COOS COUNTY

COMPREHENSIVE PLAN

VOLUME I COOS COUNTY COMPREHENSIVE PLAN

PART 2 INVENTORIES AND FACTUAL BASE

COOS COUNTY COMPREHENSIVE PLAN

Volume I:

A general plan for the management of land and water areas in unincorporated Coos County, excluding areas within the jurisdiction of the Coos Bay Estuary Management Plan, for the Planning period 1980 to 2000 A.D.

Part 1: Inventories

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Replacement Sections for Coos County Comprehensive Plan

Volume I, Part 2: Inventories

- 1.0 Introduction
- 2.0 Setting
- 3.1 Agricultural Lands
- 3.2 Forest Lands
- 3.3 Mineral and Aggregate Resources
- 3.4 Fish and Wildlife Resources and Habitats
- 4.4 Industrial Lands
- 4.5 Housing
- 4.8 Recreation (Oregon State Recreation Trails old page 4.8-22a)

Note: All conflicting sections have been appealed.

1. INTRODUCTION

1.1 INTRODUCTION

This document constitutes Part 2 of the Coos County Comprehensive Plan, Volume I. It contains inventories of data and other information used to support the plan management decisions that are presented in Part 1 and the goal exceptions that are presented in Part 3. The Comprehensive Plan is set forth in three separate but related documents:

Part 1 Plan Provisions

This document contains an explanation of the Comprehensive Plan Land Use Map and sets forth local goals and strategies that are policy commitments.

Part 2 Inventories and Factual Bases

Part 3 Statewide Goal Exceptions

This document presents findings that support exceptions taken to LCDC Goals in order to meet needs identified in Coos County's local Comprehensive Plan (Volume I only).

The remainder of this document (Part 2: Inventories and Factual Base) is organized into four sections:

<u>Section 2</u> gives an overview of the physical and socio-economic make-up of Coos County.

<u>Section 3</u> is further divided into twelve subsections, each taking a detailed inventory of the known information about a particular natural resource or hazard, as well as a discussion of potential problems and opportunities for each.

<u>Section 4</u> is further divided into nine subsections, each of which explores the information available and potential problems and opportunities regarding each socio-economic resource.

<u>Section 5</u> contains the urbanization elements for each of the incorporated cities in the County, including an analysis of the needs of the Bay Area.

2. SETTING

- 2.1 Physical Aspects
- 2.2 Resources
- 2.3 Population
- 2.4 Economy
- 2.5 Land Use

2.1 PHYSICAL ASPECTS

2.1.1 Location, Extent, and Major Geographic Features

Coos County is located on the southern coast of Oregon between the crest of the Coast Range and the Pacific Ocean. The County is approximately 1,627 square miles in extent. Major features include two major estuaries; a deepwater port; a coastline along which rugged headlands alternate with long stretches of sandy beach; two major rivers, the Coquille and the Coos; hundreds of miles of salmon spawning streams; a broad expanse of coastal sand dunes; and heavily timbered uplands. The County is served by the Southern Pacific Railroad. The major north-south highway is U.S. 101; Highway 42 provides a link with the interior. There are eight incorporated cities within the County and over a dozen unincorporated communities. The County seat is Coquille (population 4,710 in 1978).

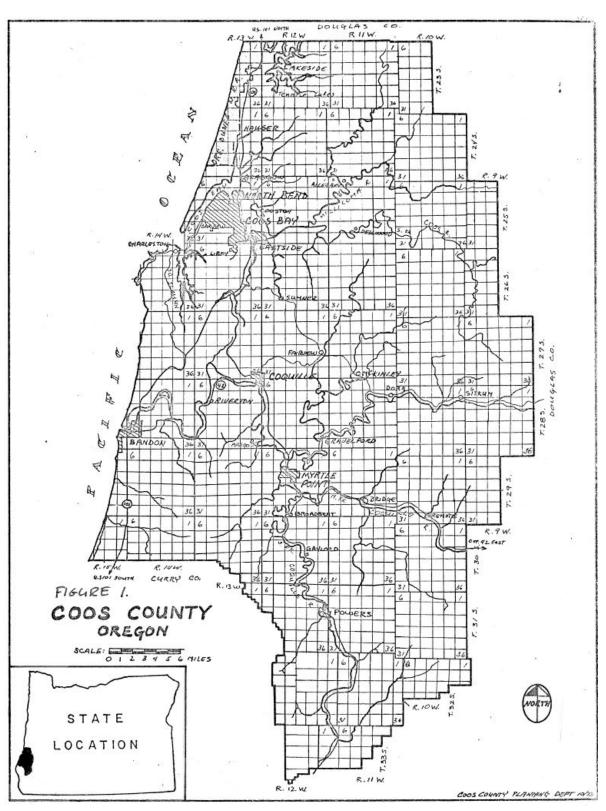
2.1.2 Climate

The climate is moist and mild with average temperatures in the low 50's (degrees Fahrenheit). While annual average temperatures fall within a few degrees of each other, the range in average monthly temperatures is greater for inland areas of the County than for the coast. Extremes in temperature are rare.

Yearly precipitation averages range from about 50 inches on the coast to 120 inches for parts of the Coast Range. The amount of snowfall the County receives per year is insignificant and does not appreciably affect stream runoff characteristics. Rainfall is extremely seasonal: about 4% of the average annual rainfall falls during June, July and August, while about 50% falls during November, December and January.¹

¹ South Coast Basin (State Water Resources Board, 1963), p.6.

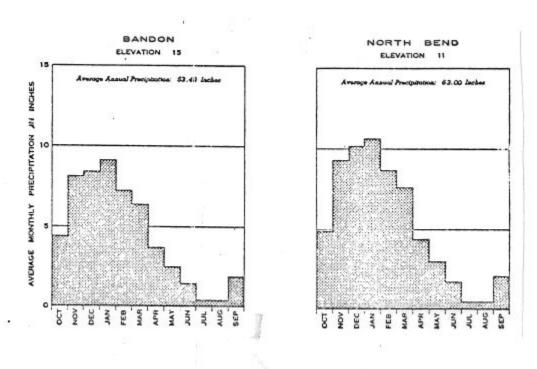
Figure 1.
Coos County, Oregon



Volume I, Part 2 Page 10

Figure 2.

Long-term Average Monthly Precipitation Patterns. ²



Summer winds are steady out of the north and northwest and average 17 miles per hour. Winter winds are from the south with strong gales from the southwest. While the average winter velocity is 15 miles per hour, maximum winter velocities far exceed summer velocities.³

2.1.3 Landforms

The topography has determined growth and settlement patterns in the County. Most of the county is comprised of steep and rugged uplands with elevations ranging from sea level on the coast to over 4,000 feet in the interior. These timbered hills and mountains of the Coast Range have kept the County relatively isolated and caused an early reliance on water transportation.

The largest lowland areas in the County are the floodplains, tidelands and marshes along the estuaries of the Coos and Coquille Rivers and the dunes north of Coos Bay. Dunes, marshes, tidal flats, floodplains, beaches and deflation plains are all lowland landforms. ⁴

A rising coastline (caused by wasting and faulting of the Earth's crust) and fluctuations in sea level predating and postdating episodes of continental glaciation have produced a series of wave-cut platforms or terraces along the coast. Remnants of old floodplains are now elevated above existing floodplains along major streams in areas where base level has dropped. The former are called marine terraces and the

² South Coast Basin, p.5.

³ John Beaulieu and Paul Hughes, Environmental Geology of Western Coos and Douglas Counties, (DOGAMI Bulletin 87, 1975), p.7.

⁴ Beaulieu and Hughes, p.7.

latter fluvial (river) terraces. The earliest terraces were cut more than two million years ago and the most recent were cut less than 3,000 years ago. Rapid erosion and dissection of these areas has occurred so that only small islands of undisturbed sediment are left on ridge tops and terraces. The highest terrace recorded in the County is 1,594 feet on top of Blue Ridge while many of the lower terraces are less than 500 feet.

2.2 RESOURCES

2.2.1 Agricultural Soils

Soils are classed by the USDA, Soil Conservation Service, according to how suitable they are for most kinds of farming. Using the Land Capability and Classification System, Class I soils have few limitations on their farming use, whereas Class VIII soils are generally unsuitable for cultivation or grazing.

According to a 1971 survey, there are approximately 150,000 acres of Class II-IV soils in the County. There are no Class I soils in Coos County. Much of the best agricultural land is concentrated in the Coquille Valley, which is seasonally flooded, and along narrow river and stream valleys and sloughs. Marine terrace soils (generally Class IV) are often limited in their usefulness because of high groundwater and ponding. Class IV soils are also found on ridge tops and in irregularly-shaped, small areas in hilly terrain, particularly between Coos Bay and the Coquille River. Most of the Class IV soils in the County remain in timber production. Certain Class VII soils have proven to be ideal for cranberries and are under cultivation, particularly in the Bandon area. In addition, about 47,000 acres of Class VI soils have been put to use as pasture/rangeland. These are located primarily in the southern portion of the County.

2.2.2 Forest Lands

Commercial forest covers 847,000 acres, 82.5% of Coos County. The total volume of sawtimber in 1975 was established as 17,346 million board feet (Scribner rule). Softwoods (about 91% of the growing stock) dominate hardwoods with Douglas fir the major species (about 65% of the growing stock). Other important species by volume are true firs, hemlocks and red alder.

A significant portion of the County's commercial forestlands are in private, non-industry ownership (24.4%). Public holdings, dominated by BLM, total 35.2% of commercial forest acreage. About 343,000 acres, or 40.5% of the County's commercial forestlands, are in forest industry ownership.

2.2.3 Mineral Resources⁸

The mineral and aggregate resources of the County are limited. Black sand deposits on marine terraces and beaches have been mined historically for gold and platinum and during World War II for chromite, the ore of a strategically important metal. There are several small non-producing gold mines in the Powers area (mostly placer operations), and four occurrences of copper. Sand is abundant and accessible; small quantities have been mined for glass production and construction uses.

The County is generally deficient in gravel and high-quality rock for concrete aggregate. Basalt and blueschist are mined for jetty stone and construction purposes. Fossil fuel reserves are modest. Coal reserves are estimated at 119 million tons in the Coos Bay coalfield and a possible additional 50 tons in the Eden Ridge field. Of these, only 60 million tons are categorized as being minable. Though occurring throughout the county, this resource is of insufficient quantity to warrant extraction.

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⁵ Coos County Resource Atlas (OSU Extension Service, 1973), p.11.

⁶ Coos County Resource Atlas, p.11.

⁷ Statistics given here are from or are based on information in the following publication: Patricia M. Bassett, Timber Resources of Southwest Oregon (U.S. Forest Service Bulletin PNW-72, 1977).

⁸ From John Beaulieu and Paul Hughes, Environmental Geology of Western Coos and Douglas Counties (DOGAMI Bulletin 87, 1975).

There has been renewed interest in gas exploration. Possible reserves have not been estimated. In the past, exploratory drilling produced a few petroleum and gas shows, but no significant production. (REV. 01-88 ORD. 87-11-016L)

2.2.4 Water Resources

The County has abundant surface water resources on a annual basis. However, streamflow is highly seasonal: about 90% of the annual yield occurs from November through April. Streamflow is lowest in the summer when demand is highest because of increased domestic and agricultural irrigation needs and tourism.

Groundwater resources vary widely within the County. Upland aquifers are poor, with low permeability and low yields. At the other extreme, dunes aquifers in the County are capable of producing several hundreds gallons per minute.

Several potential impoundment site are under construction, including sites on Glenn Creek, West Fork of the Millicoma River and South Fork of the Coquille River near Eden Ridge.

2.2.5 Fish and Wildlife

Fish resources of the County include ocean, freshwater, estuarine and anadromous species. The County has several hundreds of miles of salmon streams. Salmon have dominated commercial fishery landings in value and are the basis of a significant sport fishery. Shad, steelhead and striped bass are also taken in the rivers and estuaries.

Upland game mammals include Roosevelt elk, black-tailed deer, black bear and cougar. Squirrel, rabbit and raccoon are also common upland species.

The County provides habitat for a wide variety of bird species. On the Pacific Flyway, the County hosts large winter populations of migrating waterfowl. Resident upland bird species include band-tailed pigeons, grouse and pheasant. Several rate endangered or peripheral species can be found in the County, including the northern bald eagle, western snowy plover, osprey and brown pelican.

Particularly important habitats for fish and wildlife are salmonid spawning streams; wetlands; snowy plover, bald eagle, osprey, spotted owl and great blue heron nesting sites; and band-tailed pigeon mineral springs.

2.2.6 Scenic Resources

The scenic resources of the County are varied. Along the coast rugged headlands alternate with broad, sandy beaches or narrow beaches backed by cliffs. Bays, lakes and farmed lowlands provide more serene vistas while the steep, timbered uplands are visible from many lookouts inland. The sand dunes of the Coos Bay Dune Sheet provide a unique set of experiences ranging from seasonal and permanent lakes to bare and grassy dunes to Sitka spruce forests.

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⁹ South Coast Basin, pp. 34-37

2.3 POPULATION

In 1980 the population of Coos County was 64,047; an earlier estimate by Portland State University for 1978 was 63,200. By the year 2020, the estimated population for Coos County is anticipated to be 69,513 (Office of Economic Analysis, Oregon Department of Administrative Services). Between 1995 and 2020 the projected population is expected to increase by an average of 1.77%, due to the influx of people within the retirement age group.

Between 1980 and 1994 the population of Coos County decreased by 1.95%. During this 14 year period, areas of the county, which were economically dependent on timber alone, showed a decrease in population. For instance, in 1980 the City of Powers had a population of 819 residents, by 1994 the population had dropped to 680. In contrast, the City of Lakeside's population in 1980 was 1,453 and by 1994 had risen to 1,615; this was an increase of 10.03%.

The Cities of Coos Bay and North Bend which are the largest in Coos County did not show a decline in population during this 14 year period; nor did they exhibit an outstanding increase in population. The town having the highest percentage of population increase in Coos County was the City of Lakeside.

Based on the projected population for the years 1996 thru 2020 (county figures provided by Office of Economic Analysis, see Table 4b in Section 4.1.2 of Volume I, Part 2 of the Coos County Comprehensive Plan), Coos County's cities and unincorporated area will continue to increase in population. This projection shows that the percentage of growth rate for each city is not the same. For instance, the City of Bandon will increase (from 1996 to 2020) at a rate of 25.6%, while the City of Powers will increase at a rate of 10.2%. This projection shows that the unincorporated area population increases slightly over the forecast period, but the percentage share of total county population residing in the unincorporated areas (outside of UGBs) falls by about 1/2 of a percent per year.

The age structure of Coos County began changing during the 1980s. While the number of residents 18 years and younger declined by 17%, so did the 21-24 year olds by 41%. Residents between the ages of 25-29 showed an even larger decrease, while the 65 plus age group increased. The population projection to the year 2020 for Coos County is demonstrated in Table 3, located in Section 4.1.2 of Volume I, Part 2 of the County's Comprehensive Plan.

* Source: P.S.U. Center for Population Research and Census

2.4 ECONOMY

2.4.1 Basic Sectors

The lumber and wood products industry, agriculture, tourism and fishing are the major components of the basic sector of the County's economy. The lumber and wood products industry alone accounts for about one job out of every five the County's economy is not diversified: 4.3% of the total County employment in 1978 was engaged in "other manufacturing" (other than forest and wood products), compared to 12.4% for the State and 23.3% nationally. ¹⁰

2.4.1.1 Lumber and Wood Products

Long-term supply shortages, increased productivity due to advances in technology, and increased competition from other timber-producing regions indicate that the current decline in employment in this sector will continue during the planning period.¹¹

The previously high rate of harvest on private forest lands has left most of the remaining harvestable commercial sawtimber in the County on public lands. Comparing the ownership distribution of commercial forest land to the ownership distribution of sawtimber shows that the 64.8% of commercial forest land that are in private holdings contains only 33.3% of the total sawtimber volume (see Table 2 below).

Table 2

Ownership distribution: Commercial Forest Land and Volume of Sawtimber on Commercial Forest Land (January 1, 1975), Coos County

Ownership	Commercial Forest Land (% of Total)	Volume of Sawtimber (% of Total)
National Forest	7.6	22.4
Bureau of Land Management	18.4	33.2
Other Public	9.2	11.1
TOTAL PUBLIC	<u>35.2 %</u>	<u>66.7%</u>
Forest Industry	40.5	23.2
Other Private	24.3	10.1
TOTAL PRIVATE	<u>64.8%</u>	<u>33.3%</u>

Computed from data in Patricia M. Bassett's <u>Timber Resources of Southwest Oregon</u> (U.S. Forest Service Resource Bulletin PNW-72, 1977), pp.3.

Even if the supply of timber from public lands remains constant (this is the approximate timber management objective of the U.S. Forest Service and BLM), the total timber supply will decline because the harvest from forestry industry lands in Coos, Curry and Douglas Counties is expected to take a sharp drop beginning in the 1990's, a trend that is to continue through the first decade of the next century.¹²

¹⁰ Comprehensive Economic Development Strategy (CEDS), 1979-80 Action Program (Coos-Curry Douglas Economic Improvement Assoc., 1979), pp. VII-3, VII-5.

¹¹ CEDS, p. VII-15.

¹² CEDS, p. VII-16.

Historically, the output per worker in the lumber and wood products industry has been increasing because of greater mechanization and technological improvements in production processes. This trend is expected to continue.¹³

Canada and the southern states are the chief competitors of the Pacific Northwest's timber industry. The Jones Act assists Western Canada in competing with Oregon for eastern U.S. markets while the southern states, already close to those markets, also have a labor cost advantage and an increasing timber supply.

The projected decline in forest and wood products employment will have secondary effects on the economy, costing perhaps 2.46 jobs in supporting sectors for each primary job lost. ¹⁴

2.4.1.2 Agriculture

In 1978 gross farm sales totaled \$21,429,000 for the County. While agricultural employment has been falling (down to 590 in 1978 from 680 in 1972), farm output measures in real dollars has been rising (up an average of 4% per year from 1971 to 1976). This compares favorably to a State increase in farm sales of about 1% per year between 1971 and 1976. However, potential for expansion is limited because of distance from major markets.

Dairy products, cattle and calves, and cranberries are the major agricultural products of the County. Other important agricultural products include sheep and hay.

2.4.1.3 Fishing

Coos County is an important coastal fishing area. In average landings between 1971 and 1975, Coos County ranked second among Oregon counties. The value of landings in 1977 totaled over \$11,000,000.

By weight, shrimp and groundfish tend to dominate yearly landing totals; by value, salmon usually heads the list. The future of the salmon fishery, however, is uncertain. Salmon stocks are down and the salmon fishing season has been shortened in recent years. At the same time, two major private salmon aquaculture facilities in Coos Bay have begun to operate. Though they may significantly improve the fishery, their long- range effects are still difficult to predict.

Previously unavailable markets are opening up because of the Fishery Conservation and Management Act of 1976. A significant local black cod fishery has developed and the Pacific whiting resource, which is centered off Coos Bay represents potential landings several times greater than the total current landings of all species. Development of a whiting fishery, however, would require substantial investments, investments that are unlikely to be forthcoming until several problems and risks are resolved or mitigated. ¹⁶

While much of the fish landed in the County is processed here, a great deal is shipped out for full or final processing. The Port of Coos Bay has been active in attempting to encourage new processors to locate on Coos Bay and existing processors to expand.

2.4.1.4 Tourism

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¹³ CEDS, p. VI-18.

¹⁴ CEDS, p. VII-20.

¹⁵ CEDS, pp. VII-38-40.

¹⁶ CEDS, p. VI-33.

The importance of tourism to the county's economy is undeniably significant but difficult to measure. It has been estimated that in 1973 the average per capita expenditure by out-of-state tourists was \$10.87 per person per day. ¹⁷ In a 1972 study, the O.S.U. Department of Economics estimated that tourist expenditures in Coos County by both out-of-staters and Oregonians exceeded \$21,700,000 in 1969. 18 Other figures suggest that State parks alone have generated about \$22,000,000 annually for Coos County businesses in recent years. ¹⁹ Employment, which fluctuates seasonally, was estimated to average 450 during 1973.²⁰

Major attractions are the ocean, dunes, State parks, rivers, lakes and bay. Fishing, boating and camping (often combined) are major tourist activities.

The future of the tourist industry is difficult to predict. While historically this sector of the economy has grown, a decreasing supply of gasoline could easily reverse the trend.

2.4.1.5 Mining and Mineral Production

Sand, gravel and crushed and broken stone are the major products of mining activity in the County. Production is almost entirely for local consumption and amounts vary considerably, depending on the level of construction activity in the County. The Department of Geology and Mineral Industries lists the 1976 dollar value of mineral production in Coos County as \$1,858,000, barely 1% of the State total for that year.²¹

Future mineral production in the County depends on several factors, including market \ situations and changes in mining technology. Gas exploration leases have been sold in the County. Chromite ore, gold and possibly other heavy metals in black sands deposits on marine terraces on and off-shore may become economically minable in the future. Coal deposits are not expected to help supply national or even local energy needs due to the insufficient quality and quantity of the resource. Development of mining and mineral industries are not expected to contribute significantly to the local economy in the foreseeable future. (REV 01/88 ORD 87-11-016L)

2.4.2 Non-basic Sectors

The trade and service sector accounted for almost 30% of the total County employment in 1978. Growth trends in this sector indicate that local dollars are being used to buy goods and services outside the County. Between 1960 and 1970 employment in trades and services increased more slowly in Coos County than it did in the State of Oregon as a whole. While the situation improved somewhat between 1970 and 1978, indicating a slowing in the trade drain, the County still lags behind the State:

Table 3 Annual Average Employment in Trades & Services, 1970-1978

	TRAD	E		SERV	ICE
1970	1978	Percent	1970	1978	Percent

¹⁷ Economic Survey and Analysis of the Oregon Coastal Zone (Oregon Coastal Conservation and Development Commission, 1974).

