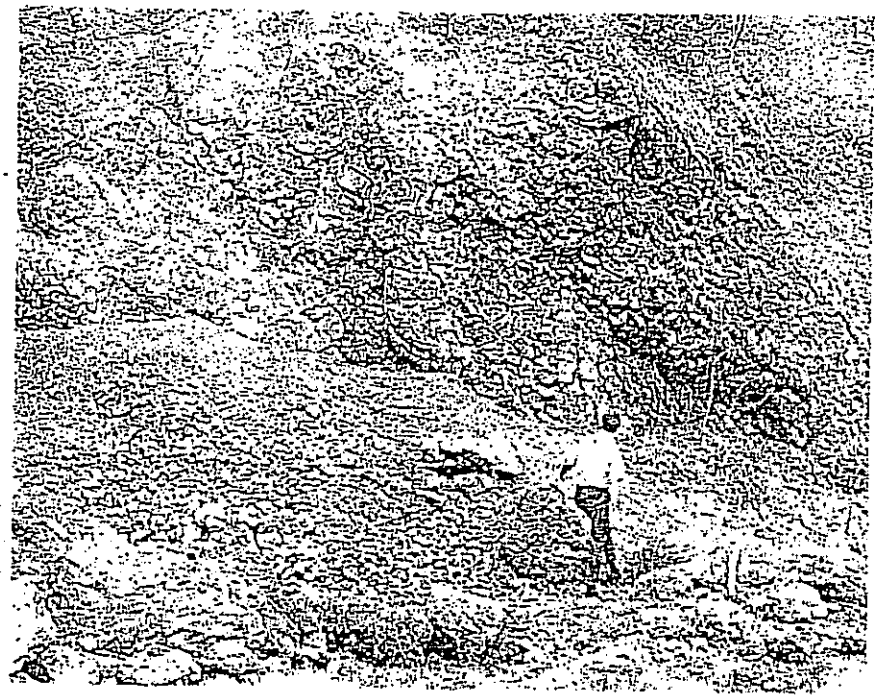


Figure 18. Pillow structures developed in the Miocene volcanic rock (Tmv) in the lower reaches of Big Creek (sec. 29, T. 8 N., R. 7 W.). An underwater environment of cooling is inferred for the lavas. The resulting quarry rock is poor in quality.

Upper Miocene sandstone (Tmus) WEST OF CLIFTON PIT

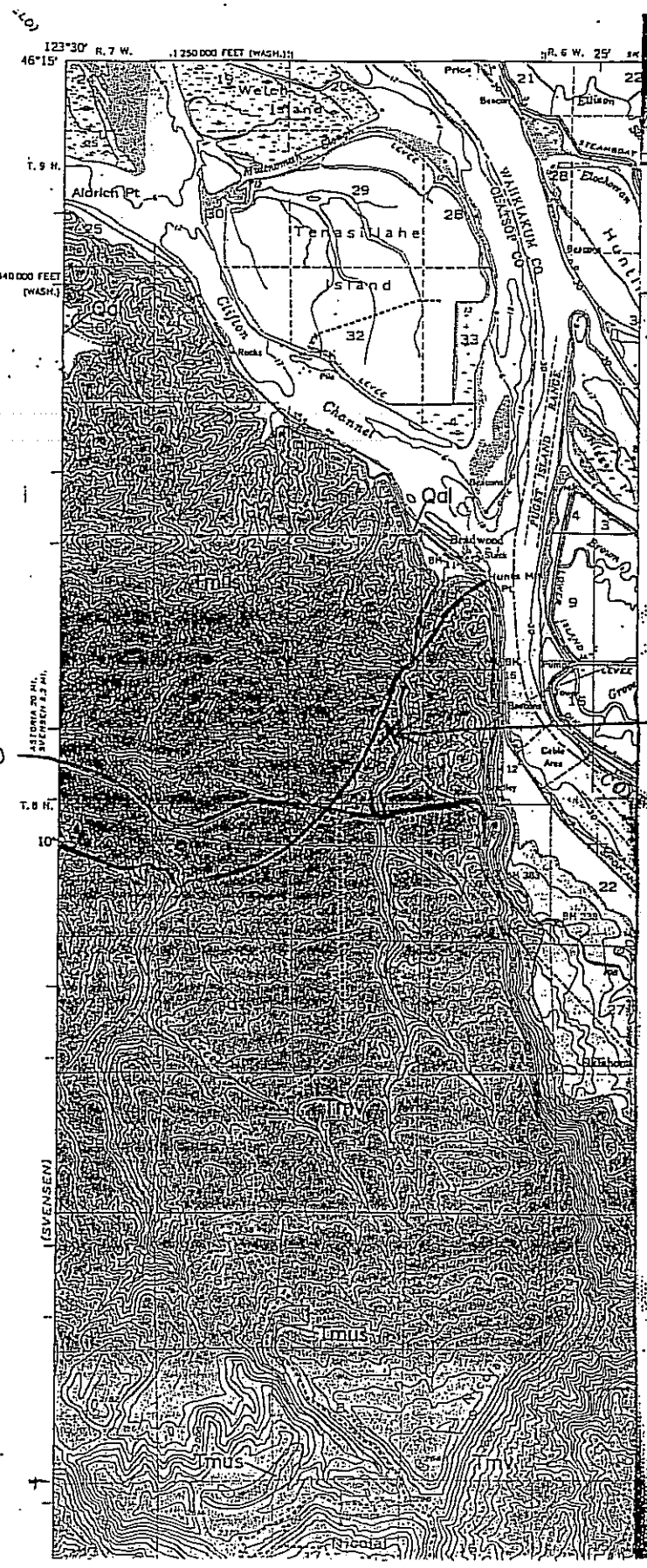
The upper Miocene sandstone (Tmus) consists of 500 to 1,000 feet of consolidated sandstone and minor siltstone and overlies the Miocene volcanic rock (Tmv) in the northern Svensen (Figure 19) and Cathlamet quadrangles. The lower parts of the unit are interbedded with the upper parts of the Miocene volcanic rock at Bradley State Park, along the lower reaches of Hunt Creek, and on the upper slopes of Nicolai Ridge and Nicolai Mountain (Figure 20).

The upper Miocene sandstone is equivalent to part of the Astoria Series of Arnold and Hannibal (1913), part of the Miocene Series of Washburne (1914), the Pliocene (?) sandstone of Warren and others (1945), and the Pliocene marine sedimentary rocks of Wells and Peck (1961). It is equivalent to the upper Astoria Sandstone of Lowry and Baldwin (1952), and the Pliocene (?) sandstone of Dodds (1963, 1970). Strata mapped as part of the upper Miocene sandstone by Schlicker and others (1972) high on the west slopes of Wickiup Mountain are here considered to be part of the middle Miocene sandstone (Tmms) on the basis of stratigraphic position.

The lower parts of the upper Miocene sandstone consist primarily of friable, coarse- to medium-grained, massive, arkosic sandstone. Subaqueous slump breccias composed of randomly oriented mudstone slabs floating in a sandstone matrix are present at Clifton, Bradley State Park, and at the Gnat Creek Forest Park (Figures 21 and 22). The unit as a whole appears to be transgressive and passes upsection into clay-rich, finer grained, thinner bedded sandstones and siltstones in the vicinity of Aldrich Point. A greater tendency for mass movement in this area is attributed in part to the change in lithology.

6

GEOLOGIC MAP
of the
CATHLAMET QUADRANGLE
OREGON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Tenasillahe Island
Clifton Channel
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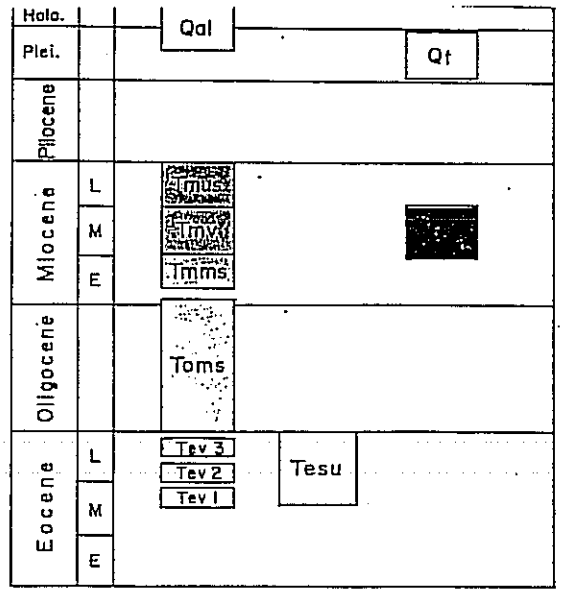


EXPLANATION

Unconsolidated Surficial Units

Qal — Quaternary Alluvium
Low-lying flood plains of the Columbia River consisting of sand and silt; also includes gravelly flood plains lining the lower reaches of Big Creek and Gnat Creek.

Qt — Quaternary Terrace Deposits
Dissected alluvium consisting primarily of poorly sorted silt, sand, and gravel.

Stratigraphic Units

Tmus — Upper Miocene Sandstone
Approximately 1,000 feet of massive, coarse- to fine-grained, arkosic sandstone passing upsection into sandy siltstone. Thick sandstone interbeds are present in the Miocene Volcanic Rock near Bradley State Park and on Nicolai Mountain. Subaqueous slump breccias are present locally.

Tmv — Miocene Volcanic Rock
Up to 1,500 feet of subaerial flow-on-flow basalt and subaqueous, palagonitic breccias of basaltic composition. Subaerial flow rock dominates in the south and east and breccias dominate in the lower Big Creek area. The basalts are petrochemically similar to the Yakima Basalt of Waters (1961).

Tmms — Middle Miocene Sandstone
Several hundred feet of massive, micaceous, arkosic sandstone and subordinate interbedded sandy siltstone immediately underlying the Miocene Volcanic Rock. Age equivalence with the Astoria Formation is inferred in the Big Creek drainage; age of small exposures in the Cathlamet quadrangle is less certain.

Toms — Oligocene to Miocene Sedimentary Rock
Greater than 5,000 feet of massive- to thin-bedded, medium- to dark-gray, tuffaceous siltstone and subordinate interbedded blocky sandstone. Probably includes Astoria-age siltstones in the middle reaches of Big Creek.

Intrusive Rock
Basaltic dikes and sill of middle Miocene age.

Geologic Symbols

Faults
Solid where definite; long dashes where approximately located or indefinite; short dashes where inferred; and dotted where concealed. U, upthrown side; D, downthrown side.

Contacts
Solid where definite; long dashes where approximate; short dashes where inferred; and dotted where concealed.

⊕ Horizontal Beds

⊥ Strike and dip of beds or flows

⚒ Rock quarries

RECORDED
FEB 24 1995
CC DOC # 95021014 0
REEL #

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

ORDINANCE NO. 95-3

(AN ORDINANCE AMENDING THE
(CLATSOP COUNTY COMPREHENSIVE
(PLAN/ZONING MAP AND TEXT AS ADOPTED
(BY THE BOARD OF COMMISSIONERS
(ADOPTING CERTAIN FINDINGS WITH
(CONDITIONS AND RESCINDING
(INCONSISTENT PROVISIONS

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the Nygaard Lewis & Clark QMO Comprehensive Plan and Zoning Map and Text Amendment.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Comprehensive Plan and Zoning Map and Text. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the said Clatsop County Comprehensive Plan/Zoning Map and Text.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Planning Commission

held a public hearing on October 18, 1994. The Board received and considered the Planning Commission's recommendations on this request and held a public hearing on this ordinance pursuant to law on February 8, 1995.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supersede, control and repeal any inconsistent provision of the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effective 30 days following adoption of this Ordinance.

SECTION 7. ADOPTION CLAUSE.

The Board of Commissioners hereby adopts the Nygaard Lewis & Clark QMO Comprehensive Plan and Zoning Map and Text Amendment with conditions, set forth in Exhibit "A" attached hereto and by reference herein made a part of this ordinance in its entirety.

ADOPTED this 22 day of January, 1995.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By Geoffrey Stone
Geoffrey Stone, Vice Chair

By Helen Lewis
Recording Secretary

Effective Date: _____

APPROVED AS TO FORM: _____
Clatsop County Counsel

EXHIBIT "A"

To: Clatsop County Planning Commission

From: David Carpenter, Senior Planner DC

Applicant: Don Lampi and Martin Nygaard

Owner: Martin Nygaard

Location: Lewis and Clark Road.

Legal Description: T7N-R9W-Sec31-TL400

Comp Plan Designation: Agricultural Lands

Zoning: Exclusive Farm Use (EFU)
Flood Hazard Overlay (FHO)

Request: Place a Quarry and Mining Overlay Designation Over a portion of the Site.

Date: September 22, 1994

I Listed below are the applicable Plan and Ordinance requirements and standards that will be used to review this application.

A. Clatsop County Comprehensive Plan (County-Wide Element)

1. Goal 1
2. Goal 2
3. Goal 3
4. Goal 4
5. Goal 5
6. Goal 7

B. Lewis and Clark Community Plan

1. Fish and Wildlife Policies

C. Clatsop County Land and Water Development and Use Ordinance 80-14

1. Article I
   Section 1.010-1.050
2. Article II Procedures
   Section 2.140 (Type IV Procedure)
3. Article III Zones
   Section 3.560
4. Article IV Special Districts
   Section 4.000
   Section 4.400

4. Article V Permit and Issue Determinations
   Section 5.300-5.302
   Section 5.700-5.735
5. Article VI Public Deliberations and Hearing
   Section 6.118
6. Article X General Provisions
   Section 10.110-10.150

D. Standards Document

1. Sections 1-3
2. S4.400-S4.404
3. S4-500-S4.504

E. Statewide Planning Goals and OAR's

1. Goal 1
2. Goal 2
3. Goal 3
4. Goal 4
5. Goal 5
6. Goal 6
7. Goal 7
8. Goal 12
9. Goal 13
10. OAR 660-05

II Findings

A. Background

Applicant:

The Nygaard Lewis & Clark (hereafter referenced as "Lewis & Clark") Quarry is located on a 62 acre parcel to the adjoining the side of the Lewis & Clark County Road about five miles north of Seaside. The quarry is located on Clatsop County Tax Lot 7-9-31 #400. The pioneered and cleared quarry area covers about 5 to 10 acres of the overall ownership.

This quarry has been used in the past as a rock source for logging road construction. The site does not have an active Clatsop County conditional use approval.

Staff:

Martin Nygaard has applied for a Quarry and Mining Overlay (QMO) District for a portion of land Described as T7N-R9W-Sec31-TL400. This parcel is on the east side of the Lewis and Clark River approximately 5 miles northeast of Seaside. The subject parcel is currently zoned Exclusive Farm Use (EFU) with a portion also designated with a Flood Hazard Overlay

(FHO). These zoning designations would remain. The QMO District would be added to a portion of the parcel.

The QMO overlay provides the following purpose statement:

> The purpose and intent of the Quarry and Mining Overlay District (/QMO) is:
>
> (A) To allow the development and use of mineral and aggregate resources;
> (B) To provide uniform standards for extraction and processing of mineral and aggregate resources;
> (C) To balance conflicts between mining operations and new and existing surrounding conflicting uses;
> (D) To ensure the rehabilitation and restoration of mining sites; and
> (E) To protect mineral and aggregate resources for future use consistent with Comprehensive Plan goals and policies and Statewide Planning Goal 5.

The Planning Commission has to determine if the site merits protection as a Goal 5 resource. If the site is found to be "Significant", the site must be protected unless there are enough conflicting uses in proximity to the site such that the site could not be used as a quarry. The site must also be analyzed for any other Goal 5 sites that could impact the quarry. Operational approval is a second application that is submitted to the Planning Department at the time an owner wishes to begin mining activities. Again, the Planning Commission is not reviewing a specific operating plan but rather is deciding whether or not the site should be protected.

B. Definitions

CONFLICTING USE -- A use authorized in the underlying zone, which, if allowed, could adversely affect operations at a significant mineral and aggregate resource site, or could be adversely affected by mining or processing activities at a significant site. For purposes of this chapter, another Goal 5 resource located on or adjacent to a significant site may be considered a conflicting use if that resource could be adversely affected by mining or processing at the site.

ESEE ANALYSIS -- The analysis of economic, social, environmental and energy consequences of (a) allowing mining on a significant site, and (b) allowing conflicting uses to displace mining on a significant site. Based on the results of the ESEE analysis, the County may determine a level of protection for the resource, and implement a program to achieve the designated level of protection.

EXTRACTION AREA -- The area within which mineral and aggregate extraction, processing and storage may take place under the provisions of this Chapter (see Appendix A).

IMPACT AREA -- An area determined on a case-by-case basis through the ESEE analysis, within which sensitive uses are limited or regulated (see Appendix A).

SENSITIVE USE -- A conflicting use or structure considered sensitive to dust, odor, vibration and/or noise, such as a residence, school, park or hospital. Industrial, agricultural and forestry activities are not sensitive uses unless the activity includes an accessory residential use.

C. Clatsop County Land and Water Development and Use Ordinance.

Staff:

Following are applicable sections from the QMO zone text followed by applicant and/or staff response.

Section 4.406. Application of Overlay Zone. Any conflicts between the provisions of this Chapter and the provisions of other chapters of this Ordinance, Comprehensive Plan Goals and Policies and the Statewide Planning Goals shall be resolved through the ESEE analysis.

The Quarry and Mining Overlay Zone consists of two distinct areas; the Extraction area and the Impact area.

(A) EXTRACTION AREA. The mineral and aggregate extraction area shall be applied to any site where mining will be permitted and which has been identified as a significant resource area in the Comprehensive Plan Inventory or through the QMO Overlay Zone designation procedure, outlined in Section 5.700. The area may consist of one or more tax lots or portion(s) of single tax lots, and may be applied to contiguous properties under different ownership. The size of the Extraction Area shall be determined by the Goal 5 process, but between any existing Sensitive Use and the extraction area boundary a general distance of 1,000 feet shall be applied. The exact distance may be varied through the planning process.

(B) IMPACT AREA. The mineral and aggregate Impact Area shall be applied to properties or portions of properties adjacent to and immediately surrounding an Extraction

Area. The width of the Impact Area shall be determined through the ESEE analysis prior to application of the QMO Overlay Zone, based on the type of mineral or aggregate resource to be extracted as well as physical features of the area which may cause a larger or smaller area to be affected. The minimum width of the impact area shall be 1,000 feet from the Extraction Area boundary unless a reduced distance is justified, based on the ESEE analysis (see example in Appendix A).

Staff:

Following is the applicants ESEE analysis, discussion of conflicting uses, discussion of the impact area and a conclusion by the applicant.