²¹ CEDS, p. VII-46.

An Economic Analysis of Resource Allocation in the Oregon State Highway Division

¹⁹ See "Oregon State Parks" in Section 4.8, "Recreation," this document.

²⁰ Economic Survey and Analysis of the Oregon Coastal Zone.

			Increase			Increase
Coos County	2,890	4,400	52.2	2,190	2,930	33.8
State	162,000	254,000	57.0	112,700	174,000	54.4

Source: CEDS, p. VII-47.

Construction activity is dependent on population trends, national money markets, the prevailing interest rates, local factors such as housing shortages, and State and Federal programs such as Highway 42 reconstruction. Employment levels in this sector fluctuate accordingly. While construction was up in 1977 and 1978, high interest rates in 1978-1980 have caused a decline in employment in this sector.

Transportation, communications and utilities accounted for 7.2% of the total employment in the County in 1978. Employment in this sector is relatively stable.

While government (which includes teachers and others in education) has expanded fairly rapidly in the last six years, increased budgetary constraints are expected to limit future growth. ²²

²² CEDS, p. VII-50.

2.5 LAND USE

The major land uses in the County are forestry and agriculture. Over 84% of the total land area of the County is forestland. Of this, 847,000 acres, or 82.5%, is classed as commercial forestland.

According to the Commerce Department's definition of farm, there were 782 farms in Coos County in 1982 (Census of Agriculture, Preliminary Report), containing a total of 167,841 acres. Some of this total is woodlot and is included in the commercial forest land acreage figure above.

Compared to most counties in Oregon, Coos County has a very low proportion of land suitable for agriculture production. In part because of climatic factors, this land is also of lesser quality than that in the Willamette Valley (Coos County <u>has no SCS Class I soils</u>). However, through (1) good management techniques, (2) previous diking and draining of wetlands, and (3) clearing of forested areas, local farmers have put such land into agricultural production.

Dairy products, cattle and calves are the major agricultural products from lowland and hilly areas; cranberries are the major crop grown on the marine terrace in the Bandon vicinity and south.

Of the remaining land of the County, approximately 2% is committed to rural residential development. The highest concentration of development in the unincorporated areas of the County is in the Coos Bay area. The eight incorporated cities of the County cover about 1% of its area. Commercial and industrial uses are generally concentrated in urban and urbanizing areas. However, many industries are located elsewhere in the county. The location of industrial uses has been influenced by the limited amount of suitable industrial land in the County, by reliance on water transportation and by the need to locate near a particular resource. Consequently, there are also industrial lands in Charleston; near Norway, Powers, Dellwood, Hauser and Highway 101 south of Bandon; and on North Spit and Isthmus Slough.

About 66.8% of the land in the County is privately owned. Of the balance, about 24.1% is Federally owned, with the Bureau of Land Management controlling two-thirds of that total.

3. NATURAL RESOURCE AND HAZARDS INVENTORY AND ASSESSMENTS

- 3.1 Agricultural Lands
- 3.2 Forest Lands
- 3.3 Mineral and Aggregate Resources
- 3.4 Fish and Wildlife Resource I Habitats
- 3.5 Historical, Cultural, Archaeological Resources, Natural Areas, and Wilderness
- 3.6 Water Resources
- 3.7 Unique Scenic Resources
- 3.8 Dunes and Non-Estuarine Coastal Shorelands
- 3.9 Natural Hazards
- 3.10 Air, Land, and Water Quality
- 3.11 Ocean Resources
- 3.12 South Slough Estuarine Sanctuary

3.1 AGRICULTURAL LANDS

3.1 AGRICULTURAL LANDS - INVENTORY AND ASSESSMENT

1. Statutory Framework

1.1 <u>Introduction – Intent of the Oregon Legislature</u>

Agriculture is the second greatest industry in Oregon, after lumber and wood products. Land suited to agricultural use is a valuable resource which is under pressure from development for other uses.

In response to a state-wide problem of loss of prime agricultural land to non-resource producing uses, in 1973 the Oregon Legislature acted to stem the rapid conversion of agricultural land to other uses. The Legislature's agricultural land use policy was codified in ORS 215.243:

"215.423 Agricultural land use policy. The Legislative Assembly finds and declares that:

- (1) Open land used for agricultural use is an efficient means of conserving natural resources that constitute an important physical, social, aesthetic and economic asset to all of the people of this state, whether living in rural, urban or metropolitan areas of the state.
- (2) The preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources and the preservation of such land in large blocks is necessary in maintaining the agricultural economy of the state and for the assurance of adequate, healthful and nutritious food for the people of this state and nation.
- (3) Expansion of urban development into rural areas is a matter of public concern because of the unnecessary increases in costs of community services, conflicts between farm and urban activities and the loss of open space and natural beauty around urban centers occurring as the result of such expansion.
- (4) Exclusive farm use zoning as provided by law, substantially limits alternatives to the use of rural land and, with the importance of rural lands to the public, justifies incentives and privileges offered to encourage owners of rural lands to hold such lands in exclusive farm use zones."

This land use policy was implemented through the establishment of Exclusive Farm Use (EFU) zoning and taxation assessment. The E.F.U. zoning was later embodied in State-wide Planning Goal #3 (Agricultural Lands).

1.2 The Agricultural Land Use Statutes - (Chapters ORS 215.203 - 215.273)

The authority for establishing E.F.U. zones within counties is set out in ORS 215.203(1): land within such zones shall be used exclusively for "farm use". For the purpose of Exclusive Farm Use designation, ORS 215.203(2) defines farm use as:

(a) As used in this section "farm use" means the current employment of land including that portion of such lands under buildings supporting accepted farming practices for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or by feeding, breeding, management and sale of, or the produce of livestock, poultry, fur-bearing animals or honey bees or for dairying and the sale of dairy products or any other agricultural or horticultural use for husbandry or any combination thereof. "Farm use" includes the preparation and storage of the products raised on such land for man's use and animal use and disposal by marketing or otherwise. It does not include the use of land subject to the provisions of ORS Chapter 321, except land used exclusively for growing cultured Christmas trees, as defined in Subsection (3) of this section.

- (b) Current employment" of the land for farm uses includes (A) land subject to the soil bank provisions of the Federal Agricultural Act of 1956, as amended; (B) land lying fallow for one year as normal and regular requirements of good agricultural husbandry; (C) land planted, in orchards or other perennials prior to maturity; and (D) any land constituting a woodlot of less than 20 acres contiguous to and owned by the owner of land specially assessed at true cash value for farm use even if the land constituting the woodlot is not utilized in conjunction with farm use. (E) Wasteland, in an exclusive farm use zone, dry or covered with water, lying in or adjacent to and in common ownership with a farm use land and which is not currently being used for any economic farm use; (F) land under dwellings customarily provided in conjunction with the farm use in an exclusive farm use zone; and (G) land under buildings supporting accepted farm practices.
- (c) As used in this subsection, "accepted farming practice" means a mode of operation that is common to farms of a similar nature, necessary for the operation of such farms to obtain a profit in money, and customarily utilized in conjunction with farm use.

ORS 215.203(3) goes on to define "cultured Christmas trees" for the purposes of "farm use."

The key to the understanding of the definition of "<u>farm use</u>" is the clause "<u>for the primary purpose of obtaining a profit in money.</u>"

The test of 'farm use' is that the primary purpose of the use of that land is to make a monetary profit. However, the failure to obtain a profit in any particular year is not material. The Legislature added the word 'primary' in the 1979 session to strengthen the intent of this provision.

In addition, certain "non-farm" uses are permitted outright within the E.F.U. zone, as listed in ORS 215.213 (1). These uses are as follows:

- (a) public or private schools
- (b) churches
- (c) the propagation or harvesting of a forest product
- (d) utility facilities necessary for public service, except commercial facilities for the purpose of generating power for the public use by sale
- (e) the dwellings and other buildings customarily provided in conjunction with farm use
- (f) operations for the exploration of geo-thermal resources as defined by ORS 522.055
- (g) a site for the disposal of solid waste that has been ordered to be established by the Environmental Quality Commission under ORS 459.049, together with equipment, facilities or buildings necessary for its operation."

<u>Commentary</u>: It should be noted that forestry is specifically recognized as a farm use as are farm dwellings and farm buildings. This is of special importance in Coos County, where forest management is an integral part of the farm economy and practices.

Section 2 of ORS 215.213 set out the "non-farm" uses which may be permitted subject to the approval of the County governing body or its designate (e.g., the Planning Commission) in areas under E.F.U. zoning:

- (a) commercial activities that are in conjunction with farm use;
- (b) operations conducted for the mining and processing of geothermal resources as defined by ORS 522.005 or exploration, mining and processing of aggregate and other mineral resources or other sub-surface resources;
- (c) private parks, playgrounds, hunting and fishing preserves and campground;
- (d) parks, playgrounds or community centers owned and operated by a governmental agency or a non-profit community organization;
- (e) golf courses;
- (f) commercial utility facilities for the purpose of generating power for public use by sale;
- (g) personal-use airports and helicopter pads²³;
- (h) home occupations carried on by the resident as an accessory use within dwellings or other buildings referred to in subparagraph (F) or (G) of paragraph (b) of subsection (2) or ORS 215.203;
- (i) a facility for the primary processing of forest products, provided that such facility is found to not seriously interfere with accepted farming practices and is compatible with farm uses described in subsection (2) of ORS 215.203. Such a facility may be approved for a one-year period which is renewable. These facilities are intended to be only portable or temporary in nature. The primary processing of a forest product, as used in this section, means the use of a portable chipper or stud mill or other similar methods of initial treatment of a forest product in order to enable its shipment to market. Forest products, as used in this section, means timber grown upon a parcel of land or contiguous land where the primary processing facility is located.
- (i) The boarding of horses for profit.
- (k) A site for the disposal of solid waste approved by the governing body of a city or county or both and for which a permit has been granted under ORS 459.245 by the Department of Environmental Quality together with equipment, facility or buildings necessary for its operation.

<u>Commentary</u>: It should be noted that the Legislature recently added Subsections (h), (i), (j), and (k). Of special relevance in Coos County is the provision for temporary or portable stud mills or chippers for "primary processing of forest products." The ability to do this is vital to the normal operation of most farms in Coos County.

²³ See ORS 215.213 2(g) for further definition.

Section 3 of ORS 215.213 provides that non-farm dwellings may also be established, <u>provided that</u> certain specific findings are made:

"Single-family residential dwellings, not provided in conjunction with farm use, may be established, subject to approval of the governing body or its designate in any area zoned for exclusive farm use upon a finding that each such proposed dwelling:

- (a) is compatible with farm uses described in subsection (2) of ORS 215.203 and is consistent with the intent and purposes set forth in ORS 215.243; and
- (b) does not interfere seriously with accepted farming practices, as defined in paragraph (c) of subsection (2) of ORS 215.203, on adjacent lands devoted to farm use; and
- (c) does not materially alter the stability of the overall land use pattern of the area; and
- (d) is situated upon generally unsuitable land for the production of farm crops and livestock, considering the terrain, adverse soil or land conditions, drainage and flooding, vegetation, location and size of the tract; and
- (e) complies with such other conditions as the governing body of its designate considers necessary."

These are the major provisions of the Statutes on Agricultural Lands. There are a number of other provisions the most significant of which are summarized below;

215.215 Re-establishment of non-farm use

This section allows the County to re-establish a non-farm use through its zoning regulations in an EFU zone if unintentionally or accidentally destroyed to its "previous nature and extent." Lots in the interior of an EFU zoning district with non-farm use established may also be placed in some other zone. There is no need specified for a public review in either case.

215.253 Prohibition against restrictive local ordinances affecting farm use zones

This section prohibits jurisdictions from adopting ordinances which restrict "accepted farming practices" within an EFU zone.

215.263 Review of land divisions in exclusive farm zones

This section <u>enables</u> counties to require review and approve or disapprove proposed division of land in an EFU zone resulting in parcels of 10 or more acres. At the same time, it requires the County to review any proposal to create lots of less than 10 acres. The County is required to find that such division is in conformation with the Legislature's overall agricultural land policy (ORS 215) before approving it.

1.3 <u>Statewide Planning Goal #3 (Agricultural Lands)</u>

In order to implement the provisions of the EFU Statutes, the Legislature adopted the Agricultural Lands Goal (#3). The Goal is reproduced in full below:

GOAL: To preserve and maintain agricultural lands.

Agriculture lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space. These lands shall be inventoried and preserved by adopting exclusive farm use zones pursuant to ORS Chapter 215. Such minimum lot sizes as are utilized for any farm use zones shall be appropriate for the continuation of the existing commercial agricultural enterprise -within the area. Conversion of rural agricultural land to urbanizable land shall be based upon consideration of the following factors: (1) environmental, energy, social and economic consequences; (2) demonstrated need consistent with LCDC goals; (3) unavailability of an alternative suitable location for the requested use; (4) compatibility of the proposed use with related agricultural land; and (5) the retention of Class I, II, III and IV soils in farm use. A governing body proposing to convert rural agricultural land to urbanizable land shall follow the procedures and requirements set forth in the Land Use Planning Goal (Goal 2) for goal exceptions.

<u>Commentary</u>: The following points should be noted: Minimum lot sizes are not mandatory. However, if used, they should be keyed to the requirements of "the existing commercial agricultural enterprise within the area." The definition of "commercial" is therefore an important one. (ii) Conversion of agricultural land to "urbanizable land" requires consideration of five factors, and should follow the "Exception" procedure laid down in Goal #2. The four findings necessary to take a Land Use Exception are essentially identical to the five factors in Goal #3.

In defining "Agricultural Land", Oregon Administrative Rules, Chapter 660, Division 5-Land Conservation and Development Commission has provided the following interpretation:

"AGRICULTURAL LAND" as defined in Goal #3 includes:

- (a) Lands classified by the U.S. Soil Conservation Service (SCS) as <u>predominantly Class I-IV Soils</u> in Western Oregon and I-IV soils in Eastern Oregon;
- (b) Other lands in different soil classes which are <u>suitable for farm use</u> as defined in ORS 215.203 (2)(a), taking into consideration soil fertility; <u>suitability for grazing</u>; climatic conditions; existing and future availability of water for farm irrigation purposes; <u>existing land use patterns</u>; technological and energy inputs required; and <u>accepted farming practices</u>; and
- (c) land which is necessary to permit farm practices to be undertaken on adjacent or nearby agricultural lands.

In addition, counties may designate agricultural land as marginal land and allow those uses and land divisions on the designated marginal land as allowed by ORS 197.247.

<u>Commentary</u>: The following points should be noted;

(i) Agricultural land is that of predominantly I-IV soils; that is, small scattered units of soils in this class are not intended to be defined as agricultural lands. At the same time, there are often units of

lower class soils <u>within</u> a general area of predominantly Class I-IV soils. The intent of the Goal is to define the <u>general area</u>, together with the lower soil class "inclusions" as "agricultural lands". The word "predominantly" provides for some reasonable flexibility in the identification of agricultural lands."

- (ii) Additional criteria are provided by the 'other lands' clause: In Coos County there are extensive areas of grazing land and cranberry growing in lower soil classes which should be identified as agricultural lands on the basis of the following criteria: "Suitability for grazing," "existing land use patterns" and "accepted farming practices."
- (iii) As forest management and timber harvest is classified as a use, it is possible to include forest land under farm ownership and "agricultural land" under the "accepted farming practices" criteria (especially since these lands are often also used for grazing). However, equally, it is also permissible to place such land in a Forest Lands designation under the Goals. [See discussion below of the LCDC policy paper "Agriculture/Forestry Goals Interrelationship."]
- (iv) "Farm Use" is defined as in ORS 215.203 and includes the non-uses authorized in ORS 215.213.
- (v) Marginal Lands (ORS 197.247) The County opted <u>not</u> to apply the marginal land criteria as established in ORS 197.247 to agricultural or forest lands. Under ORS 197.247, a county may identify marginal lands on the basis of productivity or parcelization. If it opts for the productivity, the proposed marginal land must not have been managed for three of the five calendar years preceding January 1, 1983 as part of a farm operation producing \$20,000 or more per year in gross income, or a forest operation capable of producing \$10,000 or more per year in gross income averaged over the timber growth cycle.

The law also establishes more specific review criteria for the approval of farm and non-farm dwellings in EFU zones. Under this EFU zone criteria, farm dwellings are still allowed outright on any EFU parcel, provided that it is at least as large as the minimum parcel size which LCDC has acknowledged for EFU zones in the county. The law prohibits non-farm dwellings on Soil Conservation Service Class I-III soils, but also deletes three of the five existing criteria for the approval of non-farm dwellings. It makes more precise the two remaining criteria - "noninterference" with farming practices on nearby lands and "unsuitability of the site" for farming.

The County evaluated the potential of applying the marginal land criteria to lands within the County and found that the benefits obtained would be minor in comparison to the more restrictive EFU criteria that would be applicable to all remaining EFU properties. Specifically, there are very limited areas within the county that would meet the ORS 197.247 criteria for marginal lands.

1.4 Agricultural land and forest land inter-relationship

In Coos County, it is frequently the case that a single farm ownership will contain both agricultural bottomlands and forested uplands. Frequently, the uplands will also contain cleared areas (especially on south exposures) which are used for grazing. Grazing also occurs on extensive hill ranches, where cleared lands or natural prairies are interspersed among forested areas. Sheep or cattle often utilize the forested areas for shelter. Timber harvest is an integral part of the agricultural economy in Coos County both for the lowland farms with some adjacent uplands, and for the larger ranchers. Income from timber sale frequently is used to overcome short-term problems due to depressed prices or rising operating costs. Grazing and timber management and harvest are basically compatible with one and another as uses of these forested hill lands except where newly established seedlings must be protected from trampling by grazing. Furthermore, in the Statewide Planning Goals, grazing is recognized as a 'forest use.' Thus, such

could be designated as either 'Forest' or 'Agriculture' in the Comprehensive Plan. LCDC has addressed the problem of clearly distinguishing the two designations in its policy paper "Agriculture/Forestry Goals Inter-relationship." In addition to the overlapping uses of these lands, there may be an overlap in the definitions of agricultural and forest lands. Specifically, there are many areas in Class I-IV soils (technically agricultural lands) which are under forest cover and are being managed as such. These lands meet either definition. The policy paper states:

"When specific inventoried lands satisfy the definition requirements of Goals 3 and 4, an exception is not required to show why one resource designation is chosen over another. The plan need only document the factors that were used to select an agricultural, forest or agricultural/forest designation."

The policy paper also states that these factors must be applied "based on site specific situations and plan policy."

1.5 <u>Criteria used to distinguish Agriculture and Forest Lands designations in Plan Map where overlap occurs.</u>

The principal test for deciding which designation a particular area should be placed in, is whether the <u>primary</u> use is agriculture or forestry. The nature of the vegetative ground cover is one key indication of the primary use of the land. There are three basic types of situations to be examined:

(i) Where non-Class II-IV soils are used for upland grazing.

These lands are identified in the Plan from the County Assessor's records of land classified as agricultural lands for "Exclusive Farm Use" taxation purposes. These lands are separately identified as "grazing lands" in the Agricultural Lands inventory. Air photographs are used to check these areas to ensure that they are currently predominantly open rangelands with only scattered tree growth. On this basis the area indicated by tax records may be increased or decreased. These lands are then designated as agricultural lands on the Plan map on the basis of the following factors: suitability for grazing, existing land use patterns, and accepted farming practices. Site-specific consideration is given each area, to ensure that the ground cover indicates grazing as the primary use. The plan recognizes that the hill grazing land is of great importance to the economy and is accepted as the predominant farming practice in certain areas of Coos County.

(ii) Where soils of the Blacklock Series (Class VIIw) occur

These soils are naturally suited to cranberry bogs and are separately identified in the agricultural lands inventory. Such areas may or may not be currently used for cranberry bogs. This depends largely on three factors: (i) the availability of irrigation water, (ii) the growth of the market for the product and (iii) availability of capital. Blacklock soils tend to be intermingled with other agricultural soils. However, entire areas within this soil association may be under forest cover. Cranberry bogs tend to occur in localized clusters, due to their heavy dependence upon surface water supplies and the need to protect operators from intrusion or conflicting uses.

These localized areas are identified from air photographs and are designated as agricultural lands based on the following factors: irrigation potential, existing land use patterns, technological and energy inputs and accepted farming practices. The Plan recognizes the importance of cranberry growing to the local economy and that it is the predominant farming practice in certain local areas

of the County. Other areas in the Blacklock soil series are placed in the forest land designation on the basis of their forest cover.

(iii) Where Class II-IV soils are in use as forest lands.

Extensive areas of land on the flat, coastal plain have Class III or IV soils where no current agricultural use is occurring and the land is under forest cover. In addition, in upland areas in the interior of the County, level ridge tops and benches generally have Class III or IV soils. However, they are generally under unbroken forest cover. In each of these typical cases, there is assumed to be little probability of future clearing and conversion to agricultural use. The cool and windy climate of the coastal plain, coupled with the naturally low fertility of the sandy soils make this area poorly adapted to agricultural crops other than cranberries. This is vital to the future economic health of the County. Due to these facts and the existence of forest cover, it is considered appropriate to designate these lands as "forest lands" in the Plan. Certain exceptions occur to this general rule. In some narrow inland valleys, forest cover may alternate with open farmland, while the entire valley floor has Class II-IV soils. In such a situation, it is considered that due to the intermixture of such uses, the flat topography and accessibility of these lands, future conversion to agriculture is a distinct possibility. Thus, an agricultural designation is applied to the entire valley floor. However, ownership patterns must also be considered. In certain cases, narrow valleys with Class II-IV soils, especially in their upper reaches, may be owned by major lumber companies, and no agricultural use is occurring. With such site-specific situations, a 'forest land' designation is considered more appropriate, consistent with surrounding lands in the same ownership.

Thus, different types of cases can be distinguished where land may be identified as either agricultural and forest land. The most appropriate designation is based on the primary use of the land taking into account the factors used in the Goal to identify "other lands suitable for farm use," and to define "forest lands" and considering site specific situations. A plan policy is presented in the "Policy" section of the Plan to ensure the appropriate level of protection for these "overlapping" lands and to ensure that either forest or agricultural practices can occur without interference.

1.6 Identification of Agricultural Lands

Areas of agricultural land in Coos County have been identified in a script of 7 maps at a scale of 2'' = 1 mile. Three separate categories are identified:

- 1. S.C.S. Class I, II, III and IV soils, generally considered to be suitable for agriculture in western Oregon.
- 2. S.C.S. Class VIIw soils, considered important for cranberry production in Coos County.
- 3. Rangeland and natural prairies used for livestock grazing.

The soils classification mapping is based on surveys completed by the Soil Conservation Service for the western part of the County. Work in progress by the same agency was referred to for the mapping of the remainder of the County and this was corroborated by reference to the general soils map of the South Coast Basin, published by the State Water Resources Board. The mapping of rangeland and natural prairies is based on information provided by the Coos County Assessor's Office, as noted in 1.5 (i) above.

1.7 <u>Designation of Agricultural Lands</u>

The Plan proceeds from the <u>identification</u> of agricultural lands on inventory maps to the <u>designation</u> of agricultural lands on the Plan map. This part of the process involves the <u>elimination</u> of certain categories of land initially identified as agricultural lands. These general categories are as follows:

- (i) Lands more appropriately designated as Forest Lands as discussed in 1.5 above.
- (ii) Land already developed or "substantially committed" to rural or urban residential, commercial, industrial or other urbanized uses. See the Rural Residential paper, Section 4.0 for criteria for distinguishing 'committed' rural residential areas.
- (iii) Land in public parks for recreation areas
- (iv) Land shown to be needed for future rural residential use, and the subject of a Land Use Exception to the Agricultural Lands Goal (see Exception statement).
- (v) Land within urban growth areas (UGA's) needed for future urbanization, (see individual UGA reports).

All other lands identified as "agricultural" are designated as such in the Plan map. Total acreages of land within the agricultural lands designation for each of the four land use alternatives are shown in the 'Land Use Alternatives' Section, and are as follows:

Alternative 1 - 89,380 ac. Alternative 2 - 89,905 ac. Alternative 3 - 103,105 ac. Alternative 4 - 105,585 ac.

1.8 Application of minimum lot size and performance criteria provisions of Goal #3

Goal #3 does not require jurisdictions to establish mandatory minimum lot sizes or mandatory performance standards for creating new parcels and/or uses in exclusive farm use zones. However, if existing commercial agricultural enterprises are to be protected, the land must remain in units which are appropriate in size to preserve and maintain the integrity of the agricultural industry. In view of the inherently different agricultural uses requiring protection, Coos County has opted to establish a minimum lot size on EFU parcels currently or potentially let to cranberry production, and performance standards on all other EFU zoned properties for purposes of creating new parcels and/or establishing uses.

It is recognized that by not having a minimum lot size on EFU parcels, exclusive of cranberry areas, additional administrative time, more public hearings, and increased uncertainty among land owners as to how the standards would be applied, may become apparent. However, these increased inconveniences will be off-set by obtaining increased flexibility with the performance standards in reviewing land divisions and/or uses.

The intent of the performance standards is to preserve the existing commercial agricultural industry and yet maintain the discretion to appropriately justify the creation of various sized commercial farm parcels (so as to increase commercial agricultural output in the County). With the majority of EFU lands situated as small finger valleys intertwined throughout the County, and scattered among commercial forest uses, this parcel by parcel review process will result in justifying farm units (or non-farm parcels) in accordance with actual or potential use of the land in view of the existing terrain and management

techniques. In contrast, an established minimum lot size would result in lumping together large acreages and mixed ownerships regardless of land use patterns, terrain and individual management objectives of the land. In addition, the performance EFU zone will allow for establishing lot sizes appropriate for those existing commercial agricultural uses such as flower bulbs, rhododendrons, berry crops, nurseries and greenhouses which under a minimum lot size whose intent was to protect livestock grazing would be penalized needlessly. Performance standards established for EFU parcels are in accordance with Goal #3 which states, "minimum lot size standards can be applied in various ways, including but not limited to determining performance standards, which are used to decide appropriate lot sizes for farm and non-farm uses on a case by case basis.

The minimum lot size applied to EFU-10 parcels within the County are applied only where cranberry production currently is or potentially can be accommodated. This minimum lot size, established for a specific use, is in accordance with Goal #3 which states, "any minimum lot size or sizes shall be appropriate for the continuation of the existing commercial agricultural enterprise within the area."

1.9 Definition of 'Commercial Agriculture'

In accordance with the Oregon Administrative Rules, Chapter 660, Division 5 – Land Conservation and Development Commission, the definition of commercial agriculture is as follows:

"COMMERCIAL AGRICULTURAL ENTERPRISE" consists of farm operations which will:

- (a) Contribute in a substantial way to the area's existing agricultural economy; and
- (b) help maintain agricultural processors and established farm markets;
- (c) when determining whether a farm is part of the commercial agricultural enterprise, not only what is produced, but how much and how it is marketed shall be considered.

The type and value of products produced and how they are marketed are key factors in identifying the existing commercial agricultural enterprise. Owner characteristics, such as percent of income from farming and primary occupation, do <u>not</u> necessarily define a commercial farmer, or a commercial farm unit. Commercial agriculture in Oregon is supported in part, by less than full-time farmers. However, profitability or gross farm income is a factor in determining whether a farm operation is <u>part</u> of the commercial agricultural enterprise. Appropriate minimum lot size or performance standards as are utilized for any farm use zone shall be appropriate for the continuation of the existing agricultural enterprise within the area.

The inclusion of part-time or "small-acreage" farmers is of special relevance to Coos County, where a significant volume of farm products are produced by these farmers. This is substantiated in the sections which follow discussing farm size distribution and types of agricultural practices and products.

1.10 Property taxes on agricultural lands

Statutes provide for an Exclusive Farm Use tax to provide an incentive to maintain lands in farm use. The tax provides a considerable reduction over a tax based on regular market value. The tax is automatically applied to land in an EFU zone where the property is used primarily to make a profit in farming (see Table #1 below). In addition, there is a tax applicable to lands not in the EFU zone but which qualify for the agricultural tax benefits based on current farm practices on the property. This tax also provides for a break, based on market value as farm land rather than whatever the "highest and best use" may be.

The 'unzoned farmland' tax break is particularly useful to landowners with small farms on the edge of rural residential areas, for instance, when the tax rate would otherwise be based on "homesite" use. This tax incentive has an income qualification, and must be specially applied for in the first year, but thereafter is automatic. In either case, there is a penalty if the land is converted by the owner to some other use of higher value. In the case of the EFU tax, back taxes are due for up to the last 10 years based on the new uses.

One provision of the EFU tax statute has caused some criticism in Coos County. Only up to 20 acres of farm woodlot may be taxed at Exclusive Farm Use values, though in this area most farms contain considerably larger acreages of woodlot as an integral part of the farm operation. There have been proposals to ask the Legislature to relax this provision. Meanwhile, the County Assessor's Department taxes forest land in exceeding of 20 acres in an EFU zone on forest land values, where this is determined to be "highest and best use," or otherwise as "designated forest land provided the landowner first makes an application for this tax break. If no application is made, the land is simply taxed on "market value" basis, which may be considerably higher in some areas than just "forest land". Currently, forest land values are higher than agricultural land values on hill land, which means that the 20-acre limitation places an extra tax burden on owners of hill land, in an EFU zone where grazing is the primary use. 24

²⁴ Ref. George Backman, Deputy Communication, April 1980.

	EFU	"UNZONED FARMLAND"
Criteria	In EFU zone	In any other zone, land must now be used primarily for making a profit from farming, must have been used for farming for the two previous years, and must meet the income requirements in three of the five previous years
Income Requirements	Used primarily to make a profit in farming	Gross annual income ²⁵ of at least \$500, if under 5 acres; \$100/acre if 5-20 acres; \$2,000 if over 20 acres.
Receipt of Tax Benefits	Automatic	Upon application for the first year, thenceforth automatic
Certain Special District Levies ²⁶	Not subject to	Subject to
State Inheritance Tax	Based on fair market value as farmland	Based on fair market value as farmland
Penalties	Tax penalty for conversion at owner's request. Back taxes payable up to a maximum of 10 years.	Penalty for failure to inform County Assessor if qualifications are not met. If farmland loses its special assessment, you will be charged an additional tax which is the difference between the tax you would have been paying if property had not received farm-use assessment and the tax paid during the last year of special assessment. Tax difference is multiplied by a number of years of farm assessment, not to exceed five years. Penalty can result in collection of taxes beyond the five year limit. Failure to notify assessor of lost qualifications will result in collection of a 12% interest on the taxes after the notice should have been given. A 20% penalty also imposed on the additional taxes owed after the required notice.
Limitations	Only 20 acres maximum woodlot may be assessed at EFU-value.	No limitation on acreage of woodlands.

²⁵ Gross Income includes value of crops or livestock used by owner and family.
²⁶ See ORS 308.401 – Applies to Sanitary districts and water supply districts.

Volume I, Part 2

Page 34

2. <u>Statistical Data on Farming In Coos County</u>

2.1 Agricultural Production

According to the U.S. Census of Agriculture, Preliminary Report for 1982, there were 782 farms in Coos County. These farms together totaled 167,841 acres, or roughly 16 percent of the total land area of the County (See Table #2 below). Because this data is based on a mail-out rather than an enumerator-taken census, some small part-time farms might not have been included.

AGRICULTURAL DATA SUMMARY COOS COUNTY, 1974, 1978, 1982

TABLE 2

ALL FARMS	1974	1978	1982
Number of farms	650	668	782
Land in farms (acres)	159,225	168,249	167,841
Average size of farm (acres)	245	252	215
Value of machinery & equipment	\$9,876,000	\$11,672,000	\$15,922,000
Value of all agricultural products sold	\$9,947,000	\$15,801,000	\$18,430,000
Value of crops	\$1,611,000	\$2,206,000	\$3,549,000
Value of livestock, poultry, and their products	\$7,040,000	\$13,595,000	\$14,881,000
Livestock inventory:			
Cattle and calves			
Number of farms	556	511	596
Inventory	25,404	27,672	28,795
Hogs and pigs	,	,	,
Number of farms	62	42	43
Inventory	773	629	437
Chickens, 3 months or older			
Number of farms	104	95	133
Inventory	23,290	(D)*	(D)*

Source: 1974 Census of Agriculture

1982 Census of Agriculture, Preliminary Report

(D)* Withheld to avoid disclosing data for individual farms

The primary agricultural commodities are, in order of importance, livestock, timber, and cranberries. In 1983, the total value of all agricultural products produced in Coos County was \$26,005,000, up about 9% from 1979. [See table #6].

	#3

Productive Milk Cow Inventory					
M:11- C		1974	1978	1982	
Milk Cows	_				
	Farms	164	140	137	
	Number	6,247	6,395	6,799	
	Average milk cows/farm	38	45	50	
	-				

Source: 1974 Census of Agriculture

1982 Census of Agriculture, Preliminary Report

Milk cow inventory is based on census information pertaining to cows and heifers that have calved. A productive (milk) cow is one which gives birth each year in order to perpetuate the existence of milk. Those cows which do not give birth in any given year do not as a rule continue in that year to produce milk. Therefore, the census data is accurate to the extent that it measures milk cows that are actually productive.

Table #3 illustrates that in 1982 the average number of productive milk cows on a dairy farm was 50. In 1978 there was an average of 45 milk cows per dairy farm, with an additional three farms with milk cows being in operation. The 1974 data shows an average of 38 milk cows per dairy farm, but there were 27 more farms with milk cows than in 1982. The trend appears to be towards less dairy farms with an increase in the average milk cow herd, as well as an overall increase in the number of productive cows. The production per cow has also increased rapidly.

According to information compiled by Coos County Extension Agents, Lynn Cannon, Arthur Poole, and Steve Fitzgerald, 1983 Coos County <u>Agriculture data shows the value of sales to be 412,736,000 for dairy commodities</u>. This is 48.8% of the total value of all agricultural products in Coos County.

The mild climate, allowing a long forage season and the fertile river valley soils has led to Coos County being the second most important dairy county on the Oregon Coast.

The importance of beef cattle production in the agricultural economy of the County has increased substantially over the last 30 years. Beef cattle numbers have expanded from less than 2,000 in the early 1950s to 11,000 head in 1983.* Beef currently (1983) accounts for 17.5% of the agricultural income.

Table #4

Sheep and Lamb Inventory				
	1974	1978	1982	
Sheep and Lambs	2,7,1	17.0	1702	
Farms	121	163	197	
Number	13,029	28,675	31,467	

Table #4 above illustrates the increasing significance of sheep raising in the county. The number of farms has nearly doubled with the amount of livestock increasing nearly 150% from 1974 to 1982. This substantial increase has been directly related to effective predator control techniques, the effectiveness of

sheep in controlling tansy ragwort on hill lands, and the stable market prices for both sheep and their wool.²⁷ The slight slowdown from 1978 to 1982 in numbers can be attributed to the recession during those years.

Table #5				
		Cranberry Inventory		
Cranberries		1974	1978	1982
Cranoenties	Acres	780	658	811

Cranberries account for approximately 12.4% of the agricultural industry in the County (1983), although this figure probably underestimates the importance of this unusual crop in the County's agricultural makeup. Only five states in the United States produce cranberries and the Bandon area's bogs produce 90 percent of Oregon's total yearly cranberry harvest (and 3.66 percent of the yearly nationwide cranberry harvest). The dollar value produced per acre is quite high in comparison with the County's other agricultural products. The majority of the cranberries grown in Oregon are processed for juice and sauce. Current production levels are based not on the amount of land suitable for berry cultivation but on demand levels and quotas. A potential for expansion of the industry is indicated by a broadening market that includes fast food franchising, increasing exports and improved product distribution to domestic markets. Currently, more acreage has been let to bog production, as indicated by Table #5. However, many of these new bog acreages have been established without contract agreements, which concludes that attempts at new marketing outlets will gradually appear as these new bogs reach maturity in the next few years.

Farm Forestry contributes a significant portion of the County's agricultural economy, accounting for 11.5 percent of the farm income in 1983.

"Coos County has the highest timber producting potential in Oregon, a factor that helps to make forests located on farms a natural source of additional income for farmers."²⁸

This timber potential is a factor of the climate, drainage and soil patterns. The County's farm woodlots yield a diversity of raw material for lumber, poles, veneer, chips, shingles, Christmas trees, decorative greens, firewood, archery stock, burls, and crude drugs. Increases in productivity can be realized through intensive management practices, such as improved planting techniques, animal damage control, precommercial thinning and commercial thinning operations.²⁹

Specialty horticultural crops, including nursery, greenhouse and ornamental crops, and fruit and truck crops together account for 4.1 percent of the County's total agricultural income (1983). This is up 1.1 percent from 1979. As other industries such as fishing and wood products decline there will be an expected increase in production from these sectors. The major limitations are difficulties in transportation of products and unavailability of markets for those products within reasonable distances.

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²⁷ Conversation with Lynn Cannon, April 1983.

²⁸ Coos County Agriculture, 1976; Lynn Cannon, Arthur Poole, Coos County Extension Agents, OSU Extension Service, Ian. 1977

²⁹ 'Coos County Agriculture, 1983'; Lynn Cannon, Arthur Poole, Steve Fitzgerald, Coos County Extension Agents, OSU Extension Service, April, 1983.

A common economic problem for farmers is that prices paid for their products fluctuate considerably, while their operating costs tend to rise constantly due to inflation. The following figures on cattle (calf) prices illustrate the fluctuation in commodity prices:

	1968	1969	1970	1971	1972	1973
\$/cwt	\$26.30	\$30.10	\$32.80	\$33.50	\$40.20	\$52.60
	1974	1975	1976	1977	1978	1979
\$/cwt	\$35.50	\$25.40	\$38.48	\$39.21	\$59.00	\$88.80

Cattle prices were good in 1979, but fell off disastrously in 1974-75. Table 6 and Figure 2 compare estimated total agricultural receipts with an index of prices paid by farmers for the period 1974-79. Earnings rose only gradually between 1974 and 1978, but rose dramatically in 1979, due to good prices paid for dairy products and beef cattle, while productivity costs rose at a more steady rate. Thus, during the years 1974-78, farmers were losing ground against higher costs, while in 1979, they made up the lost ground. Over the whole period, as a result, while costs rose by 55.3%, the value of production rose by 58.1%. However, between 1974 and 1978, costs rose by 36.0% and production rose by only 14.0%.

In order to weather such economic fluctuations, farmers often find it necessary to raise a loan or to sell off some of their standing timber stock. Some farmers feel that they should be permitted to partition off small portions of their land not vital to the farm operation for "either small homesites or as an addition to other farm holdings. This would alleviate cash-flow problems of this kind.

2.2 Land in Agricultural Production

In 1974, the U.S. Department of Commerce, Bureau of the Census defines a farm as follows:

"a farm is defined to include all land on which agricultural operations are conducted at any time in the census year under the day-to-day control of an individual management, and from which \$1,000 or more of agricultural products were sold during the census year. Control may have been exercised through ownership or management, or through a lease, rental, or cropping arrangement. Places having less than the minimum \$1,000 sales in the census year are also counted as farms if they could normally be expected to produce agricultural products in sufficient quantity to meet the requirements of the definition."

Under this definition there were 782 farms for 1982 in Coos County, comprising a total of 167,841 acres.

Table #7

LAND IN FARM PRODUCTION

		1974	1978	1982
Farms				
	Number	650	668	782
	Land in farms (acres)	159,225	168,249	167,841
	Average size (acres)	275	296	215
Irrigated Land				
	Farms	275	296	323
	Acres	8,797	11,655	11,704

Source: (same as above tables)

In 1974, there were 650 farms totaling 159,225 acres, while in 1978, there were 668 farms totaling 168,249 acres. There was an overall increase in the amount of farm acreage as well as the number of farms from 1974-1982. The Census data suggests that there is a current trend towards farms on smaller acreages. The County adopted zoning Regulations on farm lands in 1975. It appears that from 1975 to Dec. 1984, when minimum lot sizes were in effect, there was an overall increase in the amount of farm acreage within the County. From 1978 to 1982, however, the farm acreage decreased by 408 acres. This can be attributed to the increasing need of farmers to sell small portions of marginal farm land for cash flow in order to maintain their overall holdings during the last recession.

Looking back, it can be noted that there was a rather substantial decrease in farm acreage from 1969 to 1974. In using the U.S. Census definition for "farm" prior to 1974 (used in this case to compare 1974 data with 1969 data) there were 754 farms totaling 165,275 acres in 1974, while in 1979, there were 700 farms totaling 196,866 acres. There was therefore an increase in the number of farms during this period. However, the reduction in from acreage during the five year period was 31,591 acres, or 16 percent of the 1969 total acreage.

This apparent loss is not as alarming as it would appear at first sight. Of the "lost" acreage, 2,218 acres were cropland and at least 27,534 acres were woodland. Most of the woodland has probably passed into forest industry ownership. There has been a strong trend toward selling to major forest corporations in recent years. The remaining 4,000 acres would be the maximum attributable to loss to urbanization or acreage homesites, though it is doubtful that all of this acreage was actually lost to production. ³⁰

Whatever the exact amount, the loss of agricultural land should not be taken lightly. Resource producing land including farm land is a finite resource that cannot be replaced when it is lost. Land that transfers between farm land and forest land is not lost from resource production but is simply transferred to a different use.

At the same time that the total area in farms was reduced in the years 1969 to 1982, the number of farms, and thus, the average size of farms has decreased. It is conclusive that a higher level of productivity is

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³⁰ Lynn Cannon, OSE Extension Agent, personal communication, May, 1980.

<u>occurring on lesser acreage</u>. The increased levels of productivity as illustrated by Table #6 for agricultural products indicate that there is more intensive management occurring on remaining farm properties within the County than in previous years.