Applicant (ESEE):

The Goal 5 rule (OAR 660-16-005(2)) requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy (ESEE) consequences of the conflicts must be determined. "Both the impacts on the resource site and on the 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 Lewis & Clark River adjoins the west side of the active quarry area. Two feeder drainages which empty into the Lewis & Clark are found along the north and south sides of the active quarry area. Special protective measures will be required to avoid impacts upon these watercourses. Quarry access roads adjoining the Lewis & Clark River and Klickitat Creek to the north will have to be sloped to contain and divert rainwater runoff waters into the interior of the quarry development area. Rainwater collection and sediment ponds will be required to treat these runoff waters prior to discharge into the Lewis & Clark River. A vegetative buffer of at least 50 feet should be maintained between the south boundary of the active quarry area and the Spegyai Creek drainage.

No other Goal 5 resources have been identified at this quarry site.

The Lewis & Clark quarry site contains a valuable aggregate resource that merits Goal 5 protection. All other Goal 5 resources have been examined and can be protected with a program of avoidance and use controls.

Applicant (Impact Area):

The Goal 5 rule (OAR 660-16-0002) requires identification of an impact area itself. The impact area is an area in which identified conflicting uses may adversely may adversely affect the resource. Although impact area is not defined in either the goals or in the Goal 5 rule, the impact area for a mineral and aggregate resource site must be the area which includes uses which could adversely affect the resource, but also the area including those uses which could be affected by the presence of a significant resource. The attached impact area map shows the boundaries of the Lewis & Clark quarry operations and an impact area that extends 1000 feet beyond the perimeter of this quarry.

Noise, dust, odor and blasting effects typically have the potential to adversely effect surrounding properties in the immediate proximity to a quarrying operation.

Applicant (Conflicting Uses):

There is only one residential dwelling (Schmelzer) located within the 1000 foot impact area surrounding the Lewis & Clark quarry site. This dwelling is located about 500 feet to the south of the active quarry area on Tax Lot 7-9-31 #402. This dwelling is effectively screened by topography and existing vegetation from the quarry area.

Commercial forest lands adjoin the site to the north, east and south.

The Lewis and Clark river adjoins to the west.

Applicant: (Conclusion)

An existing buffer of trees can be maintained between the south boundary of the active quarry and the Schmelzer house to eliminate potential adverse visual impacts and lessen noise impacts.

No significant impacts have been identified that would merit additional use restrictions upon quarrying activities on the Lewis & Clark site.

Staff:

The Lewis and Clark river borders the site to the west. The Klickitat creek borders the extraction area to the north. The Spegyai creek is to the south of the extraction area. At its

closest point, Spegyai Creek is 70 feet south of the extraction area. The QMO standards requires that where existing vegetation exists along rivers and creeks, a buffer zone consisting of this vegetation must be maintained for 100 feet. This buffer is designed to reduce impacts on the waterways.

The only dwelling within the Impact area is sited southwest of the extraction area. As indicated on the map submitted by the applicant, the dwelling will be approximately 300 feet from the Extraction Area. The 300 feet between the dwelling and Extraction Area is currently vegetated. Approximately 100-150 feet of this buffer is located on the applicants property. The dwelling would be visually screened by the vegetation on the applicants property.

The current access road into the site runs to within 60 feet of the dwelling. This access is not screened. Before operational approval is granted, access would be addressed. Currently, access is proposed from the portion of taxlot 400 that is situated on the west side of the river. One of the maps included with this report shows the proposed access point.

County records indicate that Marvin Hartil has a water right located in the vicinity of the confluence of the Lewis and Clark River and Spegyai Creek. This area is located outside of the Extraction Area but inside the Impact Area.

Section 4.424 Determination of Significance. Only sites deemed significant shall be designated with a QMO. The following criteria shall be used in determining significance:

(A) Significant Aggregate Resources. An aggregate resource shall have at least 250,000 cubic yards of reserve and meet at least two of the following minimum requirements:

(1) Abrasion: Loss of not more than 35% by weight;

(2) Oregon Air Degradation: Loss of not more than 35% by weight;

(3) Sodium Sulphate Soundness: Not more than 17% by weight.

(B) Other mineral resources. Significance of non-aggregate resources shall be determined on a case-by-case basis after consultation with DOGAMI.

Applicant:

Preliminary testing indicates the presence of an excellent quality rock deposit. Test results from Braun Intertec Northwest are attached.

The quantity of the rock source is estimated to be 500,000 to 750,000 cubic yards.

Staff:

The applicant estimates the quantity of rock to be approximately 2 to 3 times the minimum amount necessary to qualify as a significant site. The minimum number of cubic yards requires is 250,000.

The material must meet two of the three quality specifications listed in the above standard. The Laboratory data submitted by the applicant indicates that the material meets the abrasion and sodium tests.

Following is a list of Quarry sites separated into one of three classifications. This request includes placing this site on the Goal 5 list of sites requiring QMO protection. The site is currently listed as needing only Conditional Use Approval.

Classification of County Mineral and Aggregate Sites*

Primary Sites Requiring QMO Protection

1)	Clatsop County - Clifton	T8N R7W S17	rock
2)	Clatsop County - Big Creek	T8N R7W S29 SW	gravel
3)	Howard Johnson - US 101	T5N R10W S4	rock
4)	Bayview Transit Mix - US 101	T5N R10W NW9 SW4	basalt

Primary Sites Requiring Conditional Use Approval

1)	George Ordway	T5N R10W S14	basalt
2)	Teevin Bros. Logging	T8N R6W S27 NW	rock
3)	Daren Berg, Humbug Rock	T5N R8W S22	rock
4)	M. Nygaard Logging	T7N R9W S31 NE	rock
5)	A. Riekkola	T7N R8W S18	basalt
6)	Tagg	T7N R10W S3	sand
7)	Horecny	T5N R9W S23	rock

Other Sites

1)	Clatsop County (Anderson Rd - Brownsmead)	T8N R7W S2 SW	clay
2)	Howard Johnson	T5N R10W S4 NW	rock

3)	Oregon State Forestry Dept.	T4N R9W S14,23 NW	rock
4)	Oregon State Hwy. Division	T5N R9W S16,17	basalt
5)	Oregon State Hwy. Division	T5N R8W S25 NW	basalt
6)	McClean Logging	T7N R8W S28	basalt

Staff:

The applicant is requesting that the site be removed from the "Conditional Use" status and listed as a "Primary" or "Significant " site requiring QMO protection.

Section 4.414. Development Standards - Extraction Area. A development plan shall be submitted to the County Planning Department for any activity allowed in Section 4.412. The development plan shall provide the necessary documents, permits, and maps to demonstrate compliance with the standards and requirements listed below.

Staff:

As per sections 4.414, 4.416 and 4.418, the applicant for a QMO designation does not need to show compliance with the following standards at this time. Compliance is required before mining is started. The applicant must respond to these standards and receive planning director approval prior to commencement of operations. The following operational standards are provided, however, for your information.

(A) Screening and Buffering:

(1) An earthen berm and buffer of existing or planted trees or vegetation shall be maintained to fully screen the view of any mineral and aggregate activity and all related equipment from any public road, public park, or residence within 1,000 feet. Where screening is shown through the ESEE analysis to be unnecessary because of topography or other features of the site, the screening requirements may be waived by the Planning Director.

(2) Sight obscuring fencing or approved barrier type shrubs shall be required to eliminate any safety hazards that use of the site may create. Fencing, if required, shall be sight obscuring and a minimum of 6 feet high.

(B) Access:

(1) All private access roads from mineral and aggregate sites to public roads shall be paved or graveled. If graveled,

the access road shall be graded and maintained as needed to minimize dust.

(2) Improvements of fees in lieu of improvements of public roads, County roads and State highways may be required when the Planning Director or hearings body, in consultation with the appropriate road authority, determines that the increased traffic on the roads resulting from the surface mining activity will damage the road sufficiently to warrant off-site improvement. If the fee in lieu of improvements is required, the amount of the fee shall reflect the applicant's pro-rated share of the actual total cost of the capital expenditure of the road construction or reconstruction project necessitated by and benefiting the surface mining operation. Discounts for taxes and fees already paid for such improvements, such as road taxes for vehicles and for property already dedicated or improved, shall be applied.

(3) Any internal road at a mineral and aggregate site within 250 feet of a Sensitive Use shall be paved or graveled, and shall be maintained at all times to reduce noise and dust in accordance with County or DEQ standards specified in the ESEE analysis.

(4) An effective vehicular barrier or gate shall be required at all access points to the site.

(C) Hours of Operation:

(1) Blasting shall be restricted to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. No blasting shall occur on Saturdays, Sundays, or any recognized legal holiday.

(2) Mineral and aggregate extraction, drilling, processing and equipment operation located within 1,000 feet or as established by the ESEE analysis of any Sensitive Use is restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturday. All other sites are limited to operating hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday. No operation shall occur on Sundays or recognized legal holidays.

(3) An increase in operating time limits shall be granted for all activities except blasting if:

(a) Three are no Sensitive Uses within 1,000 feet of the mining site; or if

(b) There are Sensitive Uses within 1,000 feet, the increased activity will not exceed noise standards established by the County or DEQ; and

(c) The operator shall notify the owners and occupants of all Sensitive Uses within 1,000 feet or the distance established by the ESEE analysis by first

class mail which is mailed at least 96 hours prior to the date and approximate time of the activity for which the operator receives an exception.

(4) The operating time limits may be waived in the case of an emergency as determined by the County governing body.

(D) Environmental Standards:

(1) DEQ Standards. Mineral and aggregate extraction, processing and other operations shall conform to all applicable environmental standards of the County and State. Any crusher, asphalt, concrete, ready-mix or other machinery shall submit an approved DEQ permit(s) at the time of development plan application.

(2) DOGAMI Standards. Mineral and aggregate extraction, processing, other operations and site reclamation shall conform to the requirements of the Department of Geology and Mineral Industries (DOGAMI).

(3) Permits Required. Mining shall not commence until all applicable State and Federal permits, if any, are provided to the County.

(E) Equipment Removal:

All surface mining equipment, machinery, vehicles, buildings, man-made debris and other material related to the mineral and aggregate activity shall be removed from the site within 30 days of completion of all mining, processing and reclamation, except for structures which are permitted uses in the underlying zone.

(F) Performance Agreement:

(1) The operator of a mineral and aggregate site shall provide the County with annual notification of DOGAMI permits.

(2) Mineral and aggregate operations shall be insured for $500,000.00 against liability and tort arising from production activities or operations incidental thereto conducted or carried on by virtue of any law, ordinance or condition, and such insurance shall be kept in full force and effect during the period of such operations. A prepaid policy of such insurance which is effective for a period of one year shall be deposited with the County prior to commencing any mineral and aggregate operations. The owner of operator shall annually provide the County with evidence that the policy has been renewed.

(G) Significant Resource Area Protection:

Conflicts between inventoried mineral and aggregate resource sites and significant fish and wildlife habitat, riparian areas and wetlands, and ecologically and scientifically significant natural areas and scenic areas protected by the Clatsop Plains Community Plan or other provision of the County Comprehensive Plan, shall be balanced as determined by the site-specific ESEE analysis.

(H) Site Reclamation:

A reclamation plan shall be submitted concurrently with the development plan required in Section 4.418. The reclamation plan shall include a schedule showing the planned order and sequence of reclamation, shall assure that the site will be restored or rehabilitated for the land uses specified in the underlying zone consistent with the site specific Goal 5 program, and shall meet DOGAMI requirements.

(I) Water Management:

(1) Surface water shall be managed in a manner which meets all applicable DEQ, DOGAMI, and ODFW water quality standards. Approval may be conditioned upon meeting such standards by a specified date. Discharge across public roads shall be prohibited. Existing natural drainages on the site shall not be changed in a manner which substantially interferes with drainage patterns on adjoining property, or which drains waste materials or waste water onto adjoining property or perennial streams. Where the mineral and aggregate operation abuts a lake, river, or perennial stream, all existing vegetation within 100 feet of the mean high water mark shall be retained unless otherwise authorized in accordance with the ESEE analysis and the development plan.

(2) All water required for the mineral and aggregate operation, including dust control, landscaping and processing of material, shall be legally available and appropriated for such use. The applicant shall provide written documentation of water rights from the State Department of Water Resources and/or local water district prior to any site operation.

(J) Floodplain:

Any QMO Extraction Area located wholly or in part in a Special Flood Hazard Area as shown on the Federal Insurance Rate Map (FIRM) shall receive approval in accordance with Section 4.000 of this Ordinance prior to any site operation.

Section 4.416. Application Process. Final development plan approval is required prior to the beginning of any mineral and aggregate activity listed in Section 4.412, and before any expansion of a pre-existing or non-conforming site. The applicant shall provide the following at the time of application:

(A) A development plan demonstrating that the development standards required in Section 4.414 can be met, including:

(1) Screening and fencing;
(2) Access;
(3) Hours of operation;
(4) Environmental standards;
(5) Equipment removal;
(6) Performance agreement;
(7) Significant resource area protection;
(8) Site reclamation;
(9) Water management; and
(10) Floodplain.

(B) A map or diagram showing the location and setbacks of all proposed mineral and aggregate activities and operations and the location and distance to all Sensitive Uses within the Impact Area.

Applicant:

A. Screening and Buffering
The Schmelzer dwelling to the south is effectively screened by topography and existing vegetation. A 50 foot vegetated buffer should be maintained between the active quarry area and Spegyai Creek to the south.

B. Access
A new access road and road approach onto Lewis & Clark Road will need to be constructed when the quarry is developed for commercial use. This road approach will need to be approved by the county Roadmaster and constructed to appropriated County standards.
This access will be gated as required by County QMO standards.

C. Hours of Operation
The quarry can be operated within the restrictions established by the ordinance's provisions for hours of operation and these provisions would be an acceptable condition of approval for this site.

D. Environmental Standards
Appropriate state DOGAMI and DEQ permits will be required for this future commercial quarry use.

E. Equipment Removal
Quarrying equipment and accessory structures will be removed at the time commercial quarry activities are completed at the site.

F. Performance Agreement
Proof of bonding and insurance will be provided to the County as required at the time of commercial development.

G. Significant Resource Protection
ESEE conflicts have been detailed and addressed above.

H. Site Reclamation
Site reclamation will be undertaken to conform with DOGAMI requirements.

I. Water Management
A DEQ stormwater containment and discharge plan will be required for this quarry.

J. Floodplain
The proposed QMO extraction area is entirely outside the County's mapped flood hazard zone.

Staff:
As discussed above, the applicant does not need to comply with these standards until they wish to operate the quarry. At that time, they must submit detailed responses to the above standards and receive planning director approval.

Section 4.418. Site Plan Review.

(A) Site plan review is required prior to commencement of mining. Application shall be in the form required by the County, and shall demonstrate compliance with the standards of Section 4.414 and any requirements adopted as part of the Goal 5 process.

(B) Applications for site plan approval of surface mining operations and activities authorized by Section 4.408 in accordance with ORS 215.425 and ORS 1917.195.

(C) The County shall approve, conditionally approve, or deny a site plan based on the ability of the site plan to conform to the standards of Section 4.414 and other requirements adopted as part of the Goal 5 process.

(D) If the County determines that the site plan is substantially different from the proposal approved in the Goal 5 process,

the application shall be denied or conditioned to comply with the decision adopted as part of the Goal 5 process, or the applicant may choose to apply for a Comprehensive Plan amendment whereby the original decision reached through the Goal 5 process will be reexamined based on the revised site plan.

Staff:

The applicant has submitted a plan showing the extraction area and the impact area. A detailed plan will be required before operation approval is given.

C. Clatsop County Comprehensive Plan (County-Wide Elements)

Staff:

Following are applicable Comprehensive Plan Goals and the Policies from these Goals.

Goal 1 Citizen Involvement

Staff:

All applicable Comprehensive Plan and Land and Water Development and Use Ordinance goals and standards were developed with citizen involvement. This hearing addresses the goal requirements for this application.

Goal 2 - Land Use Planning

Rural Agricultural Lands:

Agricultural lands are those lands that are to be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space.*

In land use changes involving a change from Conservation Forest Lands or Rural Agricultural Lands to Rural Lands or Development designations an Exception to the Agricultural Lands or Forest Lands Goals must be taken.*

Staff:

The site is zoned Exclusive Farm Use (EFU) with a portion of the site designated with a Flood Hazard Overlay (FHO). The site has a Comprehensive Plan designation Rural Agricultural Lands. The request does not involve a change in this

designation.

Goal 3 - Agricultural Lands

Goal:

To preserve and maintain agricultural lands.

Policies

1. The County shall provide areas for the continued practice of agriculture and permit the establishment of only those new uses which are compatible with agriculture activities.

Staff:

The site currently exists as a quarry site. Approval will allow greater protection of this resource site.

2. Existing farming communities which constitute the mainstay of the agricultural economy in the County shall be preserved by Exclusive Farm Use (EFU) zoning.

Staff:

The request does not involve a loss of land that is currently in farm use.

5. Non-farm uses permitted on EFU land shall be minimized to allow for maximum agricultural productivity.

Staff:

While this use is not considered a farm use, it will be allowed if the QMO district is approved for this site. Goal 5 Policies assure that a review is performed before a QMO district is placed on a site. The site must be protected for quarry use if it is found to be significant and there are no conflicting uses or significant Goal 5 resources that render the site unsuitable for mining.

8. The County recognizes that there is an increasing problem with elk herds on agricultural lands. In order to continue the productivity of the County's agricultural lands, the County will do the following:

a. Wildlife refuges and game management areas shall be limited. New proposals shall require a zone change and an assessment of public need and impacts of establishing additional wildlife refuges or game

management areas adjacent to agricultural activities.

b. The State Wildlife Commission shall be officially requested to resolve the existing adverse impacts on agricultural lands associated with elk, including but not limited to, one or more of the following measures:

1. revision of hunting laws to sustained management levels.
2. reduce the elk population in Clatsop County.
3. indemnify the owners for damage on their property resulting from elk.
4. pay for and install adequate fencing.

Staff:

As the site will likely not be used for farm use, damage to farm activities is unlikely. The site is in the Goal 5 Peripheral Big Game Range. See the Goal 5 and Lewis and Clark Plan policies for protection of fish and wildlife.

Goal 5 - Open Space, Scenic and Historic Areas and Natural Resources

Goal: To conserve open space and protect natural and scenic resources.

Staff:

Goal 5 provides the following Goal and Policies intended to address mineral and aggregate resources.

Mineral and Aggregate Resources Goal:

To protect and ensure appropriate use of mineral and aggregate resources of the county, while minimizing any adverse effects of mining and processing upon surrounding land uses.