INFLUENCE OF IRRIGATION

In recent years, an increasing amount of Coos County's agricultural land has been irrigated (Table #7). In 1974, there were an estimated 8,797 acres of irrigated farm land, while in 1982, irrigated farm land increased to 11,704 acres. The 1982 figure indicates that there was a 24.84 percent increase over 1974 in irrigated acres. According to the Water Resources Department (1980), there were 14,570 acres of agricultural land for which water rights have been acquired. (It is necessary to obtain water rights to legally take water from streams and rivers for irrigation purposes). According to John Drolet, Watermaster, District 19,³¹ this figure has since increased but figures are unavailable for 1982. The data indicates that the degree of intensity in management practices are increasing by increasing the number of irrigated acres and thus the overall productivity of the land. The Water Resources Department estimated (1980) that there were an additional 77,000 acres that could be irrigated but which do not have allocated water rights at this time. The estimates of potentially irrigable land were based on soil class and slope; it does not appear that the availability of water or water rights was a consideration. It is certain that water availability is a problem in some parts of the County due to low late summer stream flow. The State Water Resources Board identifies water impoundment sites for agriculture as a need in the County.

2.3 Farms by size, value of sales, and part-time/full-time operation.

As observed above, the average farm size has decreased between 1974 and 1982. The average farm size in 1982 was 215 acres. Table #8 below which is based on 1978 Census data (most complete data available) illustrates that this average figure is misleading, due to the fact that the distribution of farm sizes is 'bi-modal', that is there are two 'peaks' in the data. The two largest groups of farms were in the 10-49 acre class (163 farms or 24.4 percent of the total) and the 260-499 acre class (80 farms or 11.97 percent of the total). Census figures from 1974 show that farms in the 10-49 acre class numbered 154 (23.7% of total farms), and farms in the 269-499 acre class numbered 85 (13.1% of total farms). Of most significance, though, is that in 1974, 176 farms (27.1% of the total) were smaller than 50 acres, in 1978, 205 farms (30.68% of the total) were smaller than 50 acres, and in 1982, 299 farms (38.23% of the total) were smaller than 50 acres. Only 26, 30, and 25 farms, respectively, for these three census dates were greater than 1,000 acres. The data suggests that there is a definite trend within the County towards smaller acreage for farm use.

Most farmers are full owners of their land and live on the farm. However, 49.70 percent of census respondents gave their principal occupation as other than farming, and fully 260 (or about 41%) reported that they spent 200 or more days a year working off the farm. These figures tend to indicate that at least half of the farms in Coos County were operated on a part-time basis. Even where farming is given as the principal occupation, there is no guarantee that the farm is the sole source of support for the farm household.

³¹ Personal communication, John Drolet, Watermaster District 19, Coos County, April, 1983.

³² South Coast Basin Water Resources Plan – Oregon State Department of Water Resources, 1980.

³³ U.S. Census of Agriculture 1974, 1978.

³⁴ U.S. Census of Agriculture, 1982 Preliminary Report.

AGRICULTURAL DATA SUMMARY Coos County, 1978

Farms b	oy Size:				
1	to	9	acres		42
10	to	49	acres		163
50	to	69	acres		62
70	to	99	acres		70
100	to	136	acres		60
140	to	179	acres		64
180	to	219	acres		41
220	to	259	acres		21
260	to	499	acres		80
500 1000	to	999 1999	acres		35 15
	to cres of m		acres		15
	e farm a				252
Tiverag	c rariii a	creage.			232
Farms b			rm Operator		
	Full c	wner		Number	521
	ъ.			Acres	106,744
	Part o	wner		Number	104
	Tomor	. t		Acres	47,361
	Tenai	nι		Number Acres	43 14,144
				Acres	14,144
Farm O	perators	by Plac	ce of Reside	nce:	
		rm ope			554
	Not o	n farm	operated		62
	Not re	eports			52
Farm O			ciple Occup	pation:	226
	Farm: Other				336 332
	Other				332
Farm O	perators	Report	ing Davs of	Work Off Farm:	
None	<u>r</u>				244
1	to	49	days		39
50	to	99	days		24
100	to	149	days		28
150	to	199	days		45
200 day	s or moi	re			260
Farms l	y Value	of Sale			
	00 or mo		<u>.s.</u> .		31
40,000	o or mo	to	99,999		73
20,000		to	39,999		57
10,000		to	19,999		79
5,000		to	9,999		126
2,500		to	4,999		122
2,000		to	2,499		35
1,500		to	1,999		47
1,000		to	1,499		56
Less tha	an		1,000		42

Source: U.S. Census of Agriculture, 1978.

The data (Table #8) for farms by value of sales indicates that only 161 farms, or 24 percent are obtaining gross sales of \$20,000 or more. It is doubtful whether or not farms with a minimum of \$20,000 gross would be able to sustain themselves without outside income, but are included for purposes of a rough estimate to determine the number of self-sustaining farms. From these fitures, it is clear that farming is a totally self-supporting proposition for only the largest landowners or those producing a large volume of high value cash crops (e.g., cranberries).

2.4 Farm Age Factor

Table #9

Operators by Age Group	1982	
Under 25 years	9	
25 to 34 years	63	
35 to 44 years	156	
45 to 54 years	190	
55 to 64 years	192	
65 years and over	172	
Average Age	53.1	
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Source: U.S. Census of Agriculture, Preliminary Report, 1982.

Table #9 illustrates an important aspect of the current farming industry within Coos County. The average age of a farmer in 1982 was 53 while the majority of farmers were age 45-64. 1982 Census data for the State of Oregon shows that the majority of farmers within the state were age 35-54. It appears that Coos County is not maintaining an influx of young farmers to perpetuate the industry as is the rest of the state. This is an important factor in establishing plan policy and ordinance requirements on agricultural land. There is an apparent need to accommodate young farmers initiating their careers in order to provide for the continuation of the existing agricultural enterprises in the area, as well as developing policy which will ensure the preservation of the County's resource lands.

3. DISCUSSION OF MAJOR TYPES OF AGRICULTURAL PRACTICES IN COOS COUNTY

3.1 Historical perspective

<u>Historically, much of the agricultural production of Coos County took place on relatively small-acreage holdings along the Coos and Coquille Rivers and Tenmile Lakes.</u> A diversity of products sustained the settler and his family, and any surplus could be transported by boat to the towns beyond.

The pioneer farmer's earliest market crop was the potato, which was shipped to San Francisco. As poor agricultural practices depleted the soil, potato patches became pastures for a growing dairy industry and creameries attained a dominant position in the 1890's. Though many of the small creameries were eventually combined into more centralized creamery associations, milk production still represented the efforts of many small dairy farms in Coos County.

In the late 1870's, most of the Coos River bottomlands were in fine orchards and a four-story fruit dryer was constructed in 1876 to process apples. As with much of the creamery production, the dried apples were shipped to San Francisco in exchange for gold that was sent back to Coos County by express. In 1910 Coos County ranked third statewide in apple production and also produced marketable quantities of pears, prunes, and five kinds of berries.

A short-lived example of the traditional diversity of Coos County agriculture was the silkworm culturing of the 1890's.

With the coming of highways and truck lines in the 1930's, produce from the Willamette Valley and California began to replace Coos County agricultural products in the local markets. This development signaled the decline of the small-scale highly diversified farm economy in Coos County due to its decreased competitiveness in face of larger irrigated farms closer to the main markets.

Since the 1930's, the principal agricultural, products have remained the same as they are today.

However, fluctuations in prices and other market conditions have caused changes in the relative importance of each type of farm practice. A land use inventory mapped by the Civilian Conservation Corps during the 1950s indicates that a great deal more hill land was then in open grazing than today. This was probably in part the aftermath of the 1936 forest fire which swept inland from Bandon as far as Coquille. Since those days, great acreages have been allowed to re-establish forest cover as timber production was gradually becoming a relatively more economically viable source of many upland areas than cattle and sheep raising.

At the same time, cranberry culture has become localized north and south of Bandon and has died out in the Hauser area, where it began in the 1890's. Expanding markets in recent years have caused a gradual expansion in the acreage of cranberry bogs.

3.2 Current Agricultural Practices

3.2.1 <u>Dairy Farming</u>

Coos County is one of Oregon's leading dairy counties. Dairy farming continues to take place in the traditional areas of the county: the fertile bottom lands of the mainstem Coquille and Coos Rivers and

³⁵ Maps prepared by C.C.C. on file in historical archives in Coos County Planning Department.

some of the adjoining tributary valleys. There are also some dairy operations in the narrow bottoms of the coastal .plain south of Bandon. Since most of these areas are subject to flooding to some extent, farmers often maintain some pasture land on hills or benches for winter feeding. Most dairy land is former tidal marsh, freshwater swamp, or lowlying river which has been diked and drained.

While dairying remains the County's most important source of farm income, the number of dairy farms has decreased, as has the number of dairy cows (currently at 7,800, 1983³⁶). Its continued importance is due largely to increased efficiency and productivity per cow. There is now only one cheese factory in the County, (the Coquille Valley Dairy Co-op in Bandon, which manufactures the Bandon cheeses), and an ice cream manufacturing plant in Myrtle Point, which supplies the Safeway chain. However, the diary operations are still relatively profitable and a stable market with stable prices still exists for their milk products. Currently, most of the milk produced in the County goes to one of the two plants mentioned above.

The mild Coos County climate with its long growing season is excellent for the production of forage, provided irrigation is practiced in the late summer months. Irrigated bottom land is capable of supporting close to one cow plus a calf per acre in some places. The prevalence of-flooding creates two problems: (i) herds must be grazed in higher places during winter and early spring, while they are unable to use the more fertile bottom lands; (ii) persistent flood waters and ponding limit type of forage to course water-tolerant grasses like reed-canary grass in some low-lying areas. Many dairy farmers now grow corn in addition to hay crops and make silage for winter feed.

Dairying is a highly labor and capital-intensive operation, requiring <u>full-time</u> management by the owner-operator. It also often requires skill and stable farm labor, which may be difficult to obtain and hold. In spite of its profitability, dairying is only really attractive to younger prospective farmers if they have already gained experience in dairying.

The high initial capital costs are prohibitive, and loan institutions have tightened money availability for such expenditures. It is therefore difficult to engage in dairying as a full-time operation, unless the land is owned outright, or enough capital can be raised to back a loan large enough to purchase an operation the size that a sufficient return can be made to pay off the loan reliably. Interest rate trends in the past few years have nearly made it impossible for a young farmer to purchase an operation large enough to pay back the loan without an outside income. In addition to financial difficulties facing the young farmer, there is a problem of locating a farm for sale, with sufficient land of the right kind to support a full-time operation. Previous data suggests that most larger, and self- sustaining farms within the county are presently owned by older farmers who have no inclination to sell their property holdings.

Data supplied by the OSU Extension Service, James R. Pease, based on 1978 Census Data shows that for 1978 there were 97 dairy farms in the County comprising of 26,764 acres or roughly 2.6 percent of the total land area of the county, and 15.9 percent of the total farm acreage. While it is apparent that only a small portion of the county is involved in this industry, it is important to point out that cash sales from dairy products resulted in nearly half of the total cash sales for all agricultural products. According to the census, all dairy farms within the County had sales exceeding \$2,500.

³⁶ Coos County Agriculture, 1983, Lynn Cannon, Arthur Poole, Steve Fitzgerald, Coos County Extension Agents, OSU Extension Service, April, 1983.

Dairy Farm by Acres	Total			
Less than 40	5			
40-59	3			
60-79	3			
80-119	8			
120-159	14			
160-239	28			
240-319	12			
320-499	12			
500-999	9			
1,000 or more	3			

Source: OSU Extension Service, James R. Pease, Census Data (1978) on Commercial Agriculture, 1982.

Table 10 above illustrates the distribution of the size of dairy farms in the County. The average dairy farm size is 276 acres, but this figure is misleading. The distinct majority of dairy farms are 160 to 239 acres in size. This is <u>not</u> to be interpreted to be the required amount of acreage necessary for a dairy herd. From Table 3 above, the data concluded that for 1978, the average productive cow herd was only 45 cows per dairy farm. In assessing the existing dairy farm Acreage it is important to realize that most dairy farms in the county raise numerous beef cattle and/or sheep to fully exercise the productive potential of their land on a year-round basis. The predominant commercial agricultural industry is the dairy industry. In determining policy and performance criteria to insure continuation of that industry, the existing average dairy farm size is not as relevant a factor as the actual number of productive dairy cows per farm. The required acreage to sustain 45 head of productive dairy cows is much less than the average acreage data pertaining to existing dairy farms; most of which consist of additional livestock commodities.

The approximate acreage requirements to sustain 45 head of dairy cows would be 1 ½ to 1 ½ acres per cow of fertile bottom land and 10 to 20 acres of hill-land for winter grazing. ³⁷ Total acreage for this operation would be from 66.25 to 87.50 acres. It would be a good management practice to include a few more acres above this figure in order to raise replacement heifers as necessary.

3.2.2 Beef and Sheep Raising

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For reasons that are evident from the above discussion of dairying, there is an increase in beef and sheep raising on the more productive bottom lands in recent years, in place of the traditional dairy operations. Beef cattle numbers in Coos County have expanded from less than 2,000 in the early 1950's to 10,000 head in 1979 [OSU Extension Service]. Sheep population has also increased in recent years, due to the ability to control tansy ragwort and to improved lamb and wool prices. This type of operation is frequently part time, with the owners 'working out' to help support the farm and pay off land costs. This part-time type of operation is frequently the only alternative for younger farmers getting started on a small land base with a view to gradually building up and eventually becoming self-supporting.

³⁷ Personal Communication with Lynn Cannon, OSE Extension Service, April, 1983.

Beef and sheep raising has traditionally occurred on extensive upland ranches, in contrast to the more recent trend of converting bottomland farms to this type of production. Most of these extensive hill ranches are found in the southern half of the County. The main area of sheep ranching is in the southwestern corner of the County, while most of the larger cattle ranches are in the hills above the middle and south forks of the Coquille River, Catching, and Dement Creeks. While bottomlands might support as many beef cattle as dairy cattle (as much as 1 animal per acre), the hill ranches would support perhaps 1 steer per 5 acres and 1 sheep per acre. Under more intensive management it might be possible to support 1 steer per 2 acres or 2.5 sheep per acre. The intensive management of hill ranches varies from almost no active practices (other than fencing and clearing of timber) to burning and seeding in subclover or improved grass, like ryegrass and tall fescue varieties. Some operations plant trees species in selected locations for cover and develop natural water sources. Supplemental feeding may be necessary in winter months and ranches will include some narrow irrigated bottoms along creeks.

Data on costs and returns for a typical sheep operation (at 1974 prices) are provided by the O.S.U. Extension Service (Lynn Cannon, County Extension Agent, personal communication). Based on a flock of 500 ewes and 20 rams on 500 acres with an 80% lamb crop, receipts per ewe were \$22.93 while expenses were \$31.71. Thus, there was a net loss of \$8.78 per ewe. Costs include a figure for the operator's labor. More recent figures (1979) indicate that for the same sized flock with a 110% lamb crop, receipts per ewe were \$62.85, while expenses were \$48.50, for a net return of \$14.35 per ewe. More than 125,000 acres of hill land are used for grazing cattle and sheep. (OSU Extension Service). Over 50% of the hill land under grazing use (some 60,000 ac.) is improved to some extent. This 60,000 acres of hill pasture is a highly productive resource within the County's agricultural system. As pointed out in Section 1.4 above, not all of this land is in SCS Class II-IV soils, but it is essentially agricultural land, and meets the goal definition for "other agricultural lands." Remaining upland areas under the same farm ownerships are under the forest cover and these lands frequently intermingle with open grazing areas. Cattle and sheep will also graze under the forest cover, but the primary use of these areas is for timber production. As mentioned above, receipts from timber production are an important factor in the continuation of the agricultural enterprise in Coos County. Many farmers also engage actively in logging, either as an outside job, or as part of their total land management operation.

3.2.3 Cranberries and Other Specialty Crops

Cranberries are a unique feature of Coos County's agricultural economy and make a significant contribution to total earnings.

Cranberry bogs are found in localized clusters on the coastal plains and south of Bandon. The natural habitat of the wild cranberry on the east coast is the peat bog, and such naturally occurring bog soils (Blacklock soil series referred to above) were originally selected for berry culture. However, these soils are not necessarily the only ones suited to cranberry culture. Modern methods involve extensive modification of the native soil profile. A "hardpan" layer beneath is necessary in sandy soils to maintain a "perched water-table." Most soils in the Bandon area are derived from old sand dune deposits. Blacklock and Bandon sandy loams possess a natural hard-pan layer. Man-made dikes allow most bogs to be flooded to permit the unique type of hand operation whereby the berries are beaten from the plants by machine, floated into a mass and removed from the bog. A reliable water supply is very important, and most bogs require sumps in which surface water can be stored. The coastal climate, with its mild wiinters and cooler temperatures provides an ideal environment for cranberry production very climatic and soil features which make cranberry culture possible and also tend to discourage other types of agricultural uses.

Forest productivity on the immediate coast is also lower due to hard- pan soils and strong coastal winds. There has been some legitimate concern in some cranberry bog areas, especially just east of Bandon, that

increased residential development on domestic wells in the immediate area may eventually lower the groundwater table, thus decreasing vital water supplies for cranberry growers. The coastal lakes and dune formations have been identified as potential sources of irrigation water for future increased cranberry culture.

About 811 acres were harvested by 90-100 growers in 1983 and produced an average of 80 barrels (8,000 lbs.) of cranberries per acre. In 1979, about 658 acres were harvested, producing an average of 129 barrels (12,900 lbs.) of cranberries per acre. The past few years a warming trend in the area has caused the drop in per acre production by increasing vegetative growth and inhibiting maximum bud initiation. The average area planted per operator was ten acres in 1983, with only about 20% of the growers being fulltime farmers. The rest work off the farm while some are retired. As of 1983, approximately 1200 acres of bogs have been established in both Coos and Curry Counties, with the maximum acreage in Coos County. This is a substantial increase in planted acres and is believed to be the result of new markets developing within the area. Newly planted bogs take up to five years to become fully productive. Presently, most locally produced cranberries are sold to Ocean Spray Cranberries, Inc., under a contract system, for marketing throughout the country. In the past, the buyer has controlled the factors of supply and demand to the extent that prices have been relatively stable, while few new operators have been able to go into production. Presently, the national demand for cranberries is increasing and specifically, the demand for cranberries grown in this area has increased due to the intensity of color obtained in products developed from the berries. Cranberry products from berries grown locally do not require any artificial coloration as do products resulting from cranberries grown in other parts of the country. Suitable land for new bogs is available. The main limitations on expansion are the size of the market, water supplies, residential pressure, and the availability of capitol.

The average size of a cranberry farm is about 7-10 acres, though more land is needed for a home and outbuildings, and perhaps for buffering against neighboring uses. Single bogs range in size from 1/4 to 4 acres. The County Extension agent estimates that about 10 acres are probably the minimum needed for full-time commercial production. 38

Other horticultural crops are also well-suited to Coos County. Other small fruits like blueberries, caneberries, and strawberries are grown throughout the County. Farms and nurseries produce a variety of high-value native and introduced plants such as salal, ferns, rhododendrons, dahlias, hollies, daffodils, lilies, bedding plants, house plants and vegetable garden transplants. There are several small nurseries in Coos County producing these specialties, many of them close to or even within urbanizing areas, like Blossom Gulch and Isthmus Heights, (Coos Bay), or Rink Creek (Coquille). A farm near Dora on the East Fork Coquille River produces bulbs and cut flowers.

Census data illustrates that there has been an increase in these "types" of agricultural enterprises. In the past year, the Planning Department has seen a surprising increase in requests related towards intensive and diversified types of agriculture within the County. Two requests related to black walnut orchards, two requests for hydrophonic greenhouse operations, three requests for llama raising operations, two requests for raising Romney sheep for growing fine spinning wool in the area, one request for a commercial herb greenhouse, as well as several requests related to Christmas tree farms. It appears that due to the economic constraints on the lumber and fishing industry as well as outside interest of newcomers to settle in the area, a demand for land to pursue these diversified uses is growing. The requirements of acreage for these uses are generally ranging from ten to twenty acres in size.

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³⁸ Art Poole, OSU Extension Agent, personal communication, March 1980 and April, 1983.

Other forms of intensive agriculture which have small land requirements are chicken and egg production, hog raising and the like. Currently there is an egg farm on Catching Creek near Myrtle Point (Da-Mar Farms) which supplies a local grocery chain.

3.2.4 Farm Forestry

There are over 200,000 acres of non-industrial private woodlands (OSU Extension Service) which add greatly to the local agricultural economy. The local timber industry provides ready markets for timber products in the highly productive hill lands of Coos County, and make farm forests a natural source of additional farm income. Frequently, in years of depressed farm prices, wood products may form a farmer's largest single source of income. Farm woodlots yield a diversity of raw materials from lumber, poles, veneer, pulp and particleboard, shingles and shakes, Christmas trees, firewood and arrows, furniture and ornamental work.

3.2.5 Processing and Marketing Systems

Coos County agricultural production also supports a variety of processes and marketing facilities, which add value to the raw products. Some have already been mentioned above. There is a cheese factory in Bandon and an ice cream plant in Myrtle Point. There are at least four (4) small slaughter houses in the County (Bandon, Coquille, Arago and near Coos Bay). There is a livestock market near Bandon which serves the entire southwest coast. Ocean Spray Inc. has its cranberry warehouse and processing facility to the south of Bandon. In addition, there are retail markets which handle a small but growing volume of local fresh vegetable production. According to the OSU Extension Service, about 10 firms supply agricultural services to farmers in Coos County. They received more than \$800,000 for these services and have payrolls of nearly \$200,000.