Policies:

1. The County shall protect significant mineral and aggregate resources consistent with Statewide Planning Goal 5 and the process for complying with the Goal specified in Oregon Administrative Rules Chapter 660, Division 16.

Staff:

The information submitted by the applicant is intended to address the applicable requirements. If the site meets the QMO quality and quantity standards, then the site is considered Significant. The QMO provides protection as required by Statewide Goal 5

2. In making a decision whether to protect a significant mineral or aggregate site from conflicting uses, the County shall recognize that Goal 5 requires the protection of natural resources for future generations, and that the requirements of other applicable Statewide Planning Goals must be considered in any analysis of conflicting uses.

Staff:

An analysis of other applicable statewide goals is found at the end of this report. There are only a few conflicting uses within the impact area. The QMO provides development standards that must be met before start-up could begin such as hours of operation. At this time, however, the Planning Commission must analyze the existing conflicting uses against the quarry site and configure the extraction area boundary and impact area boundary accordingly.

3. The County shall maintain an inventory of mineral and aggregate resources sites. The Comprehensive Plan inventory shall consist of three parts:

   a. An inventory of "significant sites" identified through the Goal 5 process as important resources that will be protected from conflicting uses;

   b. An inventory of "potential sites" for which sufficient information concerning the location, quality, and quantity of a resource site is not adequate so as to allow the County to make a determination of significance;

   c. An inventory of "other sites" for which available information demonstrates that the site is not a significant resource to be protected.

Staff:

This list is included in the staff report. The applicant is requesting the site be moved from the Potential Sites (conditional use) list and identified as a Significant Site.

4. The location of a mineral or aggregate resource shall be identified as the site of a recoverable source of material. A resource site may consist of all or portions of a parcel, and may comprise contiguous parcels in different ownerships. Identification of a resource site need not include mineral and aggregate reserves that are irrevocable committed to other land uses which are incompatible with surface mining.

Staff:

The applicant has included a map that identifies the area to be excavated. If approved, the Extraction Area would be considered the location of the protected resource.

5. For an aggregate site to be determined significant, the resource must meet Oregon Department of Transportation specifications for concrete aggregate rock. It is the County's policy to protect the highest quality rock for future use.

Staff:

The applicant has submitted laboratory test results of the material at the site. This information submitted indicates that the material meets the QMO quality standards. These standards are the same as the ODOT specifications.

6. For an aggregate site to be determined significant, the site must possess a minimum of 250K cubic yards of minable reserves. It is the policy of the County to protect a variety of large reserves in order to serve the regional market.

Staff:

The applicant has indicated that 500,000-750,000 cubic yards of material exist at the site. This exceeds the 250,000 minimum requirement.

7. The significance of non-aggregate mineral resources shall be judged on a case-by-case basis, taking into account information concerning the commercial or industrial use of the resource, as well as the relative quality and relative abundance of the resource within at least the County.

Staff:

This site is not a source of "non-aggregate mineral". This

policy does not apply.

8. Because material source sites owned or controlled by municipal, County or state government agencies have been acquired for the purpose of maintaining the public road system, and collectively form a network of great importance, the County shall deem such sites presumptively significant. Such sites shall be analyzed along with other significant sites to establish the appropriate level of protection from conflicting uses.

Staff:
This site is privately owned. This policy does not apply to privately owned sites.

9. The County shall recognize existing surface mining operations as significant resources pursuant to Goal 5, and shall allow existing operations to continue for two (2) years without conforming to the performance standards in the zoning ordinance. Expansion beyond the limits of an existing site shall be in accordance with County zoning regulations.

Staff:
The applicant is not requesting approval to continue a quarry operation. The applicant is seeking approval to place a QMO designation on the site. This policy is not applicable.

10. The scope of an existing or "grandfathered" aggregate operations shall be established by:

    a. Authorization by a County land use approval; or
    b. The extent of the area disturbed by mining on the effective date of this ordinance; or
    c. The continuous pursuit of a specific mining plan by an operator for not less than five years.

Staff:
As discussed in the Background portion of this report, the site does not have a current county approval. The site has not been used "continuously". The applicant is seeking approval of a QMO designation. This policy is not applicable to this request.

11. In order to maintain the right to continue an existing surface mining operation and bring the County's inventory

of mineral and aggregate resources into compliance with Goal 5, an analysis of economic, social, environmental and energy (ESEE) consequences performed for an existing site shall only consider the consequences of potential conflicting uses upon current or future operations, and the consequences of mine expansion on existing or potential conflicting uses.

Staff:

This is not a request to "continue an existing surface mining operation". This policy is not applicable.

12. Sites on the "other sites" inventory shall not be protected pursuant to Goal 5.

Staff:
This site is not on the "Other Sites" list.

13. For sites on the "potential sites" inventory, the County shall review available information about mineral and aggregate resources, and if the information is sufficient, determine the site to be significant when one of the following conditions exists:

a. As part of the next scheduled periodic review;
b. When a landowner or operator submits information concerning the potential significance of a resource site and requests a Comprehensive Plan amendment;
c. When resolution of the status of a potential resource is necessary to advance another planning objective.

Staff:
The owner of the site is seeking QMO designation pursuant to policy 13.b. by submitting laboratory data and addressing the appropriate standards.

14. For each site determined to be significant, the County shall complete the remainder of the Goal 5 process of identifying conflicting uses, analyzing the ESEE consequences of the conflicting use(s), and designating a level of protection from conflicting uses. If the final decision concerning the site is to fully preserve or partially protect the resource from conflicting uses, the site shall be zoned with the Mineral and Aggregate Resources Overlay.

Staff:

The ESEE analysis and the data on the quality of the rock is intended to justify protecting this site and designating it with a QMO. The laboratory data indicates that material qualifies for QMO protection.

15. When analyzing the ESEE consequences of potential conflicts between a significant mineral or aggregate resource and another significant Goal 5 resource, the County shall consider the protection program adopted for the conflicting resource. Conflicts with other natural resources shall not be the basis for mining restrictions unless the County has included the conflicting resource on the inventory of significant Goal 5 resources, and adopted a resource protection program.

Staff:

The only identified Goal 5 resource other than the quarry is the Peripheral Big Game Range designation. The next portion of the report addresses the policies associated with Big Game.

The Lewis and Clark River is not a Goal 5 resource. The county does have criteria for the protection of riparian vegetation that would be found adjacent to the river. Specifically, a 50 buffer must be maintained between riparian vegetation and new development and uses. This would apply to the river and the creeks at the north and south of the extraction area.

The QMO development standards require the maintenance of all existing vegetation within 100 feet from the edge of all rivers and streams. This requirement can only be modified if the ESEE addresses a reduction in width. The applicant is not seeking a reduction.

All necessary state permits must be submitted before the planning department could approve a request to operate.

16. The County may consider the effects of surface mining operations on public roads and traffic. Consideration may include review of proposed routes, site distances at access points, roadway width and alignment, and level of service. The County may impose conditions or restrictions directly related to the impact created by surface mining; however, any conditions or restrictions shall not be approval criteria, and shall be applied uniformly to all road users in a manner consistent with the County's transportation plan.

Staff:

The Lewis and Clark road is within the Impact area. Impact of the use on Lewis and Clark road would be reviewed when a request to operate is submitted to the Planning Director. This office would request comment by the County Road Master. If necessary, specific access issues could be addressed as conditions of approval from the Planning Director.

17. In order to approve surface mining at a site zoned for exclusive farm or forestry use, the County shall find, as part of the ESEE analysis, that the proposed activity will not: (1) force a significant change in, or significantly increase the cost of, accepted farming or forestry practices on surrounding lands, and (2) will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

Staff:

The site is zoned Exclusive Farm Use (EFU). The area proposed for the QMO is not currently utilized for farming. Given the topography, the site is not suitable for farm uses. Access to the site is existing. This access uses an existing bridge over the Lewis and Clark River. Before the site becomes operational, a new access road and bridge is proposed by the applicant that would not run as close to the existing dwelling as the current access road.

At this time, no new structures are proposed at the site. The site is within the Lewis and Clark Rural Fire District. The site has been used as a quarry in the past. Future mining activities would be similar to those that have occurred in the past.

18. The County shall not independently apply the Mineral and Aggregate Resources Overlay to land within another County, or within a city or its urban growth boundary. The County shall seek to ensure protection of significant sites where the impact area surrounding the resource extends across jurisdictional boundaries through cooperative agreements with another County or a city.

Staff:

This site is entirely within the jurisdiction of Clatsop County.

19. The County shall require increased setbacks, insulation, screening, or similar measures as conditions of approval for any new conflicting use within an impact area surrounding a mineral or aggregate resource site when such measures are deemed necessary to resolve conflicts identified in a site-specific Goal 5 analysis.

Staff:
This is not a request for a conflicting use. This policy is not applicable.

20. The County may establish and impose conditions on operation of a surface mine when deemed necessary as a result of a site-specific Goal 5 analysis. Where such conditions conflict with criteria and standards in the Mineral and Aggregate Resources Overlay, the conditions developed through the Goal 5 analysis shall control.

Staff:
As part of this process, if the Planning Commission feels that specific concerns can only be addressed through the adoption of conditions, such conditions can be imposed.

21. As part of the ESEE analysis and decision on the level of protection to be afforded significant mineral and aggregate resource sites, the County shall determine the appropriate post-mining use of the site.

Staff:
The applicant has not proposes a post-mining use. The County must make this determination as part of the approval. This can include that the site only be used for uses permitted in the underlying zone (EFU).

22. The County recognizes the jurisdiction of the Department of Geology and Mineral Industries (DOGAMI) for the purpose of the mined land reclamation pursuant to ORS 517.750 to 517.900 and the rules adopted thereunder.

Staff:
The applicant will have to comply with all applicable DOGAMI standards when they seek approval to begin operations.

23. Unless specifically determined on a case-by-case basis, it shall be the policy of the County, pursuant to ORS

517.830(3), that DOGAMI delay its final decision on approval of a reclamation plan and issuance of an operating permit, as those terms are defined by statute and administrative rule, until all issues concerning local land use approval have been adjudicated by the County.

Staff:

This request can be made of DOGAMI. The county has no authority to require DOGAMI to comply.

24. No surface mining or processing activity, as defined by the zoning ordinance, shall commence without land use approval from the County, and approval of a reclamation plan and issuance of an operating permit by DOGAMI.

Staff:

This requires that the applicant receive approval for operation of the site. The request would be made to the Planning Department. Approval would include the requirement of a reclamation plan.

25. Land shall not be rezoned to remove the Mineral and Aggregate Resources Overlay until the mineral or aggregate resource is depleted, and the site has been reclaimed.

Staff:

This is not a request to remove the QMO zone.

Fish and Wildlife Areas and Habitats Policies.

4. To protect riparian vegetation along streams and lakes not covered by the Forest Practices Act, the County shall require a setback for non-water dependent uses.

Staff:

All potential structures are required by the Land and Water Development and Use Ordinance to be a minimum of 50 feet from the edge of riparian vegetation. One of the QMO policies requires that existing vegetation within 100 of the edge of a river or perennial stream be protected. Unless the Planning Commission reduces this distance, the 100 foot requirement is mandatory.

7. The County shall rely on the Division of State Lands' permit process, under the Fill and Removal Law, to insure that proposed stream alterations such as bridges, channelization, or filling do not adversely affect the stream's integrity or its value as fish habitat.

Staff:

When a new access is proposed, this policy would apply. This would be reviewed when a request to begin operation is submitted to the department.

8. New developments shall not restrict existing public access to rivers, streams, or lakes. New developments are encouraged to provide additional public access to rivers, streams and lakes where such access is consistent with the area's environmental characteristics.

Staff:

The site does not currently provide public access to the river.

Goal 7 - Natural Hazards

Goal:

To protect life and property from natural disasters and hazards.

Flood Hazard Policies

6. All future river or stream crossings shall be designed to provide adequate waterway openings and bridge clearance above flood flows. Existing roads and bridges that are subject to being undermined or washed out will be identified on maps for reference during emergency situations.

Staff:

The site is accessible via an existing road that includes a bridge across the Lewis and Clark river. A new bridge and access road will be proposed before operational approval is given. The bridge may need to be improved to handle heavy truck loads. New bridge construction would be required to meet applicable county and state requirements for flow, protection of fish habitat and other concerns.

7. Agriculture, forestry, open space and recreation shall be preferred uses of flood prone areas.

Staff:

Quarry and mining is not one of the listed preferred uses. Only a small portion of the site, however, is within the floodplain. The floodplain extends to a maximum of no more than 80 feet from the edge of the Lewis and Clark. The QMO zone requires that 100 feet of exiting vegetation be maintained from the edge of the river.

D. Compliance with the Lewis and Clark Community Plan

Fish and Wildlife Policies

1. Clatsop County will cooperate with governmental agencies to conserve and protect identified fish and wildlife habitat.

Staff:

The county has identified certain species as requiring Goal 5 protection. The site is within the Peripheral Big Game Range designation. The policies associated with this designation were addressed earlier in this report. The United States Fish and Wildlife Department and Oregon Department of Fish and Wildlife have been notified of this request. We have not received comments from these agencies.

2. Public and private land ownership preserves many habitat areas. There is limited regulatory power to assure that more living communities and animal species do not become rare and endangered in the future. Therefore new development should be designed and constructed so as to:

   a. maintain wherever possible a natural, vegetative buffer strip along wetlands and streams,
   b. minimize the alteration of land and vegetation, and
   c. preserve open space, including agricultural and forest lands.

Staff:

The QMO provides for protection of vegetation along rivers and streams. This buffer applies to this site. The land would be altered if mined. However, A reclamation plan is required with operational approval. This will assure the site is not left "open and unsafe".

E. Compliance with Statewide Goals

Goal 3:

Staff:

The site is currently zoned EFU. The site will maintain the EFU zoning designation before, during and after mining activities occur. Approximately half of the Extraction Area is classified as productive farm soils. Given the topography, it is unlikely this area would be used for farm use. The remainder of the site is composed of soils that are not considered productive.

Goal 4:

Applicant:

Aggregate extraction and processing operations on this site are not expected to conflict with the protection of adjoining forest lands or forest practices, or other activities necessary and appropriate for management of soil, air, water and fish resources, the provision for recreational opportunities, and agricultural uses. Mining and processing of aggregate and mineral resources are permissible uses of forest lands as specified by Goal 4 administrative rule. No aspects of the quarry's development would force a significant change in, or significantly increase the cost of accepted forest or farming practices on surrounding lands dedicated for resource use. Similarly, no aspects of the proposed operations are expected to significantly increase the fire hazard, the cost of fire suppression, or risks to fire suppression personnel.

Staff:

This site is currently zoned for farm use. While forestry is permitted in the EFU zone, this site is not a site that is used for forestry related activities. Only about 20% of the Extraction Area is composed of soils that are considered productive for forestry. The site already has an existing access. Thus the loss of forest land to a new access road should not occur. Mining activities are allowed on forest land pursuant to Goal 4. The activities allowed by the QMO are similar to those that could occur under Goal 4.

The site is isolated to a certain extent by the Lewis and Clark river and with farm uses occurring to the north and south. The site is within the Lewis and Clark Fire Protection District.

Goal 5

Applicant:

The Statewide Planning Goal Number 5, requires in part that "where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal". The goal guideline suggests that "in conjunction with the inventory of mineral and aggregate resources, sites for removal and processing of such resources should be identified and protected".

The Goal 5 rule specifies the requirements and procedures local government must follow to comply with Goal 5. Goal compliance involves six basic steps:

1. Identify a resource's location, quality and quantity;
2. Determine the resource's significance;
3. Identify conflicting uses;
4. Analyze the economic, social, environmental and energy consequences of conflicts;
5. Determine the level of protection for the resource; and,
6. Implement a program to protect significant resources.

The purpose of this process is to complete the Goal 5 analysis and protect the Lewis & Clark quarry and processing site for future continued use.

Staff:

Goal 5 is designed to identify and then protect where appropriate a variety of resources. Rock and mineral resources are a Goal 5 category resource. The request is to recognize this site as a significant Goal 5 site and provide it with the QMO district protection. If the site is found to be significant and there are no other significant resources, the site must be protected unless there are enough conflicting uses that render the site unsuitable for the proposed use. The submittals from the applicant and this staff report address compliance with the applicable requirements.

Goal 6:

Applicant:

The environmental effects of the quarry operation have been discussed above. Use controls will be required to protect adjoining watercourses. DEQ stormwater permits should be required. DEQ air quality and water quality permits will also be required for any rock processing operations.

Staff:

The site will have to comply with all DEQ and Oregon Department of Fish and Wildlife (ODFW) requirements regarding the drainage and impacts on the river. Operational standards are provided by the QMO text. These standards must be addressed by the applicant before the quarry operations can begin.

Goal 7

Staff:

The hazard associated with the site is the flood plain. This hazard is associated with the river. The buffer required by the QMO standards exceeds the hazard area. Other than a new access road, activities will occur outside of the flood plain.

Goal 12:

Applicant:

Statewide Planning Goal 12 requires local governments "to provide and encourage a safe, convenient and economic transportation system". The Lewis & Clark quarry is a potential source of aggregate materials for a wide range of City, County, State and Federal street and highway construction and repair projects.

Staff:

The information provided by the applicant indicates that the material will meet QMO quality standards. This material could be used for the development of future roads including a Seaside to Warrenton/Astoria Bypass.

Goal 13:

Applicant:

The Lewis & Clark quarry by virtue of its strategic location promotes energy conservation. It is far most efficient to utilize rock from this centrally located source than to import rock form outlying locations within Clatsop County or from areas outside of our County.

Staff:

This site will be the only QMO site in this vicinity. As such, it could provide material for projects in the vicinity

rather than having to truck rock in from greater distances which results in higher energy consumption and costs.

III Options

Following is an outline that reflects potential actions the Planning Commission can undertake. The outline is not intended to address every issue but rather to serve as a guide upon which the commission can act.

1. Deny the request.

2. Approve the request.

3. Approve the request with conditions.

4. Continue the hearing.

Planning Commission Recommendation:

By unanimous motion on 10/18/94, the Clatsop County Planning Commission recommended approval of the Quarry and Mining Overlay zoning designation for the Nygaard-Lewis & Clark quarry site and the designation of this site as a Significant Goal 5 rock resource site based upon staff report findings and the following conditions of approval:

1. The applicant shall receive all necessary county, state and federal approvals prior to commencement of quarry related activities.

2. The extraction and impact areas shall be configured as they are represented in the staff report.

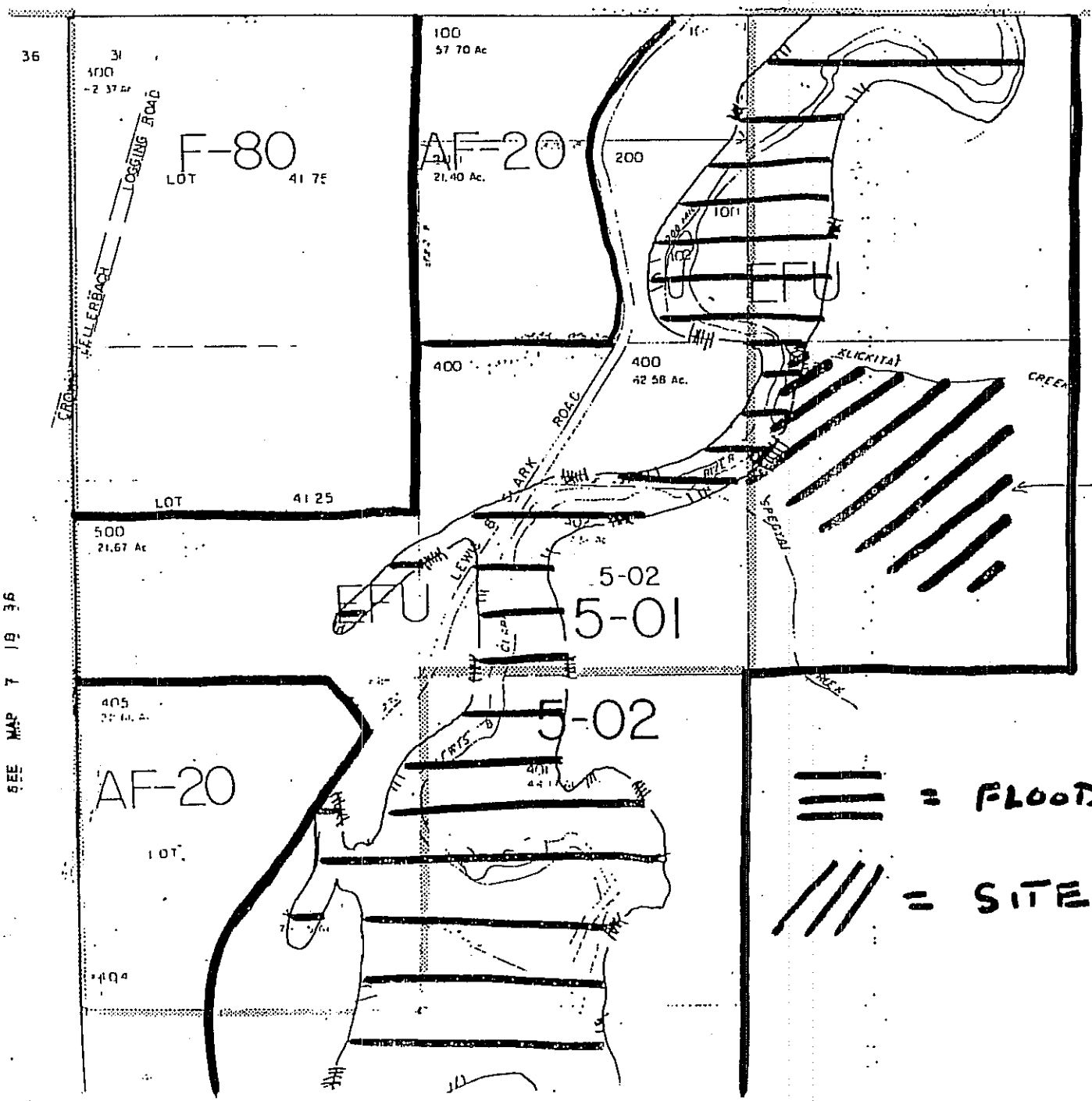
3. A buffer of 100 feet of existing vegetation shall be maintained on both sides of Spegyai Creek and both sides of Klickitat Creek.

4. A buffer of 100 feet of existing vegetation shall be maintained on the east side of the Lewis and Clark River except as required for anew access road.

5. No quarry related activities shall occur within the buffer areas except as required for a new access road.

6. A new access to the site shall meet applicable county, state, and federal requirements.

7. The post mining use of the site shall be a use that is permitted in the underlying zone.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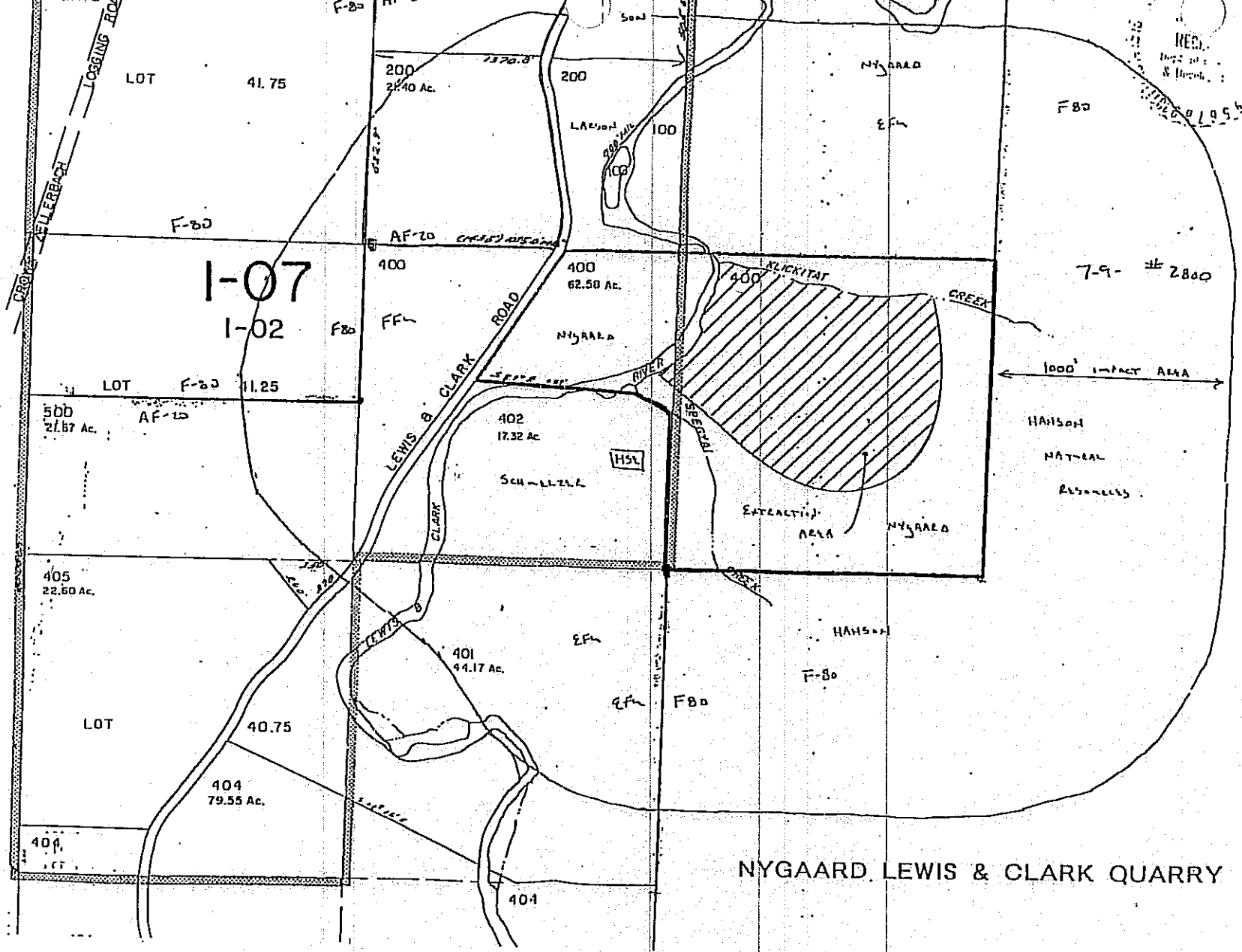
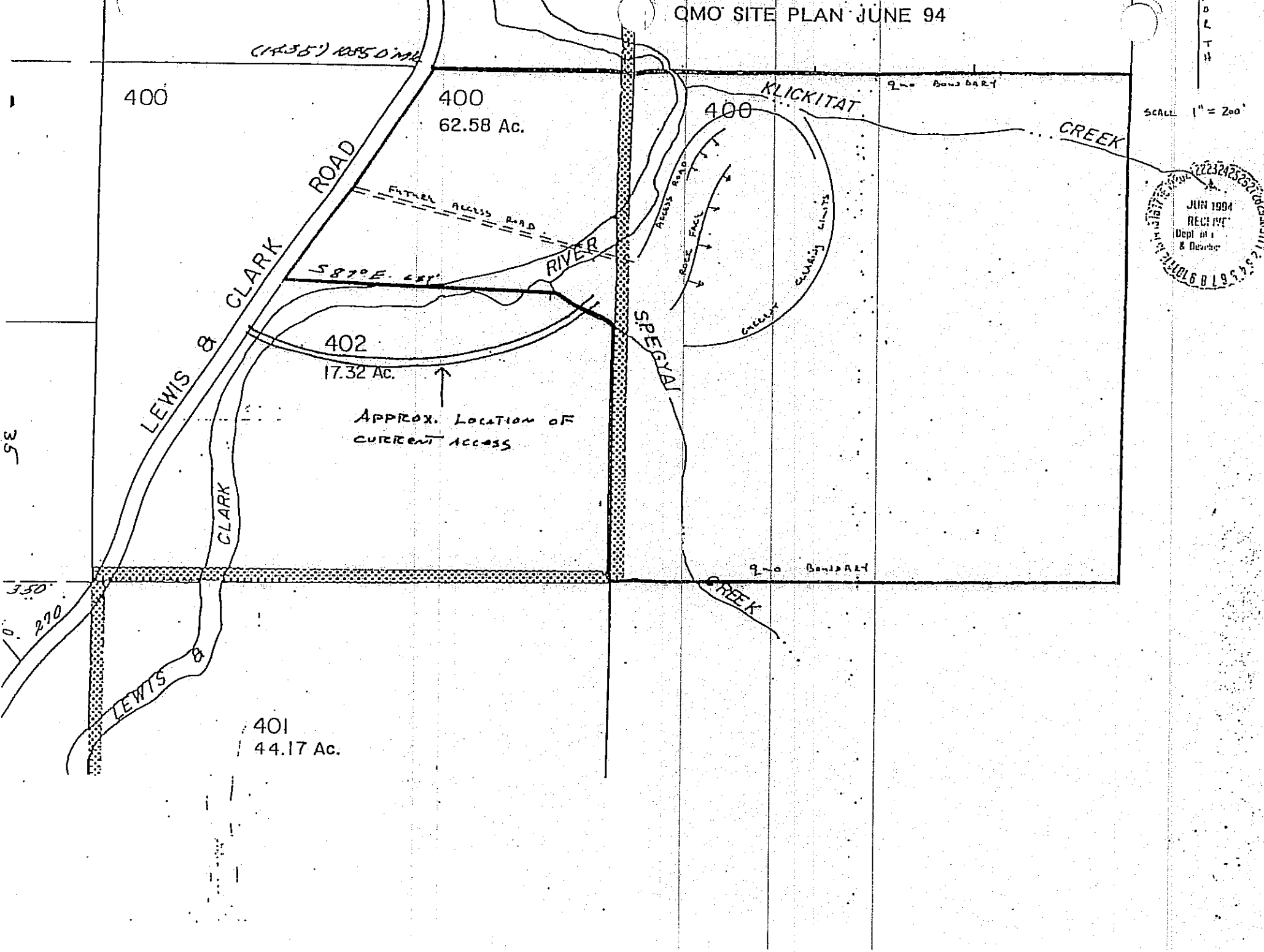


NYGAARD LEWIS & CLARK QUARRY

HSE = House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400
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400
KLICKITAT
CREEK
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JUN 1994
RECEIVED
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& Develop
LEWIS & CLARK ROAD
FATHER ACCESS ROAD
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RIVER
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ROCK FALL
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402
17.32 Ac.
APPROX. LOCATION OF CURRENT ACCESS
SPEGYAI
CLARK
LEWIS &
CREEK
350'
270'
401
44.17 Ac.

May 24, 1994

Project EADX-94-0272
Report 04-054-1647

Mr. Don Lampi
Nygaard Logging, Inc.
P. O. Box 100
Warrenton, Oregon 97146

Dear Mr. Lampi:

Re: L. A. Abrasion, Sodium Soundness, Oregon air Degradation and Sediment Height tests performed on one (1) aggregate sample received in our laboratory on May 13, 1994.

Sample Identification: #1 (Crushed down from 4" minus basalt)

L. A. Abrasion (AASHTO T-96)

Sieve Size	Percent Wear
¾" - ½"	19.8
½" - ⅜"	

Sodium Soundness (AASHTO T-104)

Sieve Size	Weighted Percent Loss
# 4	2.9
# 8	4.5
# 16	10.8
# 30	15.4

Oregon Air Degradation (OSHD-208)

Sediment Height = 3.2"

Passing #20 = 36.0 %

If you have any questions or require additional testing please do not hesitate to call me at (800) 783-6985 or (503) 289-1778, extension 26, or Jack Callahan at extension 49.

Sincerely,

William M. Weyrauch, P.E.
Vice President/Principal Engineer

Jack Callahan, Supervisor
Soils Laboratory

mli/jc:mhh

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July 18, 1994

Dave Carpenter
Department of Planning and Development
Clatsop County
Post Office Box 179
Astoria, Oregon 97146

Re: Quarry & Mining Overlay Public Hearings

This letter is intended to be a follow-up upon our counter discussion of this morning. It is my understanding that your tentative Planning Commission public hearing schedule includes QMO public hearings on September 6, 1994 for the Nygaard-Olney quarry and the Riekkola-Olney quarry. I also understand that the Nygaard-Lewis & Clark quarry QMO public hearing will be scheduled for the next available Planning Commission date after 9/6/94.

All three of these rock quarry sites meet the minimum ordinance quantity and quality standards listed in Section 4.424 of the Land and Water Development and Use Ordinance for recognition as "Primary Sites Requiring QMO Protection". Please reference in your public notices for these upcoming Planning Commission and Board of Commissioners public hearings that the ongoing QMO review process will provide for each of these three rock quarry sites to be added to Clatsop County's Goal 5 list of "Primary Sites Requiring QMO Protection".

Please insert the following supplemental information upon rock quality testing into the file for the Nygaard-Lewis & Clark quarry:

> May 24, 1994 rock test results from the laboratories of Braun Intertec Northwest, Inc. document that the rock samples from the Nygaard-Lewis & Clark quarry satisfy the zoning ordinance QMO zone Section 4.424 quality standards. Section 4.424 requires that an aggregate resource meet at least two of the three listed quality test standards (Abrasion, Oregon Air Degradation and Sodium Sulphate Soundness). Test results show an abrasion loss of 19.8% compared to the maximum ordinance standard of 35% (L.A. Abrasion test; AASHTO T-96). Test results show a sodium soundness loss result of 15.4% compared to the maximum ordinance standard of 17% (Sodium Soundness; AASHTO T-104). Test results show an air degradation loss of 36% compared to a maximum ordinance standard of 35% (Oregon Air Degradation; OSHD-208). This 1% difference is

attributed to "iron scaling" that typically occurs on surface rock that has been exposed to the atmosphere for a prolonged period of time; Braun Intertec lab personnel suggested that this test result would likely improve as deeper, subsurface rock was removed.

Thank you for your assistance in the Goal 5 QMO site protection process. Please contact me if you would like to discuss these three quarry sites in further detail or if you would like to schedule a staff site visit at the time you are preparing your staff reports for the upcoming QMO hearings.

Sincerely,

Don Lampi

Don Lampi
Land Use Consultant
1441 South Main Street
Warrenton, OR 97146
(503) 861-2420

RECORDED
FEB 24
DOC # 3502005
REEL #

IN THE BOARD OF COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

ORDINANCE NO. 95-4

(AN ORDINANCE AMENDING THE
(CLATSOP COUNTY COMPREHENSIVE
(PLAN/ZONING MAP AND TEXT AS ADOPTED
(BY THE BOARD OF COMMISSIONERS
(ADOPTING CERTAIN FINDINGS WITH
(CONDITIONS AND RESCINDING
(INCONSISTENT PROVISIONS

The Board of County Commissioners of Clatsop County, Oregon ordains as follows:

SECTION 1. SHORT TITLE.

This ordinance shall be known as the Nygaard Olney QMO Comprehensive Plan and Zoning Map and Text Amendment.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon recognizes the need to revise and amend the Clatsop County Comprehensive Plan and Zoning Map and Text. In the interest of the health, safety and welfare of the citizens of Clatsop County and pursuant to State law, the Board of Commissioners hereby determines the necessity of amending the said Clatsop County Comprehensive Plan/Zoning Map and Text.

The Board of County Commissioners determines and takes notice that the adoption procedure for this ordinance complies with the Post Acknowledgement rules of the Land Conservation and Development Commission. The County Planning Commission has sought review and comment and has conducted the public hearing process pursuant to the requirements of ORS 215.050 and 215.060. The Planning Commission

held a public hearing on October 18, 1994. The Board received and considered the Planning Commission's recommendations on this request and held a public hearing on this ordinance pursuant to law on February 8, 1995.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall not substitute for nor eliminate the necessity for conformity with any and all laws or rules of the State of Oregon, or its agencies, or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supersede, control and repeal any inconsistent provision of the Clatsop County Land and Water Development and Use Ordinance, as amended, or any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effective 30 days following adoption of this Ordinance.

SECTION 7. ADOPTION CLAUSE.

The Board of Commissioners hereby adopts the Nygaard Olney QMO Comprehensive Plan and Zoning Map and Text Amendment with conditions, set forth in Exhibit "A" attached hereto and by reference herein made a part of this ordinance in its entirety.

ADOPTED this 22 day of February, 1995.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By Geoffrey Stone
Geoffrey Stone, Vice Chair

By Helen Kenyon
Recording Secretary

Effective Date: _____

APPROVED AS TO FORM: _____
Clatsop County Counsel

EXHIBIT "A"

To: Clatsop County Planning Commission

From: David Carpenter, Senior Planner

Applicant: Don Lampi and Martin Nygaard

Owner: Martin Nygaard

Location: Olney

Legal Description: T7N-R9W-Sec12-TL202 and 902

Comp Plan Designation: Conservation Forest Lands

Zoning: Forest-38 (F-38)
Geologic Hazard Overlay (GHO)

Request: Place a Quarry and Mining Overlay Designation Over the two parcels and designate the site as a significant Goal 5 Mineral and Aggregate site.