3.2.6 Overall Contribution to Local Economy

Agricultural production and food processing provide approximately 1,400 jobs in Coos County (OSU Extension Service). Additional income over and beyond farm receipts is generated by farmers in Coos County through the "multiplier effect". The following excerpt from <u>Agriculture: Its Importance to Oregon's Economy</u>, Special Report 553, August 1979, OSU Extension Service, expands on the importance of this phenomenon towards the economic sector:

"As farmers and ranchers go about their business, their purchases and sales generate economic activity for other businesses and individuals. The buying of inputs such as fertilizer, machinery, fuel, pesticides, etc.; the payment of household expenses and taxes; all these dollars go into the hands of others and are again used in subsequent purchases resulting in a multiplier effect. Based on a number of studies by the Department of Agricultural and Resource Economics at Oregon State University, it has been demonstrated that this income multiplier for agriculture in the state is about 3. Therefore, the economic impact on Oregon's economy can be estimated to be about \$3 billion (three times the original one billion dollars in farm and ranch sales)."

For 1983, the multiplier effect in Coos County amounted to more than \$75 million which helps support county businesses and schools, and numerous jobs in other sectors of the local economy. 39

³⁹ Lynn Cannon, statement to The World, December, 1983.

3.2.7 Possible Future Trends in Farm Practices

Emerging trends in farm practices are expected to continue into the future. Dairy operations are expected to become more efficient and highly specialized. Beef and sheep raising will continue to become more common the more productive bottomlands. Trends in hill farming will probably be varied. Some of the marginal operations will continue to be converted to forest lands, either by natural succession due to abandonment of grazing or by active management. Sale to major forest companies is likely to continue. At the same time, productivity will increase on the better managed farm due to establishment of improved pasture. Increased irrigation as well as improved control of predators and tansy ragwort could further increase (productivity on well-managed ranches. Cranberry production is likely to increase as the local and national markets expand. The best prospects for increased diversification of the agricultural economy though, are in horticulture and specialty crops and other types of intensive agriculture. The coastal climate is well suited to the production of artichokes, which have similar climatic requirements as cranberries. The Extension Service has test grown the crop in the area, and has recently contacted a grower who is ready to start growing them on an experimental basis together with begonias. Other berry crops such as blueberries could also be more widely grown. The key to the commercial success of new ventures is the establishment of a local growers' association to establish local and statewide markets. Small farmers' produce markets exist in the area which at present mostly sell produce from the Roseburg area. Such outlets could also encourage the establishment of truck farming in this area. The climate is well suited to the production of several vegetable crops. With increasing transportation costs, local products may become competitive in cost and quality with those brought in from California or the Willamette Valley.

4. <u>Summary of the Typical Problems Associated with Farm Practices</u>

4.1 Predators

Coyotes are a serious problem for livestock raising, particularly for sheep, although they will also kill calves. In some areas in the past, losses have been severe, and have been a major impediment to the expense of sheep raising in the County. However, control measures have met more success in the last few years, and sheep numbers are currently increasing. Fencing has been somewhat effective, and the County also supports a trapping program. If sheep raising is to continue to expand, coyotes are a major problem, and must be controlled effectively. Domestic dogs which have run wild often cause the same problem.

The proximity of residential areas may often lead to attacks on livestock by dogs, but more often it is wild dogs which have wandered far from their origin which cause the most persistent problems.

4.2 <u>Wildlife Competition</u>

Deer and elk will sometimes compete with sheep and cattle for the same limited forage resources in the hill areas. There is little that can be done on open range lands to prevent this from happening, however, in certain seasons large herds of elk will graze on improved pastures, often breaking down fences. Where fencing has proved unable to keep out elk, the Department of Fish and Wildlife has issued out-of-season limited kill permits to landowners.

4.3 <u>Toxic Weeds</u>

Tansy ragwort is strongly toxic to cattle and horses and has been responsible for death or severe debilitation. Sheep can tolerate tansy in their diet, and can be used to control the weed. However, it may come back again unless repeatedly grazed so as to weaken the plant. Biological controls are well known and gradually being developed. The cinnabar moth caterpillar feeds on the plant in the summer, and has been moderately successful in controlling it. It is thought that if the moth is introduced in conjunction with the tansy flea beetle, better control can be effected. The beetle and its larvae continue to feed on the plant during the fall, winter, and spring, and can weaken it to the point that it dies. The eradication of tansy is a high priority of livestock raising is to thrive.

4.4 Winter Flooding and Summer Water Shortages

Agricultural production is also constrained by seasonal water problems. Winter rains bring flooding and ponding [See also Natural Hazards Section] to the valley lowlands. Diking, tidegates and drainage ditches have been in use since the early days of agriculture to reduce flooding problems. Drainage districts have formed in the Coquille Valley to maintain and operate ditches, pumps and other structures. In this way, substantial areas which were originally tidal marsh or fresh water marsh or swamp have been converted to productive pasture. While in a few places, dikes and tidegates have been abandoned and former pasture has reverted to marsh or swamp, most diked pasture is still in agricultural use. Some low areas tend to remain wet later in the year than other flooded bottom lands, due to ponding. These areas experience a high water table for most of the year and this limits vegetation to certain water-tolerant species (canary grass and rushes). It may be in the interests of farmers to improve drainage in these areas and raise more productive forage. However, recent changes in Federal policy regarding wetlands may make this very-difficult in future.

The .U.S. Fish and Wildlife Service classified these low wet areas as 'wet meadows' and as such includes them in its (national) wetlands inventory. [See Comprehensive Plan wetlands map, where some are specifically identified as "farmed wetlands," where there has apparently been some mechanical alteration

of the soil in the past, while many other such areas are simply classified as wetlands'] Executive Order 11990 (Protection Wetlands) requires all Federal agencies protect all such areas where federal funding or other actions are involved. In the past, local farmers have received funding through the cost-sharing program administered by the county committee of the Agricultural Stabilization and Conservation Service (a branch of U.S. Department of Agriculture), to construct or maintain flood control and drainage measures. Recent changes in policy mean that no more Federal funding will be available for such work where it might drain an identified wetland area, even if it is simply a wet depression within a pasture. Farmers may also be unable to obtain permits if they intend to pay the entire cost. It is possible that under this new federal policy, as existing dikes and tidegates deteriorate, that formerly productive agricultural land will slowly revert to fresh or brackish marsh or swamp. This would especially affect the productive bottomlands of the Coquille Valley, which would eventually have an impact on the agricultural economy.

Summer water shortages can be especially critical to high volume water users like cranberries. Even regular irrigation can be curtailed during extreme low flows, especially along some of the smaller inland streams.

4.5 <u>Economic Problems</u>

It has been shown in discussion of agricultural practices that the commercial agricultural enterprise in Coos County periodically faces serious economic problems. However, these problems are common to other coastal areas with similar agricultural practices, and to a lesser extent other agricultural areas of Oregon. The most basic structural problem is that while costs rise year by year due to inflation, farm prices fluctuate with forces of supply and demand. Some farmers feel the need to sell standing timber, often well before its higher value at maturity, in order to raise operating capital. The other alternative is to float a loan from a bank or production credit fund. There are often problems in securing the loan. Usually land owners put up their land value as collateral and in this case it's to their advantage if the land is valued (for purposes of the loan) some use more intense farm use, even though they intend to continue I farming it. This provides, unfortunately, an incentive to apply for changes to rural residential or some similar use.

The economic outlook during 1983 and projected outlook for 1984 for the County according to OSU Extension Agents Arthur Poole and Lynn Cannon are as follows:

"Dairy production, the top of great concern nationally, remained relatively unchanged from 1982 in Coos County. The outlook for 1984, is not optimistic due to national legislation which is designed to reduce milk production. The result could be less income to dairy farms, which represent 49 percent of farm income here.

Farm receipts for beef cattle declined from \$5,634,000 in 1982 to \$4,564,000 in 1983. Income to cattle growers has dropped more than 25 percent since 1979.

Wool and lamb prices decreased for the second year but increased numbers of sheep kept the total income figure for the county about the same as 1982.

The 1983 cranberry yield was below average but a 12 percent increase in the acreage used to grow cranberries is credited with hiking the total income from the product.

Nursery, greenhouse and floral products sales for 1983 are an estimated \$830,000. The recession was responsible for several failures in the nursery business but these losses were offset by successful new entries and by a slight upturn in the economy, which aided the sales of tree seedlings, ornamentals, and garden plants.

Increased housing starts, especially in the West, were partly responsible for farm woodlot timber. But, prices for wood lot timber were generally not encouraging." ⁴⁰

The economic outlook tends to dictate that valued agricultural commodities (i.e., dairy, livestock) are decreasing in their desirability for increased investments. It appears that a boost in the agricultural cash sales within the county in the future can be better anticipated by cranberry production, intensive agricultural production such as greenhouses and nurseries and other special agricultural operations requiring smaller acreage than cattle production.

Another common problem related to economics is that some landowners hold far more land than they are able to manage effectively. This may be because of taxes or because of loan payments on equipment or a variety of other reasons. Many of these large holdings have been old homesteads or ranches that were assembled many years ago when land and operating costs were very low. A large ranch which was feasible to operate in the 1940's may be too large now to manage effectively and at the same time realize a reasonable economic return on investment. The result is often that undermanaged lands have reverted to brush and timber. While much hill land is truly marginal for grazing, and might be better managed as timber land, some of this land might be far more productive for cattle and sheep if it could be effectively managed. However, the superficial impression is that all such land is marginal for farming.

Coupling this problem is the age factor of farmers within the county. It can be anticipated that <u>many acres</u> within a farm holding are not managed to their fullest potential because the owner lacks the necessity factor of requiring an income off of these acres to satisfy loan payments. Many farms are debt free and are currently managed by older farmers who have already received a sizeable income from the farm operation in previous years.

4.6 Inheritance and Related Problems

The economic problems discussed above are closely related to inheritance problems. Federal and state taxes on a farm may be so great that none of the heirs are able to afford to take it over and operate it as a unit. This generally results in the breakup of family farms. Effective estate planning is the only answer to this dilemma, and there are a number of means to pass on the land as an operating unit to an heir or heirs while minimizing taxes. A problem may arise, however, when no single heir is willing or able to take on the whole farm, and it has to be divided between two or more family members. A related problem is one of ensuring that young people continue to enter farming to maintain the health and the vigor of the local economy. As noted earlier, dairying in particular it is a very demanding occupation and is difficult to attract young farmers into it unless they have the prerequisite experience already. With generational changes, there are likely to be structural changes in the local farm economy. Young people who have grown up on farms and have experienced times of economic hardship may be less inclined to set up their own farms than people who enter from other areas of experience. This new breed of farmer is likely to have rather different management objectives and land requirements from those of the previous generation.

⁴⁰ Lynn Cannon, Arthur Poole, OSE Extension Agents, The World Publication, December, 1983.
Volume I, Part 2

5. Rationale for Proposed Minimum Lot Sizes and Performance Standards for Farm Use

5.1 Proposed Minimum Lot Sizes

The Planning Commission proposes an EFU-10 zone for areas surrounding Bandon, specifically for the purpose of present and future cranberry production. Other lands zoned EFU will be subject to performance standards for land divisions and/or uses. Parcels may be created based on performance criteria if an agricultural use can be established to be feasible on the proposed acreage, as well as appropriate for the continuation of the existing or potential commercial agricultural enterprise of the area. This provision will be regulated through a conditional use permit to ensure that the proposal is made in good faith, and complies with the intent of the statutes and goals.

5.2 <u>Purpose of the Minimum Lot Sizes/Performance Standards</u>

The 10-acre minimum lot size is intended primarily for the present and potential future production of cranberry culture. This zone designation has been limited to the following townships located in the southwestern portion of the county where soil types are endemic to the commercial production of the berries:

T.27, R.14 T.28, R.14 T.29, R.14 T.30, R.14 T.28, R.15 T.29, R.15 T.30, R.15

The EFU zone is to be applied to all other agricultural lands in the County. This includes the fertile bottom lands, upland areas, and areas of the County where the predominant use is-small mixed farms run on a part-time basis where lot sizes are less than 20 acres. Such "small farm" areas are often close to urban or residential areas and are typically located in some of the small narrow valley bottoms.

5.3 Rationale for Proposed EFU Performance Standards

As indicated by the U.S. Census data cited in paragraph 2.3 above, the average agricultural lot size is decreasing. This is an indication of the growing popularity of small farms, especially for those entering farming on a part-time basis, as well as the increased efficiency of management on smaller acreages. It is expected that the small capital outlay and debt burden associated with purchasing and operating a small farm may enable the farmer to invest more capital in active land management. Thus, it is possible to realize greater per acre productivity from a small farm, when intensively managed, than from a large farm.

It has been shown in paragraph 4.5 above, that large ranches have often fallen into neglect because of a shortage of capital to invest in more active management as well as the lack of incentive to do so. In such circumstances, provided the land is suitable, greater productivity <u>may</u> be realized if such large units are divided into smaller parcels. <u>Performance standards would establish a reasonable minimum size per parcel that would be suitable for farm management and contribute a significant amount of product to the local agricultural economy.</u>

Future land use planning objectives are to enhance the continuation of the existing commercial agricultural enterprise in the area. It is felt that the EFU zone with Performance Criteria Standards for

land divisions and/or uses would be effective in accommodating new entries into the County's agricultural industries as well as provide insurance against breaking up these lands for residential speculation. Specifically, this zone would be sufficient to initiate a small dairy, beef or sheep operation with an outside income. The trend has been established earlier in the discussion that the majority of farms are additionally supported by other non-farm incomes. The no minimum lot size EFU zone would make reasonable, the ability of a young farmer to get started with a farm. As capital increases, the farm could be gradually increased by reasonable increments until the operation reaches the desired acreage of the farmer. This "desired" acreage appears to be much less than the existing farm holdings due to definite trends towards increased productivity and efficient utilization of smaller acreages in order to obtain higher profit margins. It is evident, that the future trend must be orientated towards farming on smaller acreages. It simply is not feasible, now or in the future, to buy large land holdings and let lay. Several acres of "semimanaged" farmlands as the case appears to be of the past. As farm holdings revert from loose management objectives of the past to the present and future management objectives where monetary constraints necessitate increased management intensity economics will rule their survival. It is felt that establishing the EFU zone with no set minimum lot size would be very effective in enhancing and continuing these commercial agricultural entities in view of the current and foreseeable economic adversities.

Earlier, discussion pointed out that there has been a trend towards increased participation in various "other" commercial agricultural businesses. While these entities currently are a small percentage of the total contribution of agricultural cash sales, it is felt that in establishing the minimum lot size, there needs to be consideration taken towards making provisions which will accommodate these farm uses. The EFU zone with performance standards would be able to accommodate these uses as well as protect the integrity of the resource.

While it is readily apparent that the existing commercial agricultural economy would not be best served by dividing all agricultural land into small parcels, it is the contention that much of it would remain undivided. Successfully managed farms will remain intact unless inheritance problems occur. Much of the best farmland lies in floodplain areas, and this tends to act as a natural deterrent to its division and sale for smaller farms due to problems of finding suitable-locations for farm dwellings. However, where a land-owner wishes to divide a large farm into two or more small farms, whether due to inheritance problems or due to difficulty of effective management as a larger unit, the opportunity to do so should exist. Based on performance standards, this would be able to occur if justified through the review process.

Table 6.

AGRICULTURAL PRODUCTION IN COOS COUNTY, 1974-1983

Estimated Cash Receipts (in Thousands Dollar Units) COMMODITY 1974 1975 1976 1977 1978 1979 1981 1983 LIVESTOCK **Dairy Products** 7,600 7,785 7,757 8,610 8,610 10,450 11,583 12,736 Cattle/Calves 3,306 3,234 3,212 2,912 2,912 5,555 4,873 4,564 Poultry & Eggs 293 263 200 497 Other Livestock 392 204 505 461 464 467 (hogs, furs, bees, rabbits, etc.) All Livestock 11,811 12,061 11,950 12,780 12,780 17,582 18,143 18,807 **Products** CROPS 1,979 3,392 3,249 Cranberries 1,185 927 1,100 1,000 1,346 Other fruit/truck 93 111 108 99 99 54 53 256 crops Hay 122 175 154 153 153 148 99 110 300 300 Nursery/green-300 400 400 530 700 830 house products Farm/Forest 1,650 1,600 1,600 2,500 3,112 2,500 3,675 2,172 **Products** 3,350 7,548 All Crops 3,113 3,262 4,152 4,498 6,380 6,416 **TOTAL CASH** 15,161 15,174 15,212 16,932 17,278 23,968 24,559 26,055 **SALES**

Appendix A: Agricultural Task-Force Problems and Issues Identification and Policy Recommendations

The Coos County Board of Commissioners appointed an Agricultural Lands Task Force in January 1977, to develop policies and criteria to guide the formation of Agricultural Lands element of the Comprehensive Plan. These problems and issues statements, goal and policy statements are shown here in an appendix as they form a preliminary draft of an Agricultural Lands policy statement. The final draft is included in the policy section of the Plan, and covers the concerns first raised by the Agricultural Lands Task Force, inasfar as they are within the effective scope of the planning process. The citizens on the Task Force all of whom had specific knowledge or interest related to agricultural land, met from January through March. Their first task was to develop the following list of issues, and problems:

Agricultural production requires water for irrigation. Water rights will become unobtainable in the near future.

Some land cannot be drained enough to farm well. A parcel of Ag land should be of sufficient acreage to be economically feasible to farm.

The encroachment of non-farm uses into agricultural land should be deferred as long as possible. These include residential, industrial, and urbanization uses.

Transportation costs determine the economic feasibility of what crops can be raised.

Available markets are non-existent for certain crops.

Wildlife predators should be controlled.

Family farm estate problems should be addressed.

Noxious weeds should be controlled.

Floodplains have many problems such as drainage and sediment, structural damage, and erosion.

Trespassing by the public creates problems.

Potential saltwater intrusion controls such as dikes and tide- gates should be investigated.

The productive history of the land should be considered.

Limiting climate conditions affect crop potential.

Unique soil conditions affect crops such as cranberries.

Public open space and agricultural land uses are not compatible.

Soil productivity affects crop potential.

GOAL (1977)

Agricultural lands in Coos County will be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space. Such minimum lot sizes as are utilized

for any farm use zones shall be appropriate for the continuation of the existing commercial agricultural enterprise in Coos County.

POLICIES (1977)

The following initial set of policies, developed by the task force group, recommend directions of action based on existing and future situations in the practice of agriculture and State and local agricultural goals:

- (1) Coos County should encourage and promote a free enterprise system within the agricultural community.
- (2) Coos County should encourage the establishment of processing plants and additional markets.
- (3) Coos County should cooperate with land owners in the construction and installation of drainage systems when County roads' and other County property are involved.
- (4) Coos County should encourage control of noxious weeds, and instigate programs for their eradication by chemical and biological control.
- (5) Coos County" should encourage the control of wildlife predators to prevent the loss of livestock and prevent property damage.
- (6) Agricultural lands should be protected from encroachment of non-farm uses by creating a buffer zone around agricultural lands to protect the homeowner, farmer, and timber land.
- (7) The Coos County Tax Assessor's classification should be revised to more closely represent the use of the land. Incentives should be developed for agricultural lands. All farm land contiguous and within one ownership should be classed as farm use.
- (8) Timber processing, propagation, and harvesting should be considered a farm use for products grown on said farm.
- (9) Coos County should encourage and develop a water program to help insure adequate supply of water for agriculture and domestic use.
- (10) Lands in the flood plain should be included in land use designations as agricultural land.

3.2 FOREST LANDS

3.2 FOREST LANDS

1. <u>Legislative Framework</u>

1.1 Introduction

Forest lands are the resource base for Oregon's leading industry, lumber and wood products. In additiona, they provide many other benefits of economic, ecologic, and aesthetic value: water quantity and quality, minerals, grazing for livestock, fish and wildlife, recreation and scenic resources. According to the State Department of Forestry's "Forestry Program for Oregon," there are currently more than 24 million acres of commercial forest land in the State. Of these lands, more than 15 million acres are in public ownership, under the U.S. Forest Service and Bureau of Land Management. Five (5) million acres are owned by the forest industry and more than four (4) million areas are in other private-ownerships. Conservation and proper management of the State's commercial forest lands is essential.

1.2 Statewide Land Use Goal #4: Forest Lands

The State has adopted the following Goal:

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

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

Uses which may be allowed subject to standards set forth in this goal and administrative rule are: (1) uses related to and in support of forest operations; (2) uses to conserve soil, water and air quality, and to provide for fish and wildlife resources, agriculture and recreational opportunities appropriate in a forest environment; (3) locationally dependent uses; (4) forest management dwellings that are necessary for, and accessory to, forest operations; and (5) other dwellings under prescribed conditions."

COMMENTARY

1) <u>Mapping of site classes</u>. The State Land Conservation and Development Commission has clarified the requirement of the Goal on mapping of site classes. It requires mapping according to "cubic foot site class," a measure of the potential forest productivity of the land.

Where cubic foot site class mapping is not directly available, it can be derived by conversion of other readily available mapping showing other types of site classification, e.g. the State Department of Revenue system. The State Department of Forestry has provided a convenient conversion table which is shown in Table 2.

2) <u>Definition of forest lands</u>. This definition encompasses not only existing and potential commercial forest lands but also non-commercial forest land supporting forest uses other than timber production, non-

forest lands which require protection due to their fragility and forested lands in urban and agricultural areas. "Commercial forest land" is not defined in the Goal.