Date: September 30, 1994

I Listed below are the applicable Plan and Ordinance requirements and standards that will be used to review this application.

A. Clatsop County Comprehensive Plan (County-Wide Element)

1. Goal 1
2. Goal 2
3. Goal 3
4. Goal 4
5. Goal 5
6. Goal 7

B. Lewis and Clark Community Plan

1. Fish and Wildlife Policies

C. Clatsop County Land and Water Development and Use Ordinance 80-14

1. Article I
   Section 1.010-1.050
2. Article II Procedures
   Section 2.140 (Type IV Procedure)
3. Article III Zones
   Section 3.530
4. Article IV Special Districts
   Section 4.030

Section 4.400
4. Article V Permit and Issue Determinations
Section 5.300-5.302
Section 5.700-5.735
5. Article VI Public Deliberations and Hearing
Section 6.118
6. Article X General Provisions
Section 10.110-10.150

D. Standards Document

1. Sections 1-3
2. S3.700-S3.708
2. S4.400-S4.404
3. S4-500-S4.504

E. Statewide Planning Goals and OAR's

1. Goal 1
2. Goal 2
3. Goal 3
4. Goal 4
5. Goal 5
6. Goal 6
7. Goal 7
8. Goal 12
9. Goal 13
10. OAR 660-05

II Findings

A. Background and Location

Applicant (Background):

The M. Nygaard Logging Olney (Olney hereafter) Rock Quarry is located on an overall ownership of about 80 acres to the adjoining north of Highway 202 about one-half mile to the east of Olney. The quarry is located on Clatsop County Tax Lots 7-9-12 #902 and 7-9-13 #202. The active quarry area covers about 20 to 30 acres of the overall ownership. The quarry site has been continuously operated as a commercial rock source since 1979.

There have been two separate Clatsop County land use approvals for quarries on this site and at one time there were two active DOGAMI permits on this property. These two DOGAMI permits have been recently consolidated into a single operating permit. On July 6, 1979, Jim Parker obtained a letter permit from the Clatsop County Department of Planning and Development authorizing the establishment of a mining

operation on the subject property (copy attached). In 1979, this property was owned by the Heinze family. Mining was a permitted use in the County's General Farm Use and Forestry zone at the time of this approval. The letter permit authorized mining operations on the Heinze property on the north side of State Highway 202 provided that activity setbacks of 500 feet were maintained from the west property line and the Heinze house which was on the south side of Highway 202. Mr. Parker proceeded with the development of a commercial quarry that supplied pit-run and soapstone fill material to various markets in Clatsop County. The Parker quarry was authorized under DOGAMI permit #040052. The quarry site has been continuously used since 1979. Annual excavation volumes have typically ranged from 5000 to 10,000 cubic yards per year.

In October of 1985, Nygaard purchased the Heinze property. At the time of this purchase, Nygaard allowed Jim Parker to continue his ongoing mining operation of the site. Nygaard also initiated their own quarry operation to the east of the Parker pit and obtained DOGAMI permit #04-0066.

On July 11, 1986, Nygaard obtained conditional use approval from Clatsop County for a second, overlapping quarry operation on their property. This conditional use approval covered an area of about 15 acres in the southeast corner of the ownership that overlapped Parker's 1979 County approval. The Nygaard 1986 conditional use approval was obtained to allow separate DOGAMI permitting for the two quarries which were, at the time, operated by different parties. Since 1986, Nygaard has continuously utilized the quarry area on the southeast corner of this site as a source for pit run, riprap and crushed aggregate material. In recent years the Olney Quarry has supplied significant quantities of crushed rock products to the Clatsop County Road Department for various construction and repair projects.

Nygaard has now assumed operation of the Parker pit and placed all quarrying activities on the entire ownership under the control of DOGAMI permit #04-0066. This consolidation of DOGAMI permits does not effect the two existing and valid land use approvals that have been obtained from Clatsop County. The western portion of the quarry is being developed in conformance with the setback restrictions of the 1979 letter authorization and the eastern portion of the quarry is being operated in conformance with the stated conditions of the 1986 approval.

Applicant (Location):

The Olney Quarry is located on approximately 74 acres to the adjoining north Highway 202 about one-half mile to the east of Olney. The quarry is located on Clatsop County Tax Lots 7-9-12

"Significant", the site must be protected unless there are enough conflicting uses in proximity to the site such that the site could not be used as a quarry. Also, if there are other Goal 5 sites in the vicinity, the site must be analyzed for its impacts on the other Goal 5 site. Other than Big Game issues, there are no other Goal 5 issues associated with the site.

There are two existing county approvals to mine on the parcels. The "Parker approval" was issued in 1979 when the use was permitted in the zone. The "Parker approval" allows commercial mining activities on the entire 80 acre parcel after a 500 foot setback is taken from the west property line and a 500 foot setback is taken from the residential uses to the south. These boundaries are based upon the 7/6/79 letter permit to Jim Parker signed by Curtis J. Schneider of the Clatsop County Department of Planning and Development (attached).

The Nygaard Conditional use approval was issued in 1986. This County approval area overlaps the original mining area as approved for Jim Parker in 1979.

This Quarry and Mining Overlay amendment, as proposed, would allow the applicant to continue, and expand, its existing commercial mining operations on the subject property provided that these mining activities are conducted within the boundaries outlined as the QMO "extraction area" on the map identified as "Page D37" of the 9/30/94 Planning Department staff report. Any "expansion" of mining activities beyond the boundaries of this identified "extraction area" would require a future Clatsop County QMO amendment or conditional use approval.

This determination is based on the Goal 5 Policies of the Comprehensive Plan.

B. Definitions

CONFLICTING USE -- A use authorized in the underlying zone, which, if allowed, could adversely affect operations at a significant mineral and aggregate resource site, or could be adversely affected by mining or processing activities at a significant site. For purposes of this chapter, another Goal 5 resource located on or adjacent to a significant site may be considered a conflicting use if that resource could be adversely affected by mining or processing at the site.

ESEE ANALYSIS -- The analysis of economic, social, environmental and energy consequences of (a) allowing mining on a significant site, and (b) allowing conflicting uses to

#902 and 7-9-13 #202. The active quarry area covers about 20 to 30 acres of the overall ownership. The quarry site has been continuously operated as a commercial rock source since 1979.

The location of this quarry in the northwest corner of the county immediately adjoining Highway 202 makes it an ideal site for supplying rock to the Astoria/Warrenton area. In recent years the quarry has been utilized as one of the major rock supply sources for the Clatsop County Road Department.

Applicant (Purpose):

The purpose of this process is to place the Olney Rock Quarry in the recently established Clatsop County Quarry and Mining Overlay Zoning district. This overlay will provide land use protection for this valuable commercial rock resource.

Applicant (Proposed Mining Activities):

The site is being actively mined under the provisions of a State Department of Geology and Mineral Industries permit at this time. The quarry is one of the major commercial extraction and processing sites in Clatsop County.

Staff:

Martin Nygaard has applied for a Quarry and Mining Overlay (QMO) District for a portion of land Described as T7N-R9W-Sec12-TL202 and 902. This parcel is on the north side of Highway 202 approximately .5 miles east of Olney. The subject parcel is currently zoned Forest-38 (F-38) and is identified as mass movement topography. These zoning designations would remain. The QMO District would be added to the parcels.

The QMO overlay provides the following purpose statement:

> The purpose and intent of the Quarry and Mining Overlay District (/QMO) is:
>
> (A) To allow the development and use of mineral and aggregate resources;
> (B) To provide uniform standards for extraction and processing of mineral and aggregate resources;
> (C) To balance conflicts between mining operations and new and existing surrounding conflicting uses;
> (D) To ensure the rehabilitation and restoration of mining sites; and
> (E) To protect mineral and aggregate resources for future use consistent with Comprehensive Plan goals and policies and Statewide Planning Goal 5.

The Planning Commission has to determine if the site merits protection as a Goal 5 resource. If the site is found to be

displace mining on a significant site. Based on the results of the ESEE analysis, the County may determine a level of protection for the resource, and implement a program to achieve the designated level of protection.

EXTRACTION AREA -- The area within which mineral and aggregate extraction, processing and storage may take place under the provisions of this Chapter (see Appendix A).

IMPACT AREA -- An area determined on a case-by-case basis through the ESEE analysis, within which sensitive uses are limited or regulated (see Appendix A).

SENSITIVE USE -- A conflicting use or structure considered sensitive to dust, odor, vibration and/or noise, such as a residence, school, park or hospital. Industrial, agricultural and forestry activities are not sensitive uses unless the activity includes an accessory residential use.

C. Clatsop County Land and Water Development and Use Ordinance.

Staff:

Following are applicable sections from the QMO zone text followed by applicant and/or staff response.

Section 4.406. Application of Overlay Zone. Any conflicts between the provisions of this Chapter and the provisions of other chapters of this Ordinance, Comprehensive Plan Goals and Policies and the Statewide Planning Goals shall be resolved through the ESEE analysis.

The Quarry and Mining Overlay Zone consists of two distinct areas; the Extraction area and the Impact area.

(A) EXTRACTION AREA. The mineral and aggregate extraction area shall be applied to any site where mining will be permitted and which has been identified as a significant resource area in the Comprehensive Plan Inventory or through the QMO Overlay Zone designation procedure, outlined in Section 5.700. The area may consist of one or more tax lots or portion(s) of single tax lots, and may be applied to contiguous properties under different ownership. The size of the Extraction Area shall be determined by the Goal 5 process, but between any existing Sensitive Use and the extraction area boundary a general distance of 1,000 feet shall be applied. The exact distance may be varied through the planning process.

(B) IMPACT AREA. The mineral and aggregate Impact Area shall be applied to properties or portions of properties adjacent to and immediately surrounding an Extraction Area. The width of the Impact Area shall be determined through the ESEE analysis prior to application of the QMO Overlay Zone, based on the type of mineral or aggregate resource to be extracted as well as physical features of the area which may cause a larger or smaller area to be affected. The minimum width of the impact area shall be 1,000 feet from the Extraction Area boundary unless a reduced distance is justified, based on the ESEE analysis (see example in Appendix A).

Staff:

Following is the applicants ESEE analysis, discussion of conflicting uses, discussion of the impact area and a conclusion by the applicant.

Applicant (ESEE):

The Goal 5 rule (OAR 660-16-005(2)) requires that if conflicting uses to the resource are identified, the economic, social, environmental and energy (ESEE) consequences of the conflicts must be determined. "Both the impacts on the resource site and on the 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."

There is a seasonal drainage that runs in a north-to-south direction through the middle of the property at the base of a deep ravine. This drainage has seasonal flows during the winter. The area has not been identified as a significant Goal 5 freshwater wetland. The area has not been placed in the County's Lake and Wetland Overlay zoning district. This natural draw has been used as an overburden fill area. In the future, this overburden fill may be extended further to the north with appropriate permitting.

Nygaard has obtained a DEQ General Storm Water Permit which addresses issues related to rainwater runoff collection and handling. This permit establishes procedures for the monitoring of runoff waters and the handling of discharges into adjoining water courses. The quarry operation can be conducted in a manner that is fully compatible with this potential Goal 5 resource.

The Olney quarry site contains a valuable aggregate resource that merits Goal 5 protection. All other Goal 5 resources have

been examined and protected by a program of avoidance and use controls.

No Goal 5 conflicts have been identified for this site.

Applicant (Impact Area):

The Goal 5 rule (OAR 660-16-0002) requires identification of an impact area itself. The impact area is an area in which identified conflicting uses may adversely affect the resource. Although impact area is not defined in either the goals or in the Goal 5 rule, the impact area for a mineral and aggregate resource site must be the area which includes uses which could adversely affect the resource, but also the area including those uses which could be affected by the presence of a significant resource. The attached impact area map shows the boundaries of the Olney quarry operations and an impact area that extends 1000 feet beyond the perimeter of this quarry.

Noise, dust, odor and blasting effects typically have the potential to adversely effect surrounding properties in the immediate proximity to a quarrying operation.

The quarry operation utilizes an existing paved road approach onto Highway 202 that is in excellent condition and which provides safe highway access for existing and proposed traffic volumes.

Applicant (Potential Conflicting Uses):

Adjoining lands to the north, east and west are zoned for forest resource use. Lands to the south are zoned for rural residential and exclusive farm use. There is one house (Heinze) to the south approximately 700 feet from the active quarry area. To the west, properties owned by the Olney Grange and the Olney Community Church are located on the outer limits of the 1000 foot impact area; structures on these lands are just beyond the 1000 foot boundary. The Olney School is located further to the west. Existing zoning will limit future new residential or public developments within the impact area since the majority of the surrounding lands are zoned for forest or agricultural resource use.

The Heinze dwelling is within 1000 feet of the active quarry area. The dwelling is located on the opposite side of Highway 202 from the quarry and is well screened from the quarry use.

Applicant: (Conclusion)

Distance, topography and existing vegetation effectively screen the existing land uses on surrounding properties from

the on-going quarrying activities at the Olney site. Future quarry activities will be moving away from these existing uses. No significant use conflicts have been identified.

Staff:

There are two dwellings in the impact area. T7N-R9W-Sec13-TL300 is owned by LeClair while T7N-R9W-Sec13-TL200 is owned by Heinze et.al. Staff believes that the Heintz property is being bought by Larry Cave. Based on the information submitted by the applicant, The Heinze property is approximately 800 feet from the Extraction Area while the LeClair dwelling is approximately 600 feet from the Extraction Area.

The dwellings are currently buffered from the proposed extraction are by trees on both the applicant and home owner sites. The Nygaard CUP required a 75-100 foot buffer be maintained between the extraction areas and the Highway. Except for the access road into the site, a buffer is currently in place although staff can not verify the width. Both dwellings are on the south side of Hwy 202 while the quarry is on the north side of Hwy 202.

There is the potential of three more dwellings on the land that is zoned RA-2 and within the Impact Area to the southwest of the site. Within the Impact Area to the north, there is the possibility of one more dwelling within the F-80 zoning. Property to the east is already developed with a dwelling which is sited outside the Impact Area. The property to the south is zoned for resource use and currently has a dwelling. This dwelling is within the Impact Area and identified as the Heinze/Cave dwelling.

A seasonal drainage runs through the active quarry area. Portions of this rainwater collection system are culverted in the active mining area and one culvert outfall empties with a 30 to 40 foot drop to the floor of quarry. The Oregon Department of Fish and Wildlife (ODFW) has determined that this seasonal drainage does not serve as a viable fish habitat area. This seasonal drainage is not a perennial stream and it does not qualify for listing as a Class I or Class II stream. Since this is not a perennial stream, no buffers are required by the QMO development standards.

DOGAMI requires the operator to have a Department of Environmental Quality (DEQ) stormwater runoff permit as part of the operational requirements. The applicants have this approval. Oregon Department of Fish and Wildlife (ODFW) and DEQ have been given notice of this request.

County records indicate that there are no water rights located in the Extraction or Impact Areas.

The Browning quarry is located immediately to the east of the site but is not a Goal 5 site. Activities at the Browning site are similar to those at the Nygaard site. No conflict is expected as a result of the neighboring quarry.

The site currently accesses onto Highway 202. This is the only access to the site. ODOT has been given notice and has not commented.

The site is in an area designated as Peripheral Big Game Range. The Goal 5 Policies associated with this designation are discussed later in this report.

Section 4.424 Determination of Significance. Only sites deemed significant shall be designated with a QMO. The following criteria shall be used in determining significance:

(A) Significant Aggregate Resources. An aggregate resource shall have at least 250,000 cubic yards of reserve and meet at least two of the following minimum requirements:

(1) Abrasion: Loss of not more than 35% by weight;

(2) Oregon Air Degradation: Loss of not more than 35% by weight;

(3) Sodium Sulphate Soundness: Not more than 17% by weight.

(B) Other mineral resources. Significance of non-aggregate resources shall be determined on a case-by-case basis after consultation with DOGAMI.

Applicant (Quality):

Crushed aggregate products from this source have been used by the Clatsop County Road Department and other public and private commercial users for a number of years. This site produces an excellent quality of rock. Rock quality testing reports from Carlson Testing, Inc. are attached.

Applicant (Quantity):

The quantity of the rock source is estimated to be 500,000 to 750,000 cubic yards.

Applicant (Conclusion):

This large commercially developed rock reserve at a strategic location is a unique resource that is of significant economic value to Clatsop County.

The Olney quarry is a significant resource by virtue of its location, quality, quantity and established development that should be protected on the inventory of significant Goal 5 resources in the Clatsop County Comprehensive Plan.

Staff:

The applicant estimates the quantity of rock to be approximately 2 to 3 times the minimum amount necessary to qualify as a significant site. The minimum number of cubic yards requires is 250,000.

The Laboratory data submitted by the applicant indicates that the material meets the three quality specifications listed in the above standard.

Following is a list of Quarry sites separated into one of three classifications. This request includes placing this site on the Goal 5 list of sites requiring QMO protection.

Classification of County Mineral and Aggregate Sites*

Primary Sites Requiring QMO Protection

1)	Clatsop County - Clifton	T8N R7W S17	rock
2)	Clatsop County - Big Creek	T8N R7W S29 SW	gravel
3)	Howard Johnson - US 101	T5N R10W S4	rock
4)	Bayview Transit Mix - US 101	T5N R10W NW9 SW4	basalt

Primary Sites Requiring Conditional Use Approval

1)	George Ordway	T5N R10W S14	basalt
2)	Teevin Bros. Logging	T8N R6W S27 NW	rock
3)	Daren Berg, Humbug Rock	T5N R8W S22	rock
4)	M. Nygaard Logging	T7N R9W S31 NE	rock
5)	A. Riekkola	T7N R8W S18	basalt
6)	Tagg	T7N R10W S3	sand
7)	Horecny	T5N R9W S23	rock

Other Sites

1)	Clatsop County (Anderson Rd - Brownsmead)	T8N R7W S2 SW	clay
2)	Howard Johnson	T5N R10W S4 NW	rock
3)	Oregon State Forestry Dept.	T4N R9W S14,23 NW	rock

4)	Oregon State Hwy. Division	T5N R9W S16,17	basalt
5)	Oregon State Hwy. Division	T5N R8W S25 NW	basalt
6)	McClean Logging	T7N R8W S28	basalt

(NOTE: The Goal 5 background report includes a listing of additional "Other Sites" including the Nygaard-Olney quarry.)

Staff:

The Nygaard Olney quarry has been listed by Clatsop County as a "Goal 5 - Other Site" and the property owner has participated in the QMO planning process and requested the listing of the Olney quarry as a "Primary/Significant" Goal 5 Site." Approval of this QMO amendment will include recognition of this quarry as "Primary/Significant" Goal 5 site.

Section 4.414. Development Standards - Extraction Area. A development plan shall be submitted to the County Planning Department for any activity allowed in Section 4.412. The development plan shall provide the necessary documents, permits, and maps to demonstrate compliance with the standards and requirements listed below.

Staff:

As per sections 4.414, 4.416 and 4.418, the applicant for a QMO designation does not need to show compliance with the following standards at this time. As discussed in the Background portion of this report, compliance with these standards is only required before expansion can occur. When this occurs, the applicant must responded to these standards and receive planning director approval prior to commencement of operations. The following operational standards are provided, however, for your information.

(A) Screening and Buffering:

(1) An earthen berm and buffer of existing or planted trees or vegetation shall be maintained to fully screen the view of any mineral and aggregate activity and all related equipment from any public road, public park, or residence within 1,000 feet. Where screening is shown through the ESEE analysis to be unnecessary because of topography or other features of the site, the screening requirements may be waived by the Planning Director.

(2) Sight obscuring fencing or approved barrier type shrubs shall be required to eliminate any safety hazards that use of the site may create. Fencing, if required, shall be sight obscuring and a minimum of 6 feet high.

(B) Access:

(1) All private access roads from mineral and aggregate sites to public roads shall be paved or graveled. If graveled, the access road shall be graded and maintained as needed to minimize dust.

(2) Improvements of fees in lieu of improvements of public roads, County roads and State highways may be required when the Planning Director or hearings body, in consultation with the appropriate road authority, determines that the increased traffic on the roads resulting from the surface mining activity will damage the road sufficiently to warrant off-site improvement. If the fee in lieu of improvements is required, the amount of the fee shall reflect the applicant's pro-rated share of the actual total cost of the capital expenditure of the road construction or reconstruction project necessitated by and benefiting the surface mining operation. Discounts for taxes and fees already paid for such improvements, such as road taxes for vehicles and for property already dedicated or improved, shall be applied.

(3) Any internal road at a mineral and aggregate site within 250 feet of a Sensitive Use shall be paved or graveled, and shall be maintained at all times to reduce noise and dust in accordance with County or DEQ standards specified in the ESEE analysis.

(4) An effective vehicular barrier or gate shall be required at all access points to the site.

(C) Hours of Operation:

(1) Blasting shall be restricted to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. No blasting shall occur on Saturdays, Sundays, or any recognized legal holiday.

(2) Mineral and aggregate extraction, drilling, processing and equipment operation located within 1,000 feet or as established by the ESEE analysis of any Sensitive Use is restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturday. All other sites are limited to operating hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday. No operation shall occur on Sundays or recognized legal holidays.

(3) An increase in operating time limits shall be granted for all activities except blasting if:

(a) Three are no Sensitive Uses within 1,000 feet of the mining site; or if

(b) There are Sensitive Uses within 1,000 feet, the increased activity will not exceed noise standards

established by the County or DEQ; and

(c) The operator shall notify the owners and occupants of all Sensitive Uses within 1,000 feet or the distance established by the ESEE analysis by first class mail which is mailed at least 96 hours prior to the date and approximate time of the activity for which the operator receives an exception.

(4) The operating time limits may be waived in the case of an emergency as determined by the County governing body.

(D) Environmental Standards:

(1) DEQ Standards. Mineral and aggregate extraction, processing and other operations shall conform to all applicable environmental standards of the County and State. Any crusher, asphalt, concrete, ready-mix or other machinery shall submit an approved DEQ permit(s) at the time of development plan application.

(2) DOGAMI Standards. Mineral and aggregate extraction, processing, other operations and site reclamation shall conform to the requirements of the Department of Geology and Mineral Industries (DOGAMI).

(3) Permits Required. Mining shall not commence until all applicable State and Federal permits, if any, are provided to the County.

(E) Equipment Removal:

All surface mining equipment, machinery, vehicles, buildings, man-made debris and other material related to the mineral and aggregate activity shall be removed from the site within 30 days of completion of all mining, processing and reclamation, except for structures which are permitted uses in the underlying zone.

(F) Performance Agreement:

(1) The operator of a mineral and aggregate site shall provide the County with annual notification of DOGAMI permits.

(2) Mineral and aggregate operations shall be insured for $500,000.00 against liability and tort arising from production activities or operations incidental thereto conducted or carried on by virtue of any law, ordinance or condition, and such insurance shall be kept in full force and effect during the period of such operations. A prepaid policy of such insurance which is effective for a period of one year shall be deposited with the County prior to commencing any mineral and aggregate operations. The owner of operator shall annually provide the County

with evidence that the policy has been renewed.

(G) Significant Resource Area Protection:

Conflicts between inventoried mineral and aggregate resource sites and significant fish and wildlife habitat, riparian areas and wetlands, and ecologically and scientifically significant natural areas and scenic areas protected by the Clatsop Plains Community Plan or other provision of the County Comprehensive Plan, shall be balanced as determined by the site-specific ESEE analysis.

(H) Site Reclamation:

A reclamation plan shall be submitted concurrently with the development plan required in Section 4.418. The reclamation plan shall include a schedule showing the planned order and sequence of reclamation, shall assure that the site will be restored or rehabilitated for the land uses specified in the underlying zone consistent with the site specific Goal 5 program, and shall meet DOGAMI requirements.

(I) Water Management:

(1) Surface water shall be managed in a manner which meets all applicable DEQ, DOGAMI, and ODFW water quality standards. Approval may be conditioned upon meeting such standards by a specified date. Discharge across public roads shall be prohibited. Existing natural drainages on the site shall not be changed in a manner which substantially interferes with drainage patterns on adjoining property, or which drains waste materials or waste water onto adjoining property or perennial streams. Where the mineral and aggregate operation abuts a lake, river, or perennial stream, all existing vegetation within 100 feet of the mean high water mark shall be retained unless otherwise authorized in accordance with the ESEE analysis and the development plan.

(2) All water required for the mineral and aggregate operation, including dust control, landscaping and processing of material, shall be legally available and appropriated for such use. The applicant shall provide written documentation of water rights from the State Department of Water Resources and/or local water district prior to any site operation.

(J) Floodplain:

Any QMO Extraction Area located wholly or in part in a Special Flood Hazard Area as shown on the Federal Insurance Rate Map (FIRM) shall receive approval in accordance with Section 4.000 of this Ordinance prior to any site operation.

Section 4:416. Application Process. Final development plan approval is required prior to the beginning of any mineral and aggregate activity listed in Section 4.412, and before any expansion of a pre-existing or non-conforming site. The applicant shall provide the following at the time of application:

(A) A development plan demonstrating that the development standards required in Section 4.414 can be met, including:

(1) Screening and fencing;
(2) Access;
(3) Hours of operation;
(4) Environmental standards;
(5) Equipment removal;
(6) Performance agreement;
(7) Significant resource area protection;
(8) Site reclamation;
(9) Water management; and
(10) Floodplain.

(B) A map or diagram showing the location and setbacks of all proposed mineral and aggregate activities and operations and the location and distance to all Sensitive Uses within the Impact Area.

Applicant:

A. Screening and Buffering

The Hienze dwelling that is located about 700 feet tot he south of the southern boundary of the quarry is the only existing residential use within 1000 feet of the active quarry. The Olney Grange and Olney Community Church are both located about 1000 feet to the west of the active quarry. Quarry rock extraction activities are moving to the north and east away from these existing uses. Existing topography and vegetation provide a screening buffer between the quarry activities and these uses.

B. Access

The existing road approach from Highway 202 into the Olney quarry is paved and the main access road is gavelled. The sole access point is controlled by a locked gate that is closed during periods of inactivity.

C. Hours of Operation

The quarry can be operated within the restrictions established by the ordinance's provisions for hours of operation and these provisions would be an acceptable

condition of approval for this site.

D. Environmental Standards
As stated above, the existing quarry use has been established in conformance with required State of Oregon DEQ and DOGAMI permitting requirements. Additional state and federal permits will be obtained as required for future quarrying activities.

E. Equipment Removal
Quarrying equipment and accessory structures will be removed at the time commercial quarry activities are completed at the Olney site.

F. Performance Agreement
Proof of bonding and insurance will be provided to the County as required.

G. Significant Resource Protection
ESEE conflicts have been detailed and addressed above.

H. Site Reclamation
The reclamation plan that has been previously filed with DOGAMI will be followed when this quarry site is closed.

I. Water Management
The existing quarry is operating under the provisions of a DEQ wastewater runoff treatment plan. This plan will be modified in the future as required by the DEQ or as appropriate for any change in operations.

J. Floodplain
The proposed QMO extraction area is entirely outside the County's mapped flood hazard zone.

Staff:

The applicant has demonstrated compliance with the Section 4.416(A) QMO development standards. Continued commercial mining operations will be permitted on this site based upon the approval conditions of this QMO amendment.

Section 4.418. Site Plan Review.

(A) Site plan review is required prior to commencement of mining. Application shall be in the form required by the County, and shall demonstrate compliance with the standards of Section 4.414 and any requirements adopted as part of the Goal 5

process.

(B) Applications for site plan approval of surface mining operations and activities authorized by Section 4.408 in accordance with ORS 215.425 and ORS 1917.195.

(C) The County shall approve, conditionally approve, or deny a site plan based on the ability of the site plan to conform to the standards of Section 4.414 and other requirements adopted as part of the Goal 5 process.

(D) If the County determines that the site plan is substantially different from the proposal approved in the Goal 5 process, the application shall be denied or conditioned to comply with the decision adopted as part of the Goal 5 process, or the applicant may choose to apply for a Comprehensive Plan amendment whereby the original decision reached through the Goal 5 process will be reexamined based on the revised site plan.

Staff:

The applicant has submitted a site plan for continued commercial rock quarrying operations within his approved "extraction area". Any expansions of commercial quarrying operations beyond the approved "extraction area" will require the submittal of a new site plan and further County land use approvals.

C. Clatsop County Comprehensive Plan (County-Wide Elements)

Applicant:

The Land Conservation and Development Commission acknowledged the County's Comprehensive Plan on May 31, 1984. However this plan did not contain provisions to identify and protect valuable Goal 5 aggregate resources. This analysis is part of the County's current efforts to inventory and protect its known aggregate resources. The County finds that this site would not be affected by conflicting uses, including nearby residences or forest lands. This designation is consistent with a determination to preserve the resource in accordance with the Goal 5 administrative rule (OAR 660-16-005(1). In the event that the County receives a request to rezone properties in the vicinity to a zone that would permit conflicting uses, this overlay designation would protect the site from encroachment. No such rezoning or development has been proposed at this time.

Staff:

Following are applicable Comprehensive Plan Goals and the

Policies from these Goals.

Goal 1 Citizen Involvement

Staff:

All applicable Comprehensive Plan and Land and Water Development and Use Ordinance goals and standards were developed with citizen involvement. This hearing addresses the goal requirements for this application.

Goal 2 - Land Use Planning

Conservation Forest Lands:

Forest lands are those lands that are to be retained for the production of wood fiber and other forest uses.*

In land use changes involving a change from Conservation Forest Lands or Rural Agricultural Lands to Rural Lands or Development designations an Exception to the Agricultural Lands or Forest Lands Goals must be taken.*

Staff:

The site is zoned Forest -38 (F-38) with a portion of the site designated with a Geologic Hazard Overlay (GHO). The site has a Comprehensive Plan designation of Conservation Forest Lands. The request does not involve a change in this designation.

Goal 3 - Agricultural Lands

Goal:

To preserve and maintain agricultural lands.

Policies

1. The County shall provide areas for the continued practice of agriculture and permit the establishment of only those new uses which are compatible with agriculture activities.

Staff:

Only the area to the south is utilized as farm land. The site currently exists as a quarry site. Future quarry activities should be similar to those that currently occur on site.

6. Agricultural land which also meets the criteria for forest land and which is primarily utilized for livestock

grazing or forestry in sufficient parcel size, shall be conserved for forest uses.

Staff:

The site is zoned for forest and farm uses. These uses will still be permitted uses

Goal 4 - Forest Lands

Goal:

To conserve forest lands for forest uses.

Policies:

1. Forest lands shall be conserved for forest uses, including the production of trees and the processing of forest products, open space, buffers from noise, visual separation from conflicting uses, watershed protection, wildlife and fisheries habitat, soils protection from wind and water, maintenance of clean air and water, outdoor recreational activities compatible with these uses, and grazing land for livestock.

Staff:

The uses allowed in the F-38 zone will still be permitted uses after the QMO is placed. Forestry is not considered to be a "Sensitive Use" as defined by the QMO zone text.

14. Roads in forest areas shall be limited to the minimum width necessary for traffic management and safety.

Staff:

The roads necessary to serve any expansion areas must comply with access and road standards of the QMO zone text.

17. Expansion of existing non-forest developments and uses in forest zones may be permitted under a Type II procedure only when such expansion is substantially confined to the existing site.

Staff:

Expansion would be processed as a type II procedure.

Goal 5 - Open Space, Scenic and Historic Areas and Natural Resources

Goal: To conserve open space and protect natural and scenic resources.

Staff:

Goal 5 provides the following Goal and Policies intended to address mineral and aggregate resources.

Mineral and Aggregate Resources Goal:

To protect and ensure appropriate use of mineral and aggregate resources of the county, while minimizing any adverse effects of mining and processing upon surrounding land uses.

Policies:

1. The County shall protect significant mineral and aggregate resources consistent with Statewide Planning Goal 5 and the process for complying with the Goal specified in Oregon Administrative Rules Chapter 660, Division 16.

Staff:

The information submitted by the applicant is intended to address the applicable requirements. If the site meets the QMO Quality and Quantity standards, then the site is considered Significant. The QMO provides protection as required by Statewide Goal 5.

2. In making a decision whether to protect a significant mineral or aggregate site from conflicting uses, the County shall recognize that Goal 5 requires the protection of natural resources for future generations, and that the requirements of other applicable Statewide Planning Goals must be considered in any analysis of conflicting uses.

Staff:

An analysis of other applicable statewide goals is found at the end of this report. The conflicting uses found within the Impact Area are identified earlier in the report. The QMO provides development standards that must be met before expansion could occur. At this time, the Planning Commission must analyze the existing conflicting uses against the quarry site and configure the extraction area boundary and impact area boundary accordingly.

3. The County shall maintain an inventory of mineral and aggregate resources sites. The Comprehensive Plan

inventory shall consist of three parts:

a. An inventory of "significant sites" identified through the Goal 5 process as important resources that will be protected from conflicting uses;

b. An inventory of "potential sites" for which sufficient information concerning the location, quality, and quantity of a resource site is not adequate so as to allow the County to make a determination of significance;

c. An inventory of "other sites" for which available information demonstrates that the site is not a significant resource to be protected.

Staff:
This list is included in the staff report. The applicant is requesting the site be listed as a Significant Site.

4. The location of a mineral or aggregate resource shall be identified as the site of a recoverable source of material. A resource site may consist of all or portions of a parcel, and may comprise contiguous parcels in different ownerships. Identification of a resource site need not include mineral and aggregate reserves that are irrevocable committed to other land uses which are incompatible with surface mining.

Staff:
The proposed Extraction Area spans two parcels that are owned by Martin Nygaard. The applicant has included a map that identifies the area to be excavated. If approved, the Extraction Area would be considered the location of the protected resource.

5. For an aggregate site to be determined significant, the resource must meet Oregon Department of Transportation specifications for concrete aggregate rock. It is the County's policy to protect the highest quality rock for future use.

Staff:
The applicant has submitted laboratory test results of the material at the site. This information submitted indicates that the material meets the QMO quality standards. These standards are the same as the ODOT specifications.

6. For an aggregate site to be determined significant, the site must possess a minimum of 250K cubic yards of minable reserves. It is the policy of the County to protect a variety of large reserves in order to serve the regional market.

Staff:
The applicant has indicated that 500,000-750,000 cubic yards of material exist at the site. This exceeds the 250,000 minimum requirement.

7. The significance of non-aggregate mineral resources shall be judged on a case-by-case basis, taking into account information concerning the commercial or industrial use of the resource, as well as the relative quality and relative abundance of the resource within at least the County.

Staff:
This site is not a source of "non-aggregate mineral". This policy does not apply.

8. Because material source sites owned or controlled by municipal, County or state government agencies have been acquired for the purpose of maintaining the public road system, and collectively form a network of great importance, the County shall deem such sites presumptively significant. Such sites shall be analyzed along with other significant sites to establish the appropriate level of protection from conflicting uses.

Staff:
This site is privately owned. This policy does not apply to privately owned sites.

9. The County shall recognize existing surface mining operations as significant resources pursuant to Goal 5, and shall allow existing operations to continue for two (2) years without conforming to the performance standards in the zoning ordinance. Expansion beyond the limits of an existing site shall be in accordance with County zoning regulations.

Staff:
This is an "existing surface mining operation". Expansion

beyond the combined boundaries of the previous County land use approvals for Parker in 1979 and Nygaard in 1986 would require conformance with the QMO performance standards. See the next policy for discussion of "existing operation".

10. The scope of an existing or "grandfathered" aggregate operations shall be established by:

    a. Authorization by a County land use approval; or
    b. The extent of the area disturbed by mining on the effective date of this ordinance; or
    c. The continuous pursuit of a specific mining plan by an operator for not less than five years.

Staff:

As discussed in the Background portion of this report, Clatsop County has granted approvals for two separate and overlapping commercial rock quarries on the subject property. The "Parker approval" was originally granted in 1979 and the Nygaard Conditional Use approval was granted in 1986. Both of these commercial quarry approvals are still valid. QMO Policy 10(a) applies to both the 1979 Parker and 1986 Nygaard commercial quarry approvals. The "extraction area" proposed as part of this QMO amendment covers an area that has been previously approved by Clatsop County for commercial quarry operations. The proposed "extraction area" is smaller than the combined approval areas of the 1979 Parker and 1986 Nygaard land use approvals.

11. In order to maintain the right to continue an existing surface mining operation and bring the County's inventory of mineral and aggregate resources into compliance with Goal 5, an analysis of economic, social, environmental and energy (ESEE) consequences performed for an existing site shall only consider the consequences of potential conflicting uses upon current or future operations, and the consequences of mine expansion on existing or potential conflicting uses.

Staff:

An ESEE analysis is provided that evaluates uses with a 1000' Impact Area surrounding the proposed Extraction Area.