3) <u>Definition of forest uses</u>. This definition includes a number of potential uses, and constitutes a mandate for a "multiple-use" approach to the use of forest lands. It includes all the uses in the multiple-use concept under which public forest lands are managed by the U.S. Forest Service and Bureau of Land Management. While public land must be managed for this full range of uses, private forest land may be managed to emphasize one or other (or more) of these uses. However, other uses like dispersed recreation and water supply may occur on private lands incidentally to the primary use. Most forest uses are compatible with one another, and may occur simultaneously. However, emphasis on one use may exclude others. For instance, developed recreational uses may not always be compatible with time harvest. The Comprehensive Plan identifies special areas where significant resources exist (for example, significant wildlife habitats, or special scenic resources) where conflicts may occur with other forest uses like timber harvest. It should be noted that a residence is not defined as a forest use, whether or not it is provided in conjunction with forest management.

1.3 <u>DELETED</u>

Per Ordinance 95-05-004PL Adopted August 30, 1995.

1.4 Relationship of the Forest Lands Goal to the Forest Practices Act

The Forest Practices Act (FPA) (ORS 527.620-527.990) is implemented by the State Department of Forestry and sets minimum standards for the following forest practices:

- (a) reforestation of forest land economically suitable therefore;
- (b) road construction and maintenance operations in forest land;
- (c) harvesting of forest tree species;
- (d) application of chemicals on forest land; and
- (e) disposal of slashing on forest land.

Sets minimum standards for surface mining. These practices are regulated for the following objectives:

- (a) maintaining forest tree species;
- (b) maintaining soi, air and water resources; and
- (c) providing a habitat for wildlife and aquatic life.

These rules apply to any operations on all forest lands throughout the State, except federal lands, and provide a significant level of protection for forest uses. These standards have been recognized by EPA as "Best Management Practices" to protect water quality for forest operations (See ORS 527.620).

The relationship between the Forest Practices Act (FPA) and the goal was addressed by the 1979 Oregon Legislature in HB 3008, which; upon passage, became incorporated into the FPA as part of ORS Chapter 527.

ORS 527.722 (1) Except as provided in subsection (2) of this section, no unit of local government shall adopt any rules, regulations or ordinances regulating the conduct on forest lands of forest operations governed by the Oregon Forest Practices Act or rules promulgated thereunder.

(2) Notwithstanding subsection (1) of this section, a city may adopt rules, regulations or ordinances regulating the conduct on forest lands of forest operations within city boundaries if those rules, regulations:, or ordinances establish standards equal to or more stringent than those established by the Oregon Forest Practices Act or rules promulgated thereunder.

ORS 527.724 Any forest operations on forest lands within this state shall be conducted in full compliance with the rules and standards of the Environmental Quality Commission relating to air and water pollution control. In addition to all other remedies provided by law, any violation of those rules or standards shall be subject to all remedies and sanctions available under statute or rule to the Department of Environmental Quality or the Environmental Quality Commission.

ORS 527.726 (1) Nothing in ORS 527.722 and ORS 527.724 is intended to preclude counties from performing their planning duties pursuant to ORS 197.005 to 197.430 with respect to forested lands by:

- a) Designating in comprehensive plans forested lands to be conserved in accordance with the statewide planning goals;
- b) zoning forested lands for uses other than or complementary to commercial growing and harvesting of forest tree species in implementing a comprehensive plan; or
- c) adopting rules, regulations or ordinances regulating forest operations on those forested lands zoned for primary uses other than the commercial growing and harvesting of forest tree species in accordance with the use or purpose for which those lands have been zoned.
- (2) As used in this section, "forested lands" means those lands upon which forest tree species are growing.

Thus, the statutes effectively prohibit counties from establishing forest practices rules beyond those in the FPA. The Forest Lands Goal itself does not directly address the application of management standards affecting forestry, the implication being that this is handled by the FPA. As noted in ORS 527.736 above, however, counties adopt more stringent forest practice rules only on forested lands zoned for primary uses other than and not including commercial timber management and harvest. Thus, if forest land is zoned for another forest use, for instance a municipal watershed with timber management excluded or made a conditional use only, and if it is found that the normal practice of timber harvest would conflict with the water resource, then additional rules, regulations or ordinances regulating forest operations may be imposed to protect that resource. However, if the zone permits forest uses in general, additional regulations may not be imposed. An Attorney General's opinion [#7894, 4/28/80] makes it clear that this section of ORS 527 does not grant counties additional powers. It simply ensures that it retains the powers to zone and regulate uses granted in ORS Ch. 197. The opinion was given in answer to a question by State Senator Kulongowski, who asked whether a county might impose zoning regulations different from the FPA in a watershed.

If there is some concern over the FPA regulations, jurisdictions are required to either:

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⁴¹ 'primary use' as used here refers to any <u>use</u> permitted <u>outright</u> in that zone.

- (a) Work with the local forest practices officer of the State Department of Forestry to have the resource protected through forest operation management plans for specific areas and/or operations, or
- (b) Seek an FPA rule amendment through the Regional Forest Practices Committee.

1.5 Special Provision in Coastal Shorelands Goal (#17) Relating to Forest Practices

The Coastal Goals make specific provisions relating to the Forest Practices Act and its implementation. Most refer to estuarine shorelands. (See Estuary Elements). However, there is one requirement which also relates more generally to non-estuarine shorelands. The State Department of Forestry must:

"recognize the unique and special values provided by coastal shorelands when developing standards and policies to regulate uses of forest lands within coastal shorelands. With other state and federal agencies, the Department of Forestry shall develop forest management practices and policies which protect and maintain the special shoreland values and forest uses." (Goal 17, Implementation Requirement (1).)

This means that special forest practices regulation must be developed in coastal shorelands to protect diverse values such as recreation, scenic resources, wildlife habitats or natural areas.

Taxation Aspects of Forest Lands⁴² 1.6

The 1976 session of the State Legislature made dramatic changes in the way timber is taxed in Oregon. It has been apparent that the previous taxation system, especially the property taxation aspect, was having detrimental effects on the timber supply. It encouraged premature cutting for payment of taxes or tax relief. Constant changes in assessment were also taking their toll. The new tax system, a severance (yield) tax based on a flat percentage of the sale value, may encourage timber land owners, particularly the smaller owners, to let their trees mature. The next few years will indicate the effectiveness of this new approach.

There are several forest related taxes that the woodland owner must consider. Excluding income taxes and social security tax, they are as follows:

- 1. Western Oregon Severance Tax
- 2. Western Oregon Small Tract Optional Tax (WOSTOT)
- 3. Property Tax

4. Forest Products Harvest Tax

Estate Taxes

1.6.1 Severance Tax

This tax was recently introduced by the legislature to replace the previous "ad valorem" tax. Tax is based on the value of timber when it is harvested, rather than on the value of standing timber, and was designed to remove the disincentives to long-term management inherent in the 'ad valorem' tax.

⁴² This section is mainly derived from 'Forest Taxation Highlights,' a Coos County Cooperative Extension publication by Stephen H. Wickham.

"Timber harvested from private land in Western Oregon is subject to a severance tax. The tax rate depends on past classification of the land. Timber previously under the ad valorem tax is subject to a 6.5% severance tax. Timber that was under the Forest Fee & Yield Tax Act, commonly known as Reforestation, is subject to a 12.5% tax in 1978. That tax rate gradually decreases until it reaches 6.5% in 2002."

"Taxable value is figured by multiplying the volume of timber harvested by the stumpage values determined from tables published by the Department of Revenue. Timber owners must keep records of their harvests by species and log grades to calculate their tax. The tax is paid quarterly to the Department, which distributes the receipts to local taxing district." (from Oregon Dept. of Revenue Information Circular)

1.6.2 Western Oregon Small Tract Optional Tax (WOSTOT)

This program is open to woodland owners in Western Oregon with 10 to 2,000 acres as an alternative to the Western Oregon Severance Tax. Under this law, the land only is taxed, and the timber is exempt, whether harvested or not. When first classified, the land must have trees with an average age of less than 60 years, but trees may remain under the program until they are 90 years old.

"Land classified under this act is inspected by the Department of Revenue and is placed in one of five quality categories known as site classes. Value per acre of each of these classes is determined by the Department of Revenue and is used by County Assessors as true cash value for the land. The amount of the tax depends on site class, value and tax rate. The Department of Revenue requires owners to develop management plans; for the forests and periodically checks for compliance. In some cases, transfers to the Small Tract Optional Tax Program are possible from the Western Oregon Severance Tax, including the Designated Forest Land program." (from Oregon Department of Revenue Information circular).

1.6.3 Property Tax

Unless under the WOSTOT program, forest land is normally taxed on the basis of the "highest and best use" using normal principles of tax assessment, as modified by County zoning. However, if the land has a greater market value than forest land, then the option is available of placing it in a "designated forest" classification.

"The Department of Revenue determines the value of forest land, which is taxed annually by the counties. The value of the land is determined by base year land values and adjusted annually according to changes in the worth of young growth Douglas fir. Owners may request that their land be classified as Designated Forest Land when it is being used for forest crop production but has a higher value for uses other than forestry. Designated Forest Land is valued and taxed at its true cash value as forest land rather than at its market value. When land is disqualified from this classification, it is subject to a rollback tax." (from Oregon Department of Revenue Information Circular). The local assessment for forest fire protection is included in the property tax bill.

The purpose of "Designated Forest" is to help conserve forest resources in areas where more developed uses are encroaching and might otherwise raise the tax assessment. In this respect it resembles the 'unzoned farmland' tax which also requires an application and can also be applied irrespective of zoning.

<u>Table 1</u> summarizes the differences between taxation on the basis of forest land value and the WOSTOT program.

1.6.4 Forest Products Harvest Tax

"This is a tax paid on timber cut from any land in Oregon. The revenue supports the Forest Research Laboratory at Oregon State University, provides emergency fire fighting funds for lands protected by the State of Oregon and provides funds for the Oregon Department of Forestry to administer the Forest Practices Act on private land.

The tax is paid quarterly to the Department of Revenue. The tax does not apply to the first 25,000 board feet harvested each year. For research, the tax is 5 cents per 1,000 board feet harvested each year, and for the Forest Practices Act, the tax is 6.7 cents per 1,000 board feet. The total tax on most private land is 29 cents per 1,000 board feet." (from Oregon Department of Revenue information circular)

1.6.5 Estate Taxes

"There are state and federal taxes on the transfer of property at death usually paid by the administrator or executor of the estate. Large recent increases in land values often lead to the sale of timber and land just to pay these taxes. Such taxes increase the difficulty of proper management of a long-term crop such as timber. With proper planning both state and federal estate taxes can be minimized." [ibid.]

Tax Implications for Forest Lands

Land Taxed at Market Value as Forestland

W. Oregon Small Tract Optional Tax

CRITERIA

- a. 2 contiguous acres minimum
- a. 10 acres to 2,000 acres of land suitable for growing timber and held for primary purposes of growing and harvesting forest products
- b. 100 trees per acre of commercial timber species
- b. average timber age of less than 60 years
- c. 1000 trees per acre of Christmas trees or ornamentals upon initial planting or 500 trees per acre in wild land culture
- c. all of an owner's eligible land in western Oregon must be classified
- d. zoned for Forest Land, or otherwise upon application for "Designated Forest" classification
- d. no owner may receive this classification if an immediate family member has forest land classified under it
- e. management plan and compliance checks required

BASIS FOR VALUATION

Base market valuation for forest lands is currently in litigation but values throughout the county will vary with D.O.R. site classes and with location (i.e. higher values for more productive land near major highways) and are based on bare land.

True cash value based on site quality, as much as four times greater than the current valuation for forest land designation.

BOTH LAND AND TIMBER TAXED?

Annual property tax on forest land and a yield tax on appraised stump age at harvest. (Western Oregon Severance Tax)

Only forest land is taxed; trees are exempt whether harvested or not.

2. <u>Forest Land Inventory</u>

2.1 Forest Productivity Measures.

The 'site index' concept is used to measure the forest productivity of a particular location. 'Site index' is based on the height that a free-growing forest tree will reach within a certain time period (normally 100 years). A fully-stocked stand of trees of this species will add a certain volume of wood growth per acre per year. An alternative measurement of productivity is based on this volume and is called "cubic foot site class." There is a variety of productivity classifications based on these two measures. The classification systems used for Douglas Fir in Western Oregon are summarized in Table 2 below.

Table 2

Classification Systems for Douglas Fir (below 2500 feet in western Oregon)

Growth Measures									Sca								
Site Index: Height in Ft. at 100 years	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210
Potential Yield: cubic feet/acre/year	20	20- 49	50-80			85-119 120-164			165-224								
Classification Systems																	
Cubic Foot Site Class	7	6	5			4	4 3					2					
Site Class (Bulletin 201)				\	V		IV			III			II			I	
Dept. of Revenue Forest Land Class		FX		F	G	G FI		FF F		FD	F	С	F	В		FA	

Source: Oregon State Department of Forestry

Douglas fir is used as the basis for productivity because it is the dominant species in most areas west of the Cascades. Along the coast, however, other species like Shore pine or Sitka spruce may be dominant. While the shore pine areas are usually older stabilized sand dune areas and are of low productivity, in Sitka spruce areas the site class may be higher for this species than for Douglas fir.

The Forest Lands Goals requires that forest productivity be inventoried and mapped by 'cubic foot site class.' However, as noted earlier, the Department of Revenue Forest Land Classification System is recognized as an acceptable equivalent, and may be converted to cubic foot site class by Table 2 above.

2.2 <u>Forest Productivity Mapping</u>

Generalized forest site classes for the forest lands of Coos County have been identified on the Forest Resources map at a scale of 1/2" = 1 mile and include:

- 1. Cubic Foot Site Classes 2 and 3 (combined) with a potential yield of 120-220 cubic foot per acre per year for Douglas fir.
- 2. Cubic Foot Site Class 4 (85-119 cu. ft./acre/year)
- 3. Cubic Foot Site Class 5 (50-84 cu. ft./acre/year)
- 4. Boundary of area in which Sitka spruce and Hemlock tend to dominate as the major timber type.

The site productivity mapping is based on the Forest Land classification of the Oregon State Department of Revenue.

These classifications reflect observed growth, rates on sites that were forested in 1967 and are generalized to 40 acre map units. The boundaried area addresses the concern of the Coos County Forestry Department that in many areas where a relatively low site class is indicated for Douglas fir, a significantly higher site class exists for Sitka Spruce or Western Hemlock.⁴³

As Table 2 shows, there is not an exact correspondence between the divisions of the Department of Revenue site classes and those of cubic foot site class. For instance, the lower half of Class FE and the upper half of FF correspond with Site Class 4. Thus, some map interpolation is done in order to approximate the extent of Site Class 4 and 5, as suggested by the State Department of Forestry⁴⁴, the procedure followed was to separate Class FE and FF lands into upper or lower divisions based on whether one or more of the neighboring 40 acre units were in a higher or lower class, or the same class. For instance, if a unit of FF is bounded by one or more units of FE, then it is placed in Site Class 4. Otherwise, it is in Site Class 5. The Cape Arago to Beaver Hill area, which includes part of the Coos County Forest, is generally site class 3 or 4 land for Douglas fir. However, it is considerably more productive for Sitka spruce and Hemlock.

As the Forest Resources map indicates, much of the County is highly suitable for timber production of major commercial species. It should be noted that the flood plains, where in agricultural use, were not given site classes by the D.O.R. due to the fact that they were not under forest cover in 1967, though these soils are highly productive.

The original tree cover was mainly hardwoods, alder, maple, ash and myrtle, with some conifers. Technically, these lands could be classified as forest lands, because of the potential vegetation, but their primary value will continue to be as agricultural lands. A somewhat lower productivity is indicated on the coastal plain, where poorer soils and climate limit growth and in the Siskiyou National Forest in the southern part of the county, where elevation and rocky soils are limiting factors. However, even these sites have a potential productivity well above 20 cu. ft./acre/year, which is the standard definition of commercial forest land.

Only the sand dune areas of the coastal fringes have so little growth potential that they fall outside the definition of "commercial forest lands."

Unlike the definition of 'Agricultural Land', which has a different standard in Eastern Oregon, the definition of "commercial forest lands" is the same state-wide. However, in reality a rather different standard operates on the Oregon Coast, where the levels of forest productivity are generally very high.

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⁴³ Theodore Ellingsen, County Forester, letter, September 21, 1979.

⁴⁴ Letter from Laurie Dene, State Dept. of Forestry, June 29, 1979.

<u>Land of lower site classes</u> in Coos County (site class 4 or below) is regarded as relatively poor timber growing land. Commercial timber production is only feasible on lower site class lands where large contiguous tracts are managed (for example in the Coos County Forest or the upper elevations of the Siskiyou National Forest.) There are a few large corporate holdings on the coastal plain in these lower site class areas which may still be economically feasible to manage. <u>However, many citizens in this area have complained that most timber companies are not interested in purchasing land and in the area for commercial timber production</u>. Thus while these low site class lands are technically "commercial" forest lands, in practice they are not often managed intensively, particularly where they are in smaller private ownerships.

2.3 Forest Land Types

There are several types of forest land in Coos County, ranging from that intensively managed for timber production, to land used for both timber and grazing/agriculture, to smaller forest ownerships in areas experiencing pressure from development. The categories may generally be described in terms of their use and ownership characteristics as well as other influencing factors, such as topography and access.

Much of the commercial forest land in the County is devoted primarily to the growing and harvesting of timber and other forest products, though other forest benefits are also derived from the land (water, wildlife habitat and recreation, for instance.) Generally, the topography is quite rugged, and access provided through private logging roads. Lands in this category are the steep mountain slopes in the northern, eastern, and extreme southern portions of the County. This category includes much of' the publicly-owned land in the County (Elliott State Forest, Bureau of Land Management, Coos County Forest, Siskiyou National Forest), and much of the forest-industry owned land. Basically, this type of land is unsuited for other non-forest uses. The remoteness of these areas, however, makes them well suited to "intensive" forms of forest management such as fertilization by helicopter and slash burning.

Forest and grazing land includes land that either by use or land ownership pattern, combines forested land with grazing land. Typically, this land is owned by farmers who combine cattle and sheep raising with timber production. There are distinct differences in land ownership/use patterns between different parts of the County. In the southern part of the County, particularly in the drainage of the South Fork of the Coquille River and south of Bandon, there are hill ranches, generally of very large acreage where open grazing land is intermingled with forested land. A few operations may cover an entire major drainage basin. In other parts of the County, particularly the northern and eastern parts, farm/forest ownerships follow narrow valleys. Typically, the bottom lands are in agricultural use, while the lower slopes and benches will also often be in open grazing. However, the upper slopes are generally forested. (Such farm ownerships generally lie along valleys, with the property extending well beyond the bottom land on either side and often reaching to the top of the first ridge.) Beyond that the uplands on all sides are typically in forest industry or public ownership. Good examples of this ownership pattern may be seen in the valleys of the East Bay or Tenmile Lakes. This ownership pattern historically stemmed from the fact that the more inaccessible lands originally in small private ownership were allowed to revert to the County due to non-payment of taxes mostly during the Depression years, and were bought by the major timber companies.

Particularly on the hill ranches of the southern half of the County the land is characterized by a fluctuation in use between timber production and grazing. This includes both the practice of grazing livestock in wooded areas and conversion of timber land to grazing land after the timber is harvested. This type of use of forest land has been important to the County throughout its history.

In certain parts of the County, there are substantial acreages of forest land in smaller private ownerships (mostly under 160 acres) which are not managed in conjunction with farms. This type of land is found

primarily in coastal areas north and south of Bandon and also in the Hauser area, on predominately low site class lands (as defined in 2.2 above). There are also similar smaller ownerships in higher site forest lands further inland, particularly close to urban areas, like the Isthmus Heights, Sumner area. Most of this land is still under forest cover, but is generally not being managed intensively by modern forestry techniques. This is in part due to a low productivity (at least in the Bandon and Hauser areas), and in part due to the intrusion of developed uses, particularly rural homesites on small acreages into many of these areas. Inevitably, the pressure is great to remove any merchantable timber from these lands and convert it to rural homesites of various acreages. The bulk of citizen requests for rural residential designation (as expressed through the citizen involvement program) have been in areas like north and south of Bandon, Isthmus Heights/Sumner and Hauser. The rural housing section and Exception Statement have stated that such areas might best accommodate the public need for future rural residential growth in the County, given the commitment of nearby land to residential use, and other favorable factors, as assessed in the Suitability Rating System. The problem which remains is, how best to plan rural residential growth so that small-scale forest management remains a viable option on the remaining lands.

Finally, there are also certain corporate forest holdings in close proximity to established residential areas. Primary examples are found adjacent to the communities of Glasgow, Cooston, Barview and Millington. While acreages are substantial, there are still problems with the use of industrial forest management practices. The owners may eventually have to look at other options for these lands.

2.4 Forest Land Base

Preservation or enlargement of the amount of land available for timber production is essential to the maintenance of sufficient timber harvest levels. A decline in the amount of land available for growing trees will mean a decline in the potential harvest, unless the degree of intensive forest management practiced on the available lands is increased correspondingly. Estimates for 1973 show that there were 873,000 acres of "commercial forest land" in Coos County, while there were 847,000 acres in 1975.