12. Sites on the "other sites" inventory shall not be protected pursuant to Goal 5.

Staff:

This site is proposed for listing as a "significant" Goal 5 site.

13. For sites on the "potential sites" inventory, the County shall review available information about mineral and aggregate resources, and if the information is sufficient, determine the site to be significant when one of the following conditions exists:

    a. As part of the next scheduled periodic review;
    b. When a landowner or operator submits information concerning the potential significance of a resource site and requests a Comprehensive Plan amendment;
    c. When resolution of the status of a potential resource is necessary to advance another planning objective.

Staff:

This site is not on the "potential sites" list. The owner of the site is seeking QMO designation pursuant to policy 13.b. by submitting laboratory data and addressing the appropriate standards.

14. For each site determined to be significant, the County shall complete the remainder of the Goal 5 process of identifying conflicting uses, analyzing the ESEE consequences of the conflicting use(s), and designating a level of protection from conflicting uses. If the final decision concerning the site is to fully preserve or partially protect the resource from conflicting uses, the site shall be zoned with the Mineral and Aggregate Resources Overlay.

Staff:

The ESEE analysis and the data on the quality of the rock is intended to justify protecting this site and designating it with a QMO. The laboratory data indicates that material qualifies for QMO protection.

15. When analyzing the ESEE consequences of potential conflicts between a significant mineral or aggregate resource and another significant Goal 5 resource, the County shall consider the protection program adopted for the conflicting resource. Conflicts with other natural resources shall not be the basis for mining restrictions unless the County has included the conflicting resource on the inventory of significant Goal 5 resources, and adopted a resource protection program.

Staff:

The only other Goal 5 resource is the "Peripheral Big Game Range" designation on the site. The county has Goal 5 policies for this designation. These policies are addressed later in this report.

The QMO development standards require the maintenance of all existing vegetation within 100 feet from the edge of all perennial streams. Since there are no perennial streams on the subject property, this standard is not applicable.

All necessary state permits must be submitted before the planning department could approve a request to operate.

16. The County may consider the effects of surface mining operations on public roads and traffic. Consideration may include review of proposed routes, site distances at access points, roadway width and alignment, and level of service. The County may impose conditions or restrictions directly related to the impact created by surface mining; however, any conditions or restrictions shall not be approval criteria, and shall be applied uniformly to all road users in a manner consistent with the County's transportation plan.

Staff:

Highway 202 is within the Impact Area and serves as the transportation corridor for all trucks to and from the site. ODOT has been sent notice regarding this request. Traffic associated with the site would be a continuation of the existing quarry related traffic.

17. In order to approve surface mining at a site zoned for exclusive farm or forestry use, the County shall find, as part of the ESEE analysis, that the proposed activity will not: (1) force a significant change in, or significantly increase the cost of, accepted farming or forestry practices on surrounding lands, and (2) will not significantly increase fire hazard or significantly increase fire suppression costs or significantly increase risks to fire suppression personnel.

Staff:

The site is zoned Forest-38 (F-38). The area proposed for the QMO is not currently utilized for farming or forestry. Access to the site is existing, therefore, new access points or driveways that could remove land from resource use would not be required. Land to the east is currently used for mining. The highway borders to the south. The land to the north is owned by Hanson while the parcel to the west is owned by the Olney Church. Both parcels are zoned for forestry.

Only a small portion of the Church property is within the Impact Area. No dwellings or sensitive uses are proposed for the site that could potentially effect forestry practices on Hanson or church parcel.

18. The County shall not independently apply the Mineral and Aggregate Resources Overlay to land within another County, or within a city or its urban growth boundary. The County shall seek to ensure protection of significant sites where the impact area surrounding the resource extends across jurisdictional boundaries through cooperative agreements with another County or a city.

Staff:
This site is entirely within the jurisdiction of Clatsop County.

19. The County shall require increased setbacks, insulation, screening, or similar measures as conditions of approval for any new conflicting use within an impact area surrounding a mineral or aggregate resource site when such measures are deemed necessary to resolve conflicts identified in a site-specific Goal 5 analysis.

Staff:
This is not a request for a conflicting use. This policy is not applicable.

20. The County may establish and impose conditions on operation of a surface mine when deemed necessary as a result of a site-specific Goal 5 analysis. Where such conditions conflict with criteria and standards in the Mineral and Aggregate Resources Overlay, the conditions developed through the Goal 5 analysis shall control.

Staff:
As part of this process, if the Planning Commission feels that specific concerns can only be addressed through the adoption of conditions, such conditions can be imposed.

21. As part of the ESEE analysis and decision on the level of protection to be afforded significant mineral and aggregate resource sites, the County shall determine the appropriate post-mining use of the site.

Staff:

The applicant has not proposed a post-mining use. The County must make this determination as part of the approval. This can include that the site only be used for uses permitted in the underlying zone (F-38).

22. The County recognizes the jurisdiction of the Department of Geology and Mineral Industries (DOGAMI) for the purpose of the mined land reclamation pursuant to ORS 517.750 to 517.900 and the rules adopted thereunder.

Staff:

The applicant will have to comply with all applicable DOGAMI standards if he proposes to expand beyond the limits of his existing DOGAMI permit.

23. Unless specifically determined on a case-by-case basis, it shall be the policy of the County, pursuant to ORS 517.830(3), that DOGAMI delay its final decision on approval of a reclamation plan and issuance of an operating permit, as those terms are defined by statute and administrative rule, until all issues concerning local land use approval have been adjudicated by the County.

Staff:

With its approval of this QMO amendment, Clatsop County will acknowledge to DOGAMI that the Nygaard-Olney commercial quarry is in full compliance with all applicable County land use requirements.

24. No surface mining or processing activity, as defined by the zoning ordinance, shall commence without land use approval from the County, and approval of a reclamation plan and issuance of an operating permit by DOGAMI.

Staff:

The applicant has valid County land use approvals to continue commercial mining operations on this site. Approval of this QMO amendment will allow the applicant to conduct commercial mining activities within the boundaries of its designated "extraction area". The applicant has filed a reclamation plan and operating permit application with DOGAMI for the Olney quarry site. Based upon this County QMO approval and the issuance of appropriate DOGAMI permits, the applicant will be allowed to conduct commercial mining activities on the subject

property.

25. Land shall not be rezoned to remove the Mineral and Aggregate Resources Overlay until the mineral or aggregate resource is depleted, and the site has been reclaimed.

Staff:
This is not a request to remove the QMO zone.

Fish and Wildlife Areas and Habitats Policies.

4. To protect riparian vegetation along streams and lakes not covered by the Forest Practices Act, the County shall require a setback for non-water dependent uses.

Staff:
Since there are no perennial streams or lakes on the subject property, there are no riparian setbacks or buffers will be required for this proposed commercial quarry.

7. The County shall rely on the Division of State Lands' permit process, under the Fill and Removal Law, to insure that proposed stream alterations such as bridges, channelization, or filling do not adversely affect the stream's integrity or its value as fish habitat.

Staff:
The applicant shall comply with the requirements of the DSL Fill and Removal Law.

8. New developments shall not restrict existing public access to rivers, streams, or lakes. New developments are encouraged to provide additional public access to rivers, streams and lakes where such access is consistent with the area's environmental characteristics.

Staff:
The site does not currently provide public access to a river or stream.

Goal 7 - Natural Hazards

Goal:

To protect life and property from natural disasters and hazards.

General Mass Movement Policies:

1. The County shall recognize the development limitations imposed by areas of mass movement potential.

Staff:

The request is for protection of the resource site. Any development proposed for the site will require prior approval. Any potential structures would need to be reviewed against this policy.

2. Mass movement hazards do not necessitate disapproval of development, but higher development standards can be expected in order to minimize problems.

Staff:

Again, this is not a request for development. This policy would be reviewed against any development proposal.

Development Policies for Areas of Mass Movement:

2. Access roads and driveways shall follow slope contours to reduce the need for grading and filling, reduce erosion, and prevent the rapid discharge of runoff into natural drainageways.

Staff:

as expansion requires prior approval, this policy would be reviewed and is applicable for this site.

D. Compliance with the Lewis and Clark Community Plan

Fish and Wildlife Policies

1. Clatsop County will cooperate with governmental agencies to conserve and protect identified fish and wildlife habitat.

Staff:

The Peripheral Big Game Range Policies apply on this site. These policies were addressed earlier in the report. The United States Fish and Wildlife Department and Oregon Department of Fish and Wildlife have been notified of this

request. We have not received comments from these agencies.

2. Public and private land ownership preserves many habitat areas. There is limited regulatory power to assure that more living communities and animal species do not become rare and endangered in the future. Therefore new development should be designed and constructed so as to:

   a. maintain wherever possible a natural, vegetative buffer strip along wetlands and streams,
   b. minimize the alteration of land and vegetation, and
   c. preserve open space, including agricultural and forest lands.

Staff:

Since there are no perennial streams or lakes on the subject property, no riparian setbacks or buffers will be required for this proposed commercial quarry.

E. Compliance with Statewide Goals

Goal 3:

Staff:

The site is currently zoned F-38, a mixed farm and forest zone. The site will maintain the F-38 zoning designation before, during and after mining activities occur.

Goal 4:

Applicant:

Aggregate extraction and processing operations on this site are not expected to conflict with the protection of adjoining forest lands or forest practices, or other activities necessary and appropriate for management of soil, air, water and fish resources, the provision for recreational opportunities, and agricultural uses. Mining and processing of aggregate and mineral resources are permissible uses of forest lands as specified by Goal 4 administrative rule. No aspects of the quarry's development would force a significant change in, or significantly increase the cost of accepted forest or farming practices on surrounding lands dedicated for resource use. Similarly, no aspects of the proposed operations are expected to significantly increase the fire hazard, the cost of fire suppression, or risks to fire suppression personnel.

Staff:

This site is currently zoned for farm and forest use. The site already has an existing access thus eliminating the need to reduce the amount of forested land for new access. Mining activities are allowed on forest land pursuant to Goal 4. The activities allowed by the QMO are similar to those that could occur under Goal 4.

Goal 5

Applicant:

The Statewide Planning Goal Number 5, requires in part that "where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal". The goal guideline suggests that "in conjunction with the inventory of mineral and aggregate resources, sites for removal and processing of such resources should be identified and protected".

The Goal 5 rule specifies the requirements and procedures local government must follow to comply with Goal 5. Goal compliance involves six basic steps:

1. Identify a resource's location, quality and quantity;
2. Determine the resource's significance;
3. Identify conflicting uses;
4. Analyze the economic, social, environmental and energy consequences of conflicts;
5. Determine the level of protection for the resource; and,
6. Implement a program to protect significant resources.

The purpose of this process is to complete the Goal 5 analysis and protect the Olney quarry and processing site for future continued use.

Summary of ESEE Analysis

The ESEE analysis demonstrates that the Olney quarry site is a significant aggregate resource for Clatsop County that merits protection through the County land use planning process.

Program to Achieve Goal

The Goal 5 rule (OAR 660-16-010) provides: "Based upon the

determination of the economic, social, environmental and energy consequences, a jurisdiction must develop a program to achieve the gaol".

The County has adopted policies in the Comprehensive Plan and a zoning overlay zone to protect significant quarry sites. The purpose of this analysis is to demonstrate that the Olney quarry site is significant. The attached map illustrates the active quarry site and a 1000 foot impact area surrounding the entire existing and proposed quarry activity area. The underlying zone will continue to be Forest-38 the QMO overlay will be added until such time as the subject rock resource is depleted and the site is reclaimed. The Olney quarry will continue to operate within the boundaries of the approved QMO extraction area under the conditions of approval of this QMO amendment.

Staff:

Goal 5 is designed to identify, and then protect where appropriate, a variety of resources. Rock and mineral resources are a Goal 5 category resource. The request is to recognize this site as a Significant Goal 5 site and provide it with the QMO district protection. If the site is found to be significant and there are no other significant resources, the site must be protected unless there are enough conflicting uses that render the site unsuitable for the proposed use. The submittals from the applicant and this staff report address compliance with the applicable requirements.

Goal 6:

Applicant:

The environmental effects of the quarry operation have been discussed above. The existing quarry has an active DOGAMI mining permit. The existing storm water collection and treatment system has appropriate DEQ permits. Current DEQ permitting standards require the monitoring and testing of these runoff waters. DEQ air and water quality permits are also required for the rock processing equipment that is operated at the Olney quarry site.

The Olney quarry is currently operating under the controls of required environmental permits without any identified problems.

Staff:

The site will have to comply with all DEQ and Oregon Department of Fish and Wildlife (ODFW) requirements regarding

the drainage and impacts on the river. Operational standards are provided by the QMO text. These standards must be addressed by the applicant before the quarry can expand beyond the boundaries of the approved QMO "extraction area".

Goal 12:

Applicant:

Statewide Planning Goal 12 requires local governments "to provide and encourage a safe, convenient and economic transportation system". The Olney quarry is a very important source of aggregate materials for a wide range of City, County, State and Federal street and highway construction and repair projects.

Staff:

The information provided by the applicant indicates that the material will meet QMO quality standards. This is an active site that provides material for a variety of uses including road construction.

Goal 13:

Applicant:

The Olney quarry by virtue of its strategic location promotes energy conservation. It is far most efficient to utilize rock from this centrally located source than to import rock from outlying locations within Clatsop County or from areas outside of our County.

Staff:

This is a functioning quarry. Protecting a significant site ensures that a source of quality aggregate will be available in proximity to Hwy 202 and the Astoria/Warrenton area.

III Options

Following is an outline that reflects potential actions the Planning Commission can undertake. The outline is not intended to address every issue but rather to serve as a guide upon which the commission can act.

1. Deny the request.

2. Approve the request.

3. Approve the request with conditions.

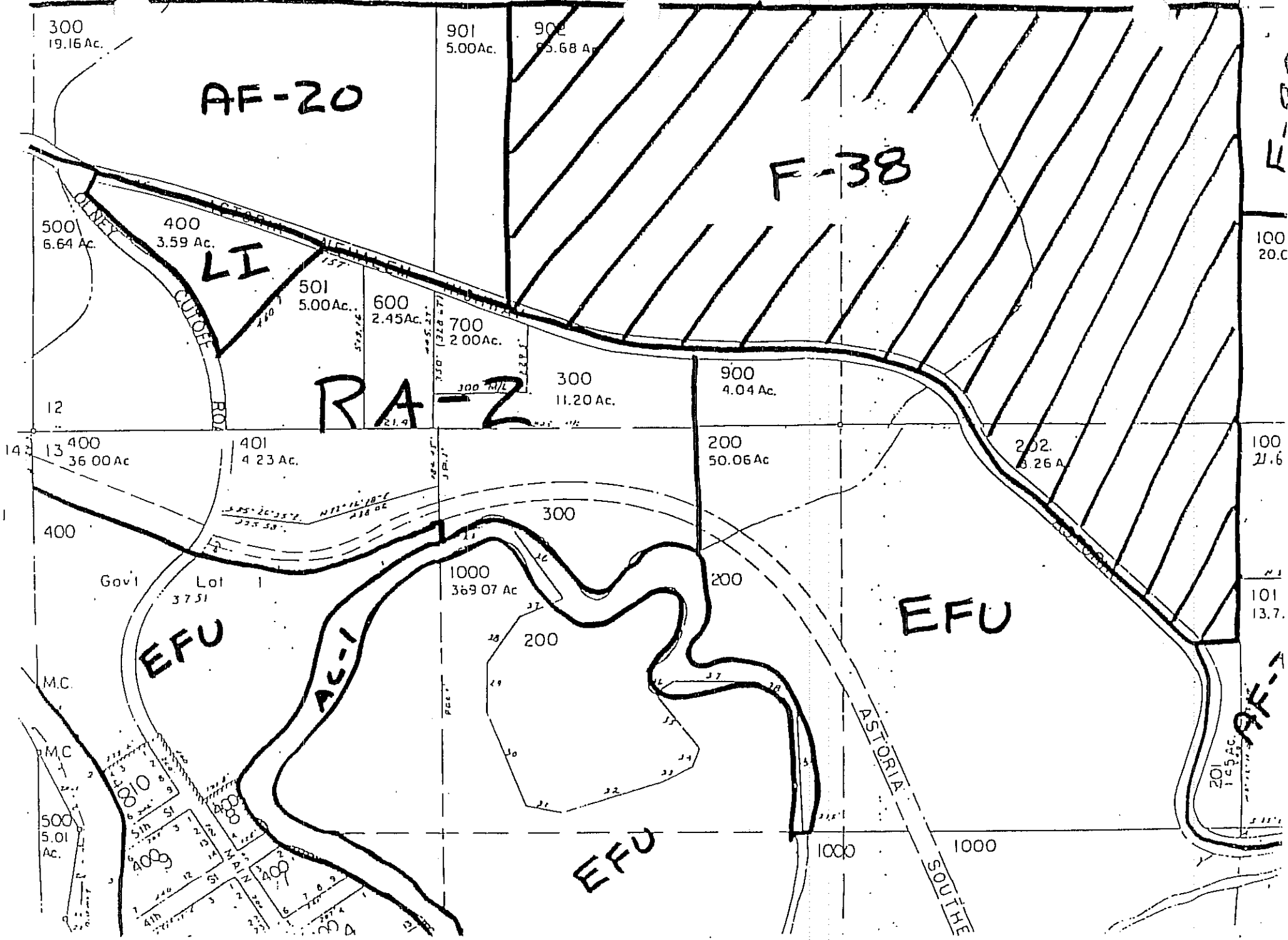
4. Continue the hearing.