"Commercial Forest Land," according to the source's definition, is land that is (a) producing or capable of producing usable wood crops (b) economically feasible to harvest new or in the future; (c) not withdrawn from timber harvest. The 1975 figure reflects a net loss of 53,000 acres of commercial forest land over a 12 year period (see Table 3 below). Some of this land went into the "unproductive forest land" category (land not capable of producing wood due to adverse site conditions) and the "productive-reserved" category (productive land removed from commercial use by statute or administrative order).

Of particular concern to land use planning is the 33,000 acre increase in the amount of non-forest land in the county. While most of this acreage may be attributed to <u>conversion</u> of tree-covered land to agricultural and grazing land, it must be assumed that some of it at least, has been <u>permanently removed</u> from the realm of resource production through development as rural homesites. The exact acreage is not known at this time. Land converted to agricultural or grazing use may, in a sense, be assumed to be only temporarily removed, as it can be reclaimed for the production of timber if economic feasibility and the landowner's desires so dictate.

Land converted to urban uses, however, cannot be reclaimed at all and may be assumed to be permanently lost. Considering the County's substantial economic dependence on the timber/forest products industry, the impact of these land losses to development may be significant. The extent of the impact depends on whether the land lost is of high or lower site class. A fair proportion of rural homesite development over

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⁴⁵ Source – Patricia M. Bassett, Timber Resources of Southwest Oregon, (USFS Resource Bulletin, PNW-72, 1977).
⁴⁶ Ibid.

the years has occurred in relatively low site class forest lands, for example north ⁴⁷ and south of Bandon and near Hauser. Forest land ownership is divided between three major types as follows 35.2% is in public ownership (U.S. Forest Service, Bureau of Land Management, Elliott State Forest and Coos County Forest); 40.5% is in forest industry ownership (major owners are Weyerhaeuser, Menasha Corporation, Georgia Pacific and International Paper); 24.3% is owned by farmers and other private individuals. ⁴⁸

The total volume of standing sawtimber was estimated at 17,346 million board feet in 1975. [ibid] Public lands contained 66.7% of this volume, forest industry lands 23.2% and private non-industrial lands, 10.1%. Thus, while private lands total almost two-thirds of the land base, they contain only one-third of sawtimber stocks. 49 Examination of air photographs shows that there is little old growth timber remaining in the western half of the County. A very low percentage of the farm-forest lands in the County contain stands of fully mature timber, older than 100 years. Remaining reserves can be clearly identified by the darker color and rougher texture as it appears on infra-red photography. The more inaccessible areas of the Siskiyou National Forest contain the highest volumes of over-mature material. The Elliott State Forest, however, contains plentiful reserves of older second growth timber of approximately 90-100 years age-class, dating from extensive fires in the last century. In addition, the major timber companies have established extensive stands of younger reproductive growth on their free farms. Unfortunately, large acreages of land in the more accessible parts of the County support "bastard growth", a mixture of hardwoods (mostly alder, maple and myrtle) and conifers (Douglas fir, Grand fir, Hemlock, and cedars). Reproduction by the more economically valuable conifers has been cut back by the aggressive regrowth of "pioneer" species (especially alder.) While this is a stage of natural plant succession, (alder prepares a fertile soil for later colonization by conifers), it would take many times as long to establish a fully stocked coniferous stand by this process as by replanting a harvested site. Generally it takes at least 25 years before fir beneath it to start to grow more rapidly. Some foresters state that the process actually takes much longer, and that often the suppressed trees fail to respond at all.

Future timber supplies will be depleted because of a past failure to re-establish fully-stocked coniferous stands.

A State Department of Forestry Study⁵⁰ of the Oregon Coast Range estimates that in 1976, 568,400 acres (or 15% of the area studied) was "underproductive", that is, land that "once supported mature conifer forests that are no longer commercially productive." This points to the magnitude of the problem. The study found that over half of this land is in the "other private" (non-industrial) category, and comprises 30.2% of the total holdings in that category.

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⁴⁷ Source: Patricia M. Bassett, Timber Resources of Southwest Oregon (U.S.F.S. Resource Bulletin, PNW-72, 1977).

⁴⁸ Ibid.

⁴⁹ These statistics are based on the "Scribner Rule" and include only Sawtimber of 11 inches and diameter and larger. If small material were included the proportion in private lands would be larger.

⁵⁰ Forestry Program for Oregon: Supplement #2. 'Underproductive Forest Lands in the Oregon Coast Range' O.S.D.F., December, 1977.

Table 3

Forest Land in Coos County, 1963 and 1975

	1963 Acres		1973 Acres		1963- 1973 Acre	1973		1973- 1975 Acre Change
					Change			Change
Total Land Area	1,031,000	100.0	1,027,000	100.0	-4,000	1,027,000	100	-
Total Forest Land	905,000	87.8	891,000	86.8	-14,000	868,000	84.5	-23,000
Commercial	900,000	87.3	873,000	85.0	-27,000	847,000	82.5	-26,000
Productive-Reserve	2,000	0.2	3,000	0.3	+1,000	8,000	0.8	+5,000
Unproductive	3,000	0.3	15,000	1.5	+12,000	13,000	1.3	-2,000
Non-Forest Land	126,000	12.2	136,000	13.2	+10,000	159,000	15.5	+23,000

Sources: Forest Statistics for Southwest Oregon; USFS Resources Bulletin PNW-8; & Timber Resource Statistics for Oregon; USFS Resource Bulletin PNW-56.

3. Forest Production

3.1 Economic Overview

Logging and the production of forest products provide the backbone of the County economy and have done so for all of the County's history. The forested slopes are a major element of Coos County's visual character, thus providing a portion of the basis for one of the County's largest employers, tourism and recreation. It is vitally important that Coos County's forest lands resources be conserved and protected.

During 1976, the manufacturing of lumber and wood products consistently provided 24-25 percent⁵¹ of the total number of jobs in Coos County.

"Coos County has, by far, the largest employment in the forest products industry of any coastal county⁵² encompassing almost fifty percent of total forest products employment on the coast. In lumber and wood products, this dominance is even greater, with Coos County having approximately 54% of all lumber and wood products employment on the coast."⁵³

It is important to note, also, that the 'tributary area' for Coos. County "mills lies well beyond the County borders, in Douglas and Curry Counties.

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⁵¹ "Labor Force Trends," Coos Bay Local Office, State of Oregon Department of Human Resources, Employment Division; May 1976 – April 1977. With staff computations.

⁵² Excludes Lane and Douglas Counties

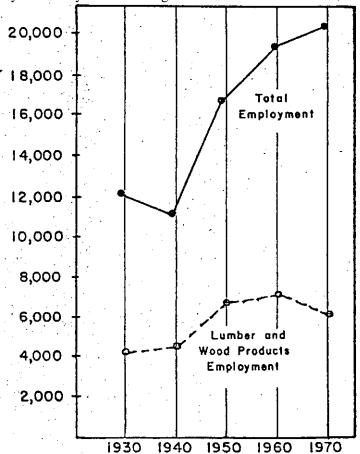
⁵³ Economic Survey and Analysis of the Oregon Coastal Zone' G.A. Kuhn, et. al, for the Oregon Coastal Conservation and Development Commission; 1974; p. E-55. "Coast" refers to the five complete coastal counties: Clatsop, Tillamook, Lincoln, Coos and Curry.

These figures, both the concentration of coastal forest products employment in Coos County and the 24-25 percent of the local labor force in the lumber and wood products industry, include only those people working in the industry itself, such as logging and mill work. It does not include "spin-off" employment related to the industry, such as the transportation of logs to the mills or lumber and chips to the docks, or the employment in areas such as personal services and retail trade that result from the spending of dollars earned in the lumber and wood products industries. If each job in the lumber and wood products industry generates 1 to 1 1/2 jobs outside of the industry, then 50-60 percent of the jobs in the County are directly tied to the status of the lumber and wood products industry, [op. cit. above]. Any threat to the health of the sector would have great repercussions on the health of the total economy.

Table 4

Total Employment and Lumber and Woods Products Employment, Coos County 1930-1970

Source: Economic Survey and Analysis of the Oregon Coastal Zone. G.A. Kuhn, e.t. al OCCDC (1974)



Overall employment in the forest products industry has been decreasing over the last two decades. (See Table 4). One major reason for this has been automation and, generally, increased output per worker in the sawmills and plywood and veneer mills. On the average, the number of employees needed to produce a million board feet of lumber or plywood has decreased by 50 percent since 1950. However, there has only been a 10% net reduction in employment, due to the fact that total production has increased. Trends in automation are not leveling off and further declines in employment in the mill can be expected

regardless of the situation with respect to the supply or demand for wood products. Employment in logging itself is declining, but at a much slower rate than the declines in mill employment, due mainly to a lesser impact from automation. At the same time there is a possibility of increased employment from processing of raw materials, which are currently exported. Woodchips can be utilized locally to manufacture pulp. Hardwoods can be chipped and pressed into waferboard and other similar new products.⁵⁴

Overall County employment in the lumber and wood products industry is not solely dependent on locally influenced factor such as the supply of timber. Since most of the lumber, plywood, and other wood products are marketed in areas outs of this region, the demand for wood products, and thus employment in this sector, is affected by factors not under local control. According to one study, 91 percent of the employment in the lumber and wood products industry is dependent on non-local demand for the products. This dependency the Coos Bay area (Coos and Curry Counties) on non-local demand is greater than the dependency of any other region in the Douglas fir areas of Oregon and Washington, except the Roseburg and Longview, Washington regions.⁵⁵

3.2 **Trends in Timber Supply**

The supply of raw timber available for the mills is expected to decrease in the future. According to 'Timber for Oregon's Tomorrow,' (The Beuter Report) timber harvest in the South Coast timbershed (Coos and Curry Counties) can be maintained at the present level until about 1995, under current policies and actions. The report foresees a decline in harvests after 1995, potentially as great as 35 percent, primarily due to declines in harvest on forest industry lands. ⁵⁶ Moves to intensify timber management by all classes of forest land owners (National Forests, Bureau of Land Management, State and other public. forest industry, and non-industrial private owners), greater harvests from the non-industrial private owner class, and moves toward a general sustained yield harvesting policy and philosophy will be essential to any attempt to increase the amount of raw timber produced in Coos County after 1995. Due to the nature of the "crop" however, intensive management must begin now to ensure a sufficient harvest. It should be noted that the Beuter Report did not take genetic improvements to reforestation stock, and fertilization techniques into account when assessing the effect of current forest management techniques. Both are established practices which may be more widely used in the future.

In addition, the report did not inventory standing timber under 8" diameter, some of which is now being utilized due to changing milling technology. Thus, the decline in harvest may not be as severe as predicted.

4. Forest Management and Practices

4.1 Intensive Forest Management Techniques

Some degree of forest management, along with conservation of forest land, is necessary to ensure a continued harvest at levels equal to or greater than the present harvest. "Forest management" is a term used to denote a number of methods or tools aimed at increasing the useable timber harvest from a given piece of land.

⁵⁴ A finding of the Economic Diversification Task Force of the Coos Bay Estuary Inter-Agency Task Force.

⁵⁵ Importance of Timber-Based Employment to the Douglas Fir Region, 1959 to 1971; W.R. Maki and D.L.

Schweitzer; USDA Forest Research Note PNW 196; 1973.

56 <u>Timber for Oregon's Tomorrow</u>; J.H. Beuter, K.N. Johnson, H.L. Scheurman; Oregon State University, Forest Research Laboratory, Research Bulletin 19, 1976; p. 11-13 and 37-39.

"Forest management" refers to any or all of the following practices: (1) forest fire control; (2) insect or disease control; (3) vegetation control; (4) reforestation; (5) precommercial and commercial thinning; (6) fertilization; (7) genetic improvement of timber species; and (8) other measures, such as assistance to forest land-owners, forest research, etc."

Intensive forest management of commercial timberland assumes a management regime of:

- A. Harvesting when stands are mature by financial formula commonly used in the area. In most cases in this area this is no greater than stand age 60, though other factors are also used to determine maturity.
- B. Investing in site preparation (if needed) and trees and planting as rapidly as possible following harvest, to secure an adequate stocking of the best commercial species as commonly used in the area for that forest growth site.
- C. C. Investing in pre-commercial thinning if necessary to maintain or enhance growth of selected crop trees for future commercial thinning and eventual clearcut.
- D. D. Investing in herbicide spray or hand clearing for site preparation or to secure release from competing overtopping vegetation if needed, keeping the conifers free to grow.
- E. E. Being prepared to do commercial thinning where, early harvest can be secured to maintain or enhance growth of remaining crop trees. More than one commercial thinning at 3 to 8 year intervals may have financial advantages;
- F. F. Beginning the cycle again with clearcut harvest followed by site preparation and planting.

Increases in the level of forest management practices are necessary for all classes of forest land owners: public agencies, forestry industry and non-industrial private owners. There may be pressure from neighbors and local residents not to do many of the things necessary in forest management to obtain the desired standard where commercial lands abut farms or rural residences.

Intensive management using the above practices produces effects which may be objectionable to nearby residents. The use of fire in reducing slash hazard or site preparation will temporarily impact air quality. Management may involve aerial or ground application or herbicides for site preparation or release from competing vegetation. Harvesting operations will cause perceived reduction of aesthetic values for a few years at least. This might be objectionable to local residents for a certain period of time. Heavy truck hauling may cause temporary dust problems or potential extra hazard to school children and passenger car traffic where it passes through residential areas.

Forest management may involve operations close to 'class one streams' which includes streams used for domestic water supply,⁵⁷ the protection of which may reduce the actual operable acreage of the tract in question. For reasons outlined above, there may -be pressure from adjacent property owners not to do many of the things necessary to forest management to desired standards, where commercial forest lands abut farms or rural residences.

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⁵⁷ Any stream used for <u>domestic</u> water supply is by definition considered a "class one stream." However, streams used for stock watering or irrigation are not. The definition also includes streams (whether perennial or intermittent) which are important for angling or breeding and migration of fish populations. [Ron Fox, State Department of Forestry, personal communication, May, 1980.]

Some forest industry companies and public timber agencies are experimenting with genetic improvement, specifically development of a larger and faster growing Douglas fir tree.

4.2 <u>Problems for Encouraging Reforestation</u>

The "farmer and other private" owner class controls 1/3 of the commercial forest land in the County. With some notable exceptions, this group practices a minimum of forest management. Their activities are controlled primarily by the regulations of the Oregon Forest Practices Act and individual economic concerns, especially taxes. Both the Forest Practices Act and Oregon timber tax structure are designed to encourage reforestation. The Forest Practices Act does this through requirements for reforestation within five years unless the owners states his intent to convert the land to non-forest use. The long term impact of these reforestation requirements on the continued or increased timber yield from the "farmer and other private" owner class is as yet unknown. Limited financial and staff resources are currently hindering full enforcement of the Forest Practices Act, especially with regard to small private landowners. ⁵⁸

The problems of encouraging reforestation must still be addressed. The long term no-return commitment of land to timber growth is leading many to seek more immediate returns on that land, such as by conversion to agriculture and grazing use, after the timber has been harvested. Incentives have been made available to encourage the small private owners to keep that land in tree production.

There are three types of assistance currently available to small, private woodland owners for reforestation and stand improvement: (i) Federal cost-sharing programs ⁵⁹ administered by the State Department of Forestry Service Foresters with funding through the local Agricultural Stabilization and Conservation Service (ASCS); (ii) Tree farm programs of certain major forest companies; (iii) Assistance provided by forestry consultants. State Department of Forestry Service Foresters also provide other aid to small woodland owners. They may help them to form cooperatives so as to be able to purchase services at a lower rate (helicopter operation, tree planting, purchase of nursery stock and pre-commercial thinning). The Department will also provide equipment and labor where these are not available from the private sector. Service foresters also help landowners design management plans for their forests.

While it is beyond the scope of the State Department of Revenue (administrator of timber land taxation), the State Department of Forestry (administrator of the Forest Practices Act), and local planning agencies to require forest land owners to grow trees, it should, be noted that conversion of land to other uses will, in the long run, mean a decline in timber harvest. Such land will be used for the production of trees only when it is to the economic advantage of the land owner.

4.3 <u>Problems for the Application of Intensive Forest Management Techniques on Small Tracts and Adjoining Lands</u>

⁶⁰The problems discussed below apply especially to small forest-land tracts in the range of 10-40 acres. However, they also apply to larger farm-forest ownerships or even much larger corporate or agency lands where they abut farms or (especially) rural residential areas.

Most forest land tracts of under 10 acres are bought with the primary objective of securing a rural homesite. These areas are therefore classified in the Plan as "Rural Residential." Many owners in the 10-40 acre range also have the objective of rural living. However, few can justify the expense of a tract of

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⁵⁸ State Dept. of Forestry, Gerry Phillips, personal communication, May, 1980.

⁵⁹ Forestry Incentives Program (FIP) and Agricultural Conservation Program (ACP), See Table 5.

⁶⁰ Source: State Dept. of Forestry discussion paper (1980) by Dewey Jurkiewicz and Julian 'Slim' Miller is source of information in this section.

this size without also intending to manage the land at some level for resource production, either purely for forest products or a mixture of forestry and grazing. Due to the varied objectives of owners of these small forest tracts, there has been in the past a tendency to practice a less intensive level of forest management than on the corporate agency and larger farm holdings.

Rural living involves establishment and protection of a domestic water supply, access of utilities, right-of-way access, privacy and aesthetics. Most residences involve at least one acre of homesite development. Water supply access can occupy an additional area, and in many instances may affect portions of surrounding ownerships. These influences may have an inhibiting or dampening effect on the practice of intensive forest management on their owner and adjacent forest lands.

Some of these inhibiting effects on intensive forest management can be:

- (a) Restrictions on logging where it might destroy or damage domestic water supplies. Water rights for domestic use can be established in drainages originating on other ownerships, or the drainage providing water may originate on another ownership, even though the catch basin is on the owner's land.
- (b) The influence of the water supply and homesite situation extends to eliminating or reducing the possible use of herbicides as a management tool within the drainage area or a defined distance from the residence. Oregon State Field Guide to Oregon Forest Practices Rules, (1/10/80) Rule 629-24-203 'Protection of Waterways, Areas of Open Water, and Dwellings When Spraying,' states; "Protect waterways and areas of open water such as swamps or impoundments from contamination when spraying by aircraft by leaving a buffer strip of at least one swath width untreated on each side of every Class I stream or area of open water.
- (c) Access for proper forest management, harvest or project work may be a problem. Where portions of the ownership are steep, the only practical way to harvest the timber may be highlead logging. Highlead logging requires access to proper location for setting landings which are dictated by the terrain. Access to these landings may require negotiation of rights-of-way across steep terrain through one or more adjacent owners. These adjacent owners may or may not be agreeable to temporary or permanent rights-of-way. Their timber may be at a different stage of growth, or newly planted reproduction which would not fit in with a combined harvest to make a more economic harvest setting boundary.

These objections may hinder an owner from securing convenient access to efficiently manage his own lands. Access roads or roads within 10-40 acre tracts may have been built in the- past to much lower standards as to depth of gravel, width, and curve radius, than are public roads or logging roads. Use of these roads, which may not be dedicated public roads, may involve undue damage to thin rock surfaces and ditches.

Use of tract roads for commercial hauling will involve negotiating rights-of-way for commercial log hauling if not already a public road.

(d) For owners of small forest tracts (10-40 ac.), the objective of preserving aesthetic values may tend to deter the application of intensive forest management practices. (This is much more the case with tracts of less than 10 acres). To some owners, the growth of hardwoods may be as pleasing to the eye as well stocked conifer stands, or even more so in the case of certain species like madrone or myrtle.

An owner motivated toward aesthetics may be very reluctant to log by highlead clearcut due to the visual impacts, which persist until new growth has covered the residue from timber harvesting. However, logging by highlead may be the only practical method to remove merchantable volume from steep slopes.

(e) Many of the forest lands which are sold as small: tracts have had a history of repeated selective logging or clearcutting with no subsequent management, which has greatly reduced the value of the remaining stands. These practices tend to reduce the species composition of the stand toward less valuable species of conifer, and promote the predominance of hardwoods, through the removal of overstory conifers which allows smaller understory hardwood trees to increase growth. Even after they are logged, hardwoods can regrow and dominate a site to the exclusion of conifers if continuous efforts are not made to control their regrowth.

Small tracts are often purchased in a poor, unmanaged condition as to potential for forest productivity. With generally low prospects for income from commercial harvest from the existing cover, an owner may be faced with a need to invest money for a considerable period, at interest, before realizing any substantial net income from commercial conifer harvest. This period may be as much as 40 years in the case of site preparation and planting to establish reasonable conifer stocking.

(f) Many types of forest management practice will involve economies of scale. Small tracts mean very infrequent operation which produces rather small income and little incentive for an owner to invest in his own management or harvesting equipment. Letting site preparation operations on a contract basis will attract only high bids because of the cost of moving heavy equipment for a comparatively small project. Site preparation either by tractor scarification, herbicide application, or burning, will have a gradually decreasing cost per acre as the size of the project increases, before lowering costs per acre begin to level off.

In spite of the problems detailed above, it is certainly <u>feasible</u> for intensive forest management to be practiced on tracts of forestland even as small as five acres. However, a set of conditions must exist which is not always found on these smaller tracts.

These conditions are:

- 1. Strong owner motivation toward forest management practices to produce income often involving part-time manual labor and careful financial and resource planning.
- 2. Terrain which lends itself to easier and cheaper operations. The best terrain would be gentle enough to allow tractor logging and/or tractor site preparation without damage to the environment (no slopes greater than 35%).
- 3. A good level of stocking with conifer species, or merchantable hardwood species, so that income could be secured from the first operations. The income from operations should be large enough that site preparation and replanting could be financed and still leave some net income as an incentive to conduct operations.

When one compares the ideal expressed above with the more usual circumstances discussed previously, it becomes evident that few small tracts under 10 acres will be operated under intensive forest management. However, tracts of 10-40 acres will benefit from the increased scale of operation to the point where highlead logging would become more feasible and other economies of scale would begin to be realized.

It is also beneficial to form local owners' cooperatives (either under State Forestry or private industry sponsorship), whereby a group of owners combine together to benefit from economies of scale. This has been successful in the past in the southern states.⁶¹ Federal cost share programs can also improve management of small tracts significantly.

Finally, there are substantial areas on the coastal plain, especially in the Bandon area, which possess reasonably good levels of stocking with coniferous species and have terrain level enough to permit tractor logging. Such areas are of relatively low site class, and are not attractive to the major companies, but may be ideal for small individual woodlots.

In short, investment costs and owner objectives do not usually combine for a favorable future for good forest management of small woodlot tracts. However, given the right set of conditions as discussed above, and appropriate motivation and management by the owner, tracts of 10-40 acres can be as productive as any forest land of the same site class. A combination of planning and zoning measures, tax incentives and corporate agency programs (Dept. of Forestry, Cooperative Extension and forest industry) could give a boost to good forest practices on small woodlots and supplement the incomes of numerous households in the County.

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⁶¹ Timm Slater (Weyerhaeuser Corp.), personal communication, May, 1980.

Table 5

Applicant Eligibility

FIP

Forestry Incentives Program

- Any individual, group, association, or corporate landowner may be eligible provided they are not regularly engaged in the business of manufacturing forest products or providing services of any type.
- A person must own a tract of no more than 1000 acres of eligible forest land. Exceptions to this maximum are possible.
- Land must be suitable for forestation (if presently not in trees), for reforestation, or for improved forest management.
- Land must be capable of producing marketable timber crops and meet minimum productivity standards for this program in his state.
- 5. Applicant must have had no commercial harvest on lands for which a FIP costsharing application has been made within the past five years. Salvage cutting, cuttings to regenerate unproductive stands, and cuttings to convert unproductive species are not considered commercial harvest, so are exempted from this rule.
- 6. Program is available in designated counties only. [Includes Coos County]

ACP Agricultural Conservation Program

- Any individual, group, association or corporate landowner may be eligible.
- 2. There are no ownership size restrictions.
- Land must be suitable for forestation (if presently not in trees), for reforestation, or for improved forest management.
- Land must be capable of growing trees as a conservation measure.
- Local Agricultural Stabilization and Conservation County Committee establishes the policies governing eligibility.

Program is available in all counties.

Source: "Forestry Cost-Share Assistance" U.S.D.A. pamphlet

Eligible Practices

FIP

Forestry Incentives Program

Planting Trees

This practice is intended to increase the production of timber and improve the environment. Site preparation is an authorized part of the practice if certified necessary by the forester. Minimum practice acreage is 10 acres.

Improving a Stand of Forest Trees

This practice is aimed at increasing growth of trees on sites suitable for production of saw timber and veneer logs. Precommercial thinning and releasing desirable seedlings and young trees are acceptable measures, as well as site preparation for natural vegetation.

Limitations

The maximum cost-shares that a person can earn annually for forestry practices under FIP is \$10,000. Up to 75% of the costs can be provided.

ACP Agricultural Conservation Program

Planting Trees

May be used where timber production is the primary objective, but also applicable to general soil and water conservation purposes where the productivity or size of the tract may not be conducive to cost-effective timber production.

Improving a Stand of Forest Trees

In all counties, may be used in lieu of FIP on productive sites where timber production is the primary objective, but also applicable on general soil and water conservation purposes where the productivity or size of the tract may not be conducive to cost-effective timber production.

Limitations

The maximum cost-shares that a person can earn annually for forestry practices under ACP is \$3,500. Up to 75% of the costs can be provided.

5. <u>Implementation Strategies</u>

5.1 <u>Proposed Forest Zone</u>

The Planning Commission proposes to implement the Forest Lands Goal by establishing one forest zone. That zone is as follows:

F – "Forest"

Within the forest zone, the extent of preservation of forest lands primarily for forest uses will be established through implementation of the zoning ordinance. Specifically, standards within the ordinance are set to delineate those areas, or parcels, which have historically been managed as "mixed use" areas, including both farm and forest uses. Based on the June 24, 1983 DLCD Staff Report on Coos County, it is understood that uses in these "mixed use" areas are appropriately expanded to include additional nonforest uses that may not otherwise be allowed in a prime commercial forest zone. As stated in that report: "The Commission's decision in <u>Allen v. Umatilla County</u> (LUBA 83-076) supports the mixed use/predominant forest use concept and establishes separate requirements for authorizing certain nonforest uses in each forest area". (June 24, 1983 DLCD Staff Report, p. 106)

The zoning ordinance standards are used, ultimately, to determine the degree of productivity of the land for forest production vs. the productivity of the land for farm use. It is the intent of the Planning Commission to strictly preserve prime commercial timber areas in the county, while allowing for some justified non- forest uses in the areas established as "mixed-use" areas. These "mixed-use" areas are identified on the "Mixed Agriculture-Forest Use Areas" inventory map based on specific review criteria.

Standards for determining the degree of allowance for non-forest uses are based on such things as productivity of the land for forestry, historical land use (i.e. farm uses), terrain and surrounding uses. The review process will occur at the request of the applicant on a case by case basis

There are basically <u>two</u> different types of forest areas in Coos County. These are (i) prime forest areas, and (ii) mixed farm-forest areas. Certain non-farm uses not allowed in the former may be allowed as conditional uses in the latter. The two types of forest land are described in greater detail, as follows:

- (i) "Prime Forest Area". These areas or parcels are typically large contiguous blocks of undeveloped land which are managed exclusively for timber production with some ancillary forest uses.

 Intensive forest management is practiced within this classification. A parcel or area subject to this classification will be preserved primarily for forest uses.
- (ii) "Mixed Farm-Forest Area". These areas include land which is currently or potentially in farm-forest use. Typically such lands are those with soil, aspect, topographic features and present ground cover that are best suited to a combination of forest and grazing uses. The areas generally occupy land on the periphery of large corporate and agency holdings and tend to form a buffer between more remote uplands and populated valleys. In addition, these "mixed use" areas contain ownerships of smaller size than in prime forest areas. Some are generally marginal in terms of forest productivity, such as areas close to the ocean.

In certain areas of the County, these "mixed use" areas consist of extensive uplands where the lands are held predominantly by ranchers who manage their properties interchangeably between grazing and forestry depending on the economic base of each commodity at any given time. An essential management approach practiced by these ranchers is to maintain enough upland grazing acreage to sustain livestock during the winter months due to the flooding of lowland areas. Some intensive forest management is

practiced on these lands, but not to the same extent as in "prime forest areas", and grazing is in many places a co-dominant use. There are typically a mixture of farm and forest uses in these areas. Certain non-forest uses will be allowed in areas that meet the criteria of this classification as established in the zoning ordinance.

The mixed use areas are identified at a scale of 1'' = 2 miles on the "Mixed Agricultural-Forest Use Areas" Comprehensive Plan inventory map. A change in the boundary of the "mixed use" inventory map will require a comprehensive plan amendment. Criteria used to designate these areas are as follows:

- 1) Mixed use areas are those areas with soil, aspect, topographic features and present ground cover that are best suited to a combination of forest and agricultural uses.
- 2) Mixed use areas are those areas generally managed to maintain enough upland acreage to sustain livestock during the winter months due to flooding of lowland areas.
- 3) Mixed use areas are those areas predominantly co-managed for both farm and forest uses.

APPENDIX A.

Problem Statements, Policies and Forest Zones as developed by the Forestry Task Force (1977)

The initial work on the development of goals and policies for forest lands was done by the Forestry Task Force. The Task Force was made up of citizens with special knowledge of the topic, including representatives from forest industry, private forest land owners, ranchers, forest products, transportation, and public agencies involved in the use and management of forest lands. There was at least one representative of each Regional Planning Group on the Task Force. Their findings are presented below. These findings were preliminary to the development of this inventory document and comprehensive plan policies and differ in important details. They should be regarded as initial citizen input into the planning process.

The group began by delineating two distinct types of forest land: "exclusive forest land", identified as land containing basically nothing but trees, and "forest-farm land", identified as being a mixture of timber production and grazing/agricultural land. Both .types of land require intense management, although the techniques used by each vary somewhat. It was agreed that scattered residential development in both areas does present management problems or restrictions. The recognition that some residential development exists in these forest lands and rural residential development prompted the group to develop a third land type category, "forest rural-residential" land. Inclusion of the category was not necessarily meant to condone development, but to recognize the existence of such development as a fact of life.

Some of the major issues and problem areas identified by the Task Force include:

- Distinction between types of forest land.
- Encroachment of residential and other inharmonious uses into forest land.
- Limitations, particularly by nearby residential use, on intense forest management, especially on aerial spraying.
- Noise conflicts.
- Logging transportation problems, specifically the discrepancy between bridge weight limitations and economical loads and grade alignment problems in the development of logging roads.
- The declining supply of raw wood and need for greater wood utilization.
- Problems created by nearby residential development in forest-farm land areas, especially the preying of domestic dogs on sheep and competition for water.
- Declines in diversity of forest land leading to a decline in wildlife diversity.

From this discussion of issues, problems, and areas of concern, the task force developed the following goal and list of policies. Their goal statement is quite similar to the Statewide Forest Lands Goal.

First Draft Goal

To provide for the conservation and maintenance of forest lands for forest uses. To recognize FOREST LAND as being composed of Exclusive Forest, Forest-Farm Land, and Forest Rural-Residential types.

First Draft Policies

- 1. Minimize incompatible activity on all FOREST LAND types.
- 2. Encourage reforestation and other sound management programs in compliance with the standards of the Oregon Forest Practices Act.
- 3. Encourage new harvesting and technological processes that enhance wood utilization.
- 4. Encourage multiple use of FOREST LAND: including but not limited to: watershed management; recreation; fish and wildlife management; development of mineral, aggregate, and energy resources; and agricultural practices; consistent with sound forest and agricultural management.
- 5. Maintain and promote productive ground cover, including timber, forage, and agricultural crops, on Forest-Farm Lands, as dictated by the site and decisions of the landowner.
- Encourage the maintenance of Exclusive Forest Land and Forest-Farm Land in large contiguous blocks.
- 7. Provide for low-intensity residential development, which minimizes the impact on FOREST LANDS by maintaining the majority of the parcel in forest, or agricultural uses.
- 8. Minimize residential development along public and private roads in FOREST LANDS.

In order to facilitate identification of the different types of FOREST LAND, the task force set up the following set of criteria:

First Draft Criteria for Delineating Forest Lands

- 1. Exclusive Forest Type
 - a. Presently or potentially in forest uses;
 - b. Contiguous forest land of approximately 500 acres
 - c. Existing development and ownership patterns which show numerous lots under 40 acres in size should not be included in the Exclusive Forest Land Type unless this subdivided ownership is presently devoted to forest-farm uses.

2. Forest-Farm

- a. Presently or potentially in forest uses;
- b. Contiguous forest land of approximately 300 acres
- c. Existing development and ownership patterns which show numerous lots under 40 acres in size should not be included in the Forest-Farm Land Type unless this subdivided ownership is presently devoted to forest-farm uses.
- 3. Forest Rural Residential Type

- a. Low intensity single family dwellings bordered or surrounded by Exclusive Forest or Forest-Farm Land types should be included.
- b. Low intensity single family dwellings located between Exclusive Forest or Forest-Farm Land types and moderate intensity residential development should be included.

<u>Definitions Developed by the Forestry Task Force to Accompany the Set of Policies and Criteria Drafted</u> by Them

FOREST LAND types:

- 1. Exclusive Forest Large contiguous blocks of undeveloped land, whose present or historical ground cover is trees. These lands will provide for the continual production of forest products and for other uses compatible with forest activities. (Committee recommends a minimum lot size for single family dwellings of 160 acres).
- 2. Forest-Farm Land Those lands whose soil, aspect, other topography features, and present ground cover are best suited to a combination of forest, forage, and agricultural uses. Generally, these lands have been managed for these purposes. (Committee recommends a minimum lot size for single family dwellings of 100 acres).
- 3. Forest Rural Residential Areas suitable for: mixed grazing, agriculture and timber production; and low-intensity residential development compatible with the rural forest environment. (Committee recommends a minimum-lot size for single family dwellings of 10 acres).

<u>LOW INTENSITY RESIDENTIAL DEVELOPMENT</u> – Minimum of 10 acres of an area containing four houses for 40 acres.

<u>MODERATE INTENSITY RESIDENTIAL DEVELOPMENT</u> – Minimum lot of 5 acres or an area containing eight houses for 40 acres.

LITERATURE CITED

- 1. <u>Timber Resource Statistics for Oregon</u>; P.M. Bassett and G.A. Choak, USDA Forest Service Research Bulletin PNW 56, 1975.
- 2. "Labor Force Trends", Coos Bay Local Office, State of Oregon Department of Human Resources, Employment Division; May, 1976 April, 1977. With staff computations.
- 3. <u>Economic Survey and Analysis of the Oregon Coastal Zone</u>; G.A. Kuhn, et. al, for the Oregon Coastal Conservation and Development Commission; 1974; p. E-55. "Coast" refers to the five complete coastal counties: Clatsop, Tillamook, Lincoln, Coos and Curry.
- 4. <u>A technique and Relationships for Projections of Employment in the Pacific Coast Forest Products Industries</u>; B.R. Wall and D.D. Oswald; USDA Forest Service Research Paper PNW-189, 1975, p. 8-13.
- 5. Ibid; p. 6-7.
- 6. <u>Importance of Timber-Based Employment to the Douglas Fir Region, 1959 to 1971</u>; W.R. Maki and D.L. Schweitzer; USDA Forest Research Note PNW 196.; 1973.
- 7. <u>Timber for Oregon's Tomorrow</u>; J.H. Beuter, K.N. Johnson, H.L. Scheurman; Oregon State University, Forest Research Laboratory, Research Bulletin 19, 1976; p. 11-13, and 37-39.

3.3 MINERAL AND AGGREGATE RESOURCES

3.3 MINERAL & AGGREGATE RESOURCES

Planning Considerations

Special attention must be given to mineral and aggregate resources when planning for future land uses because these resources are generally non-renewable, because they are limited in distribution, and because they form part of the economic base of the County.

There are several factors to be considered, including present and future need for a specific resource; whether recovery of the resource is or will become economic; whether and to what extent an area where a potential resource occurs is committed to other uses; and whether development of the resource would cause conflicts with other environmental resources such as unique or critical wildlife habitats or municipal water quality or supply.

Development of mineral and aggregate resources involves not only the area from which the resource is being mined or recovered; it also involves processing, transportation, and storage. It is helpful if these needs are also met and coordinated through comprehensive planning.

Planning can also help minimize the impact of resource development by providing buffer zones around noisy mining or processing operations and by providing for future uses for abandoned pits and reclaimed areas.

Goal Requirements and Agency Responsibilities

The Statewide Planning Goals require protection of natural resources, including mineral and aggregate resources. Further, 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" of protection of resources. (Goal #5).

Agencies with pertinent regulatory responsibilities are listed below:

- Oregon Department of Geology and Mineral Industries (DOGAMI)— Issues permits for certain surface mining activities; identifies mineral resources that may be developed; maintains records on mining claims and oil and gas well logs; assays mineral and ore samples; gathers and interprets geological data.
- Mined Land Reclamation Division of DOGAMI—Oversees reclamation of mining claims.
- U.S. Geologic Survey—Gathers and interprets geological data.
- Bureau of Land Management—Oversees mining and reclamation activities on Federal lands under its management.
- Oregon Department of Environmental Quality:-Regulates gravel removal from streambeds; administers and enforces State laws regarding water quality, air pollution control, noise pollution control and solid waste disposal.

Location

The mineral, aggregate and non-renewable energy resources of Coos County have been identified on a map at a scale of 1/2" = 1 mile and include:

- 1. Coal basins
- 2. Oil and gas exploration leases
- 3. Metal mines and prospects
- 4. Crushed rock quarries
- 5. Sand and gravel pits
- 6. Chromite bearing sands

In addition, one map at a scale of 2'' = 1 mile addresses in greater detail the extent and status of deposits in the Coos Bay coal field.

The general area of current oil and gas exploration leases was identified by the Coos County Assessor's office. The extent of chromite bearing sands is mapped in a report published by the U.S. Bureau of Mines. Other information presented on these two resource maps is based on studies by the Oregon Department of Geology and Mineral Industries.

The metallic mineral resources are generally restricted to the older rock formations of the County (formed during the Jurassic age, 190 to 136 million years ago). The only known exceptions are placer deposits (occurrences of minerals eroded from their place of origin, concentrated by stream or wave action, and deposited along streams or on beaches) These Jurassic formations are found only in the southern part of the County.

The Coos Bay area has been the site of downwarping since the Eocene times (roughly 50 million years ago). At times that area was occupied by swamps and significant thickness of organic material collected and were later transformed into coal. The coal of Eden Ridge and Squaw Valley is also Eocene in age, though it belongs to a somewhat older formation.

Blueschist deposits suitable for jetty stone and crushed rock are limited to the same area of Jurassic rocks as metallic mineral deposits. Basalts suitable for both uses are found in some locations in the younger rocks of the rest of the County. The basalts are distributed in isolated patches in the valleys east of Coos Bay and in the middle Coquille drainage.

Oil and gas potential is limited to the younger rocks of the County and is most promising in the same downwarped region as the Coos Bay coal field.

<u>Assessment</u>

Coal (REV. 01/88 ORD 87-11-016L)

The location and approximate extent of the Coos Bay and Eden Ridge coal fields are outlined on the ½" = 1 mile scale inventory maps. In addition, detailed mapping (2" = 1 mile scale) of the Coos Bay field identifies "minable", "prospective" and "remotely possible" coals.

Coal deposits are generally characterized as sub-bituminous in nature with moderate to low hearing values as measured by British Thermal Units (BTU). The Coos Bay coal yields values in the 9,260 to 10,080 BTU range while the Eden Ridge coal contains much lower values in the 6900 to 8350 BTU

range. Coal from both fields are low in sulphur and moderate to high in ash content. Moisture content varies considerably.

Coos Bay coal possesses good handling characteristics (friability). However, the coal has a moderate to high tendency to disintegrate during storage (slacking). Moisture evaporates as the coal is exposed to air causing shrinkage, cracking and disintegration. The net result is an increase in coal "powder" and a reduction in value. Similar information is currently unavailable for the Eden Ridge field.

Structurally, both coal fields indicate severe folding and faulting action. This results in steep dipping (i.e. inclination) and seam partings. These factors are especially true for the Eden Ridge field. Seams vary from 1 inch to 19 feet with most less than 5 feet thick. Though some are exposed, most seams lie beneath considerable overburden and generally at depths greater than 1000 feet below the surface. At times this overburden consists of clay, which requires extensive timbering or the retention of part of the coal seam, to prevent swelling and collapse.

The County is estimated to contain approximately 1 billion tons of coal. However, those identified as either being "minable", "prospective" or "remotely possible" total only 119 million tons in the Coos Bay field. Eden Ridge is estimated to contain in additional 50 million tons; however, sufficient information exists to properly categorize this coal.

Quality, quantity, location, available technology and the market place all factor into determining the amount of coal currently minable. Best estimates indicate that out of approximately 1 billion tons only 60 million tons are currently minable.

Extraction of these County coals requires, in almost all instances, the use of sub-surface mining techniques. Due to factors such as overburden removal, tunnel supports, inclination of the shaft, safety requirements and other factors, the technology is both inefficient and expensive. Extraction costs limit the coals' economic potential.

The coal for which Coos County would be in direct competition is located in the Intermountain States and the Northern Great Plains. By contract, these coals are characterized as near-surface or surface coals lying in relatively flat, thick, gently dipping seams greater than 5 feet in thickness. Readily available earth moving equipment is all that is necessary to extract the resource. Further, the coal fields are extensive. One 63-county area in the Northern Great Plains contains 160 billion tons of proven reserves, one-half of which are surface- minable. These easy to obtain coals are coupled to highly efficient transportation systems which provide for the required long-term production and delivery commitments.

Coal possesses alternative uses as well: gasification and chemical by-products. Gasification is an expensive process requiring long-term coal availability. A gasification facility producing 250 million cubic feet per day would require construction costs of \$180-400 million and annual operation costs of \$60 million (1975 figures). Further, annual coal requirements would be 6 to 8 million tons or approximately 100 million tons for a 30-year plant life. This requirement exceeds current minable deposits by a factor greater than 3. Chemical by-products possess a similar requirement for available quantity of coal. Further, a considerable quantity of clean water is necessary. Water resource availability, as well as coal availability, places a severe restriction on plant feasibility.

As the cost of competing energy resources rises, coal becomes more desirable on a comparative delivered cost per BTU. The key here is delivered cost. Again, while increased oil prices may enhance local coal's viability, the vast quantities of easily extractable, competing coal coupled to efficient transportation systems reduce, if not eliminate, the feasibility of local coal extraction