Planning Commission Recommendation:

By unanimous motion on 10/18/94, the Clatsop County Planning Commission recommended approval of the Quarry and Mining Overlay zoning designation for the Nygaard-Olney quarry site and the designation of this site as a Significant Goal 5 rock resource site based upon staff report findings (to be amended by staff as directed) and the following conditions of approval:

1. The "extraction area" and "impact area" shall be configured as they are represented in the 9/29/94 staff report.

2. The post mining use of the site shall be a use that is permitted in the underlying zone.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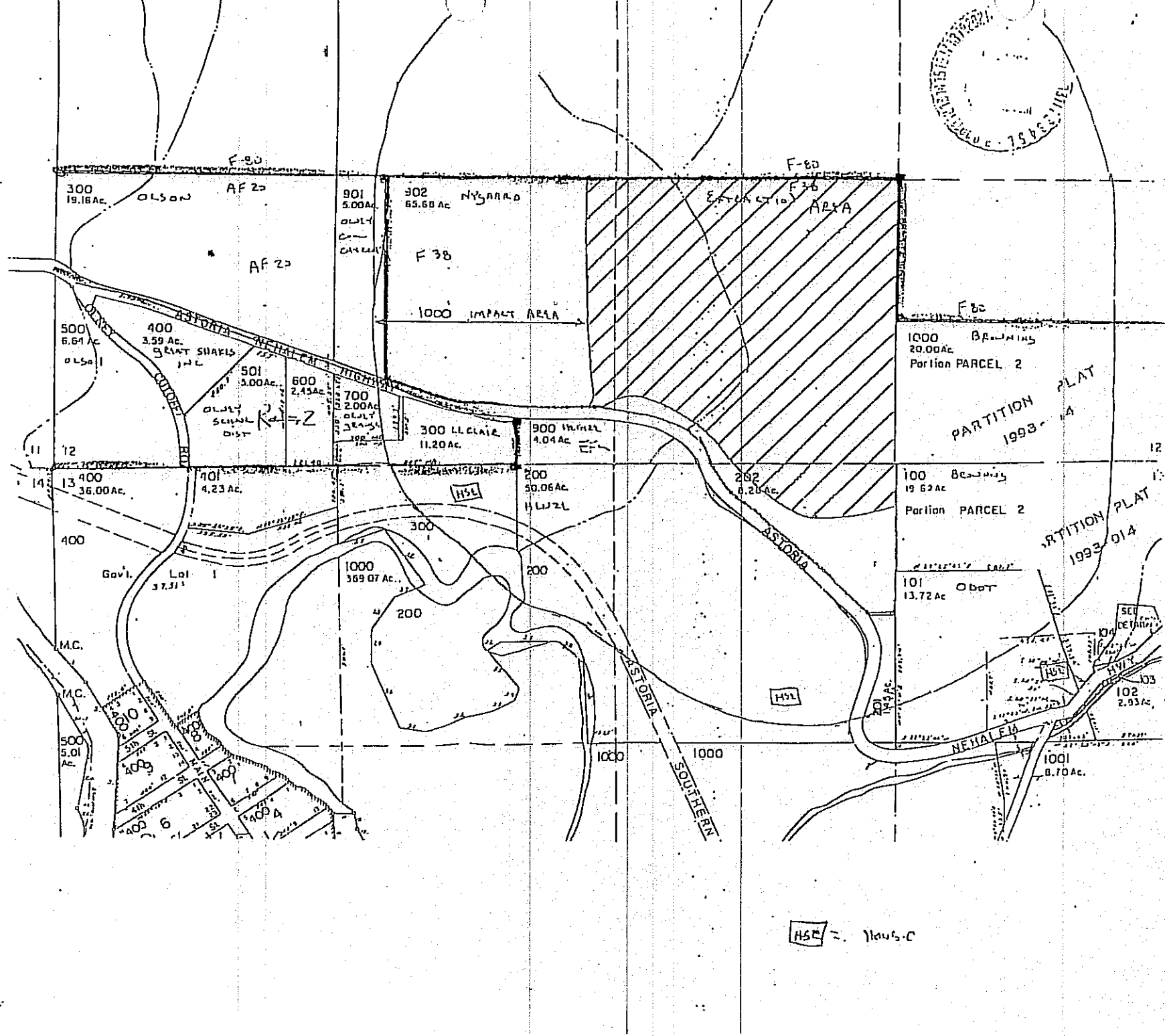
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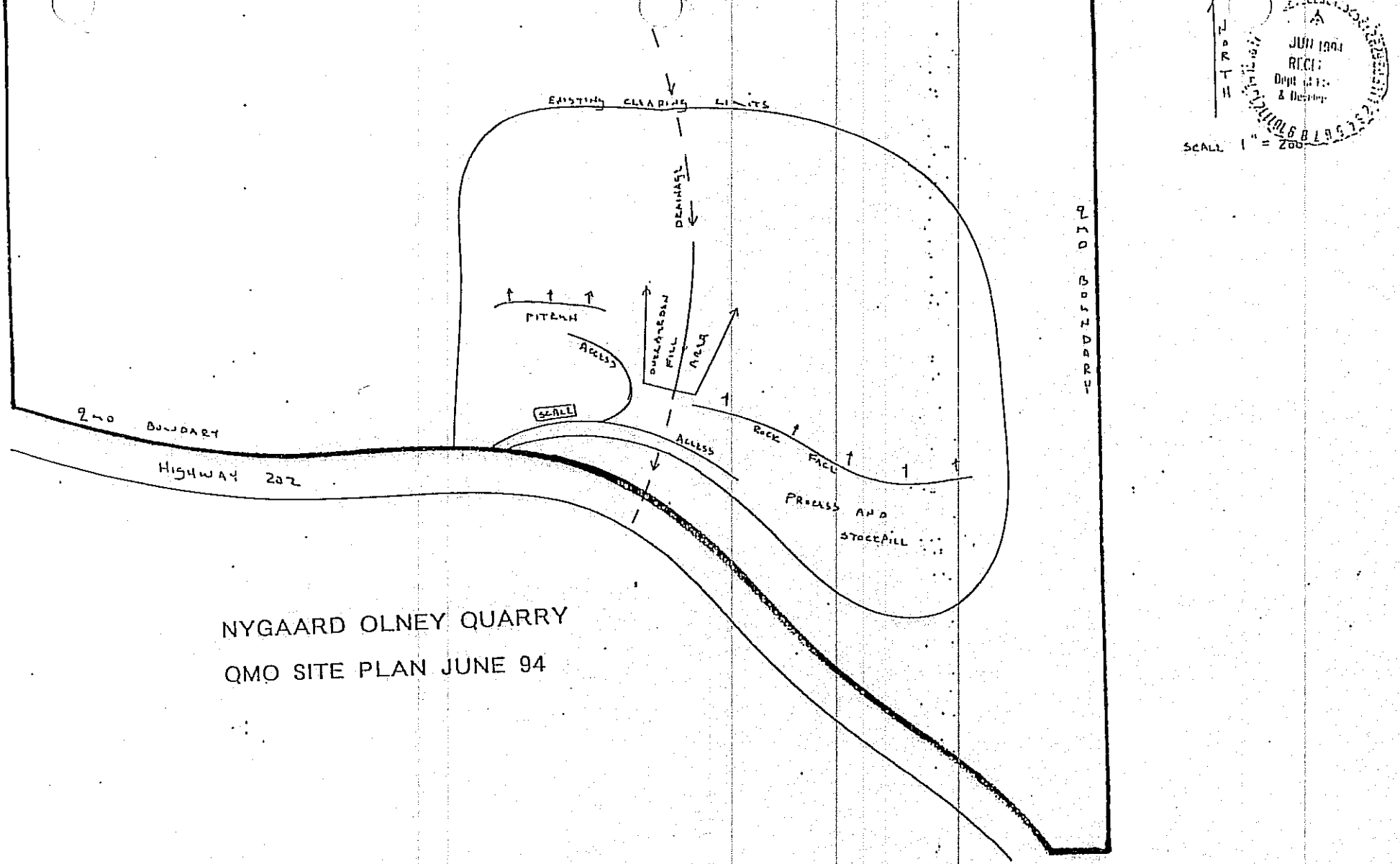
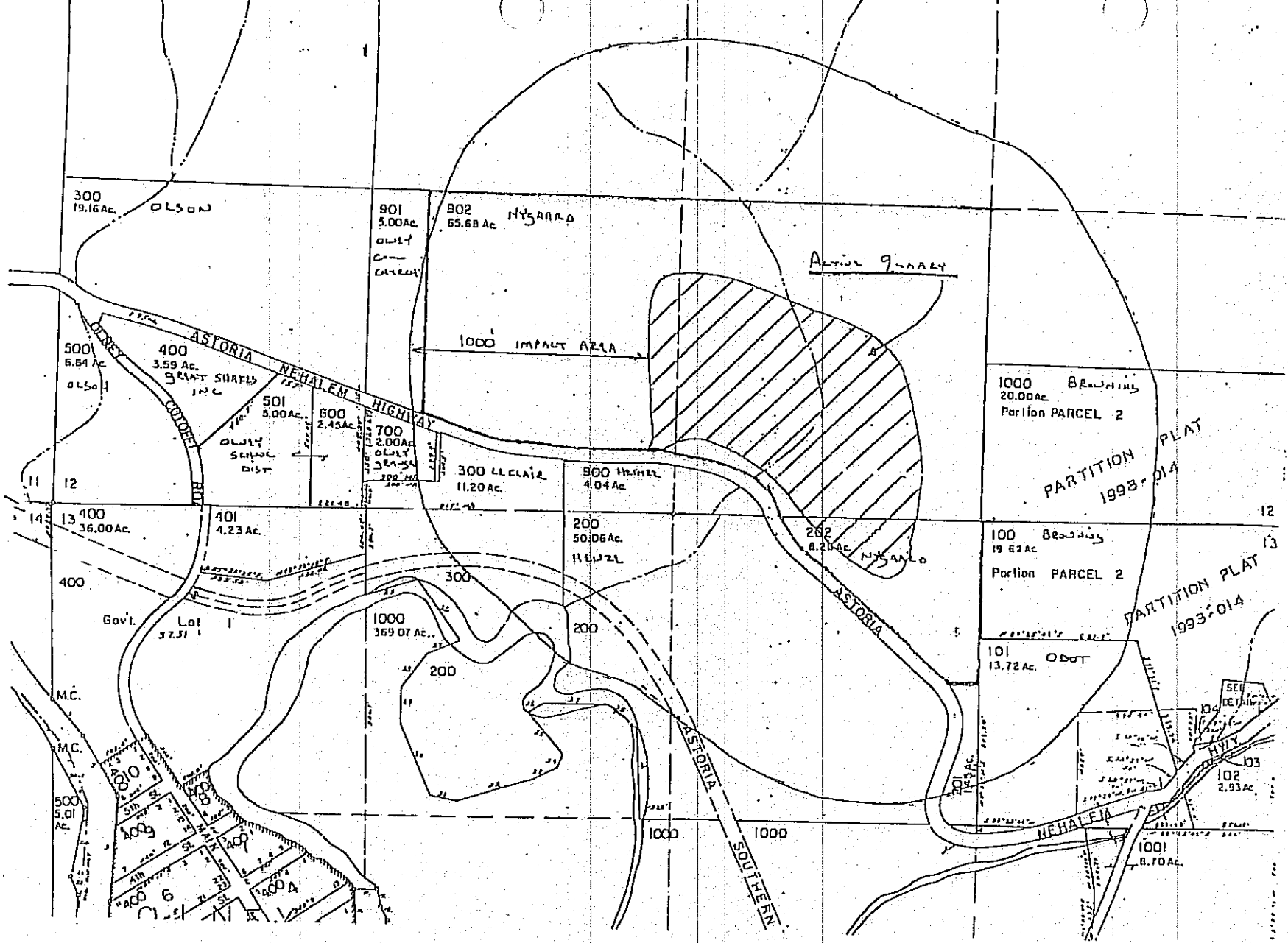


NYGAARD OLNEY QUARRY

QMO SITE PLAN JUNE 94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2.93Ac.
1001
8.70Ac.

July 18, 1994

Dave Carpenter
Department of Planning and Development.
Clatsop County
Post Office Box 179
Astoria, Oregon 97146

Re: Quarry & Mining Overlay Public Hearings

This letter is intended to be a follow-up upon our counter discussion of this morning. It is my understanding that your tentative Planning Commission public hearing schedule includes QMO public hearings on September 6, 1994 for the Nygaard-Olney quarry and the Riekkola-Olney quarry. I also understand that the Nygaard-Lewis & Clark quarry QMO public hearing will be scheduled for the next available Planning Commission date after 9/6/94.

All three of these rock quarry sites meet the minimum ordinance quantity and quality standards listed in Section 4.424 of the Land and Water Development and Use Ordinance for recognition as "Primary Sites Requiring QMO Protection". Please reference in your public notices for these upcoming Planning Commission and Board of Commissioners public hearings that the ongoing QMO review process will provide for each of these three rock quarry sites to be added to Clatsop County's Goal 5 list of "Primary Sites Requiring QMO Protection".

Please insert the following supplemental information upon rock quality testing into the file for the Nygaard-Lewis & Clark quarry:

> May 24, 1994 rock test results from the laboratories of Braun Intertec Northwest, Inc. document that the rock samples from the Nygaard-Lewis & Clark quarry satisfy the zoning ordinance QMO zone Section 4.424 quality standards. Section 4.424 requires that an aggregate resource meet at least two of the three listed quality test standards (Abrasion, Oregon Air Degradation and Sodium Sulphate Soundness). Test results show an abrasion loss of 19.8% compared to the maximum ordinance standard of 35% (L.A. Abrasion test; AASHTO T-96). Test results show a sodium soundness loss result of 15.4% compared to the maximum ordinance standard of 17% (Sodium Soundness; AASHTO T-104). Test results show an air degradation loss of 36% compared to a maximum ordinance standard of 35% (Oregon Air Degradation; OSHD-208). This 1% difference is

attributed to "iron scaling" that typically occurs on surface rock that has been exposed to the atmosphere for a prolonged period of time; Braun Intertec lab personnel suggested that this test result would likely improve as deeper, subsurface rock was removed.

Thank you for your assistance in the Goal 5 QMO site protection process. Please contact me if you would like to discuss these three quarry sites in further detail or if you would like to schedule a staff site visit at the time you are preparing your staff reports for the upcoming QMO hearings.

Sincerely,

Don Lampi

Don Lampi
Land Use Consultant
1441 South Main Street
Warrenton, OR 97146
(503) 861-2420

June 24, 1994

HAND DELIVERED

Dave Carpenter
Department of Planning Development
Clatsop County
Post Office Box 179
Astoria, Oregon 97103

Re: QMO Submittals

Dear Dave:

As you requested, I have revised the "Impact Area Maps" and "QMO Site Plans" for the Nygaard-Olney, Riekkola and Nygaard-Lewis & Clark QMO sites to include (1) existing zoning, (2) "extraction areas" and (3) approximate locations of dwellings within the 1000 foot impact area. The revised maps are attached. You may wish to attach copies of your counter zoning maps to improve the presentation clarity of the zoning district boundaries at these sites.

As we discussed, these three quarry sites should also be added to the County's list of "Significant Sites" as part of your scheduled Quarry and Overlay Zoning amendment process. All three sites have rock deposits which satisfy the quantity and quality standards of Section 4.424.

Please advise when you establish public hearing dates for the QMO review process. I would appreciate if you would place my name on the mailing list for these public notices and also forward copies of notices to the owners of these individual quarry sites.

Please advise if you have further questions.

Sincerely,

Don Lampi

Don Lampi
Land Use Consultant
1441 South Main Street
Warrenton, OR 97146
(503) 861-2420

Carlson Testing, Inc.

Construction Inspection & Related Tests
Geotechnical Consulting

P.O. Box 23814
Tigard, Oregon 97281
Phone: (503) 684-3460
Fax: (503) 684-0954

April 8, 1994
94-1344

M. Nygaard Logging Co.
PO Box 157
Warrenton, Oregon 97146

Attn: Mr. Gerry Backanen

Re: Aggregate Qualification Testing

Gentlemen:

As requested, we have completed aggregate qualification testing on a sample of 1 1/2"-0 aggregate submitted to our laboratory on March 28, 1994 by your representative. The testing and specifications shown on the data portion of the text are from the OSHD Standard Specifications For Highway Construction section 02690 PCC Aggregates. The testing requested were applicable to coarse aggregates. Following is the test data:

ABRASION - AASHTO T96:

Percent Loss to Abrasion @ 500 Revs. = 15.6% *

OSHD Specification: 30.0% maximum

* Grading "A" used in loss determination

FRIABLE PARTICLES - AASHTO T112:

Percent Friable Particles = 1.50%

OSHD Specification: 2.00% maximum

DEGRADATION - OSHD TM 208:

Percent Passing the No. 20 Sieve = 19.3%

OSHD Specification: 30.0% maximum

Sediment Height = 1.0"

OSHD Specification: 3.0" maximum

LIGHTWEIGHT PARTICLES - AASHTO T113:

Percent Lightweight Material @ 2.40 Specific Gravity = 0.093%

OSHD Specification: 0.25% maximum

SOUNDNESS - OSHD TM 206:

SIEVE FRACTION	WEIGHT BEFORE TEST	WEIGHT AFTER TEST	% LOSS @ 5 CYCLES
1 1/2" to 3/4"	1500.0 g	1493.5 g	0.43%
3/4" to 3/8"	1002.3 g	992.8 g	0.95%
3/8" to #4	302.3 g	299.5 g	0.93%
TOTALS:	2804.6 g	2785.8 g	2.31%

Average Percent Loss @ 5 cycles = 0.77%

OSHD Specification: 12.00% maximum

In summary, we have found the tests conducted on this submitted sample to meet the OSHD PCC Aggregate requirements.

Our reports pertain to the material tested/inspected only. Information contained herein is not to be reproduced, except in full, without prior authorization from this office.

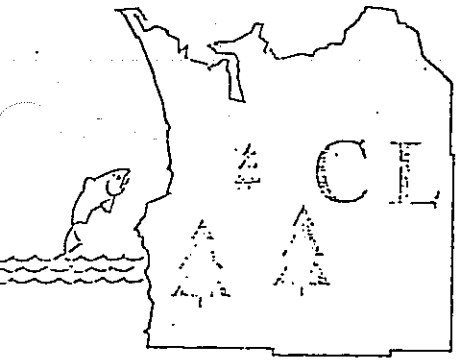
If there are any further questions regarding this matter , please do not hesitate to contact this office.

Respectfully submitted,

CARLSON TESTING, INC.

Douglas W. Leach
President

SJ



CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103

July 6, 1979

Jim Parker
Route 1 Box 994
Astoria, Oregon 97103

Dear Mr. Parker:

This is to confirm in writing what you've been told in the office regarding an intended mining operation on property owned by Marie Heinze.

The property you describe is located on the north side of Highway 202 in Tax Lot 900, Section 12, Township 7 North, Range 9 West. Zoning for the property is A-1 (General Farm Use and Forestry), in which mining is an outright permitted use except within 500 feet of residential or commercial zones or any existing dwelling unit.

This means that your intended mining operation is permitted as long as it is kept a distance of at least 500 feet from any dwelling unit. Also, because Tax Lot 901, owned by Olney Community Church and lying immediately west of the Heinze property, is the boundary of a commercial zone, the operation must be kept a distance of at least 500 feet from the east property line of Tax Lot 901.

If you have any questions, feel free to stop by.

Sincerely,

Mark R. Oggel, Zoning Administrator
Department of Planning and Development

MRO:ta

cc: Stan Ausmus, Department of Geology and Mineral Industries, Albany, OR

7 9 12 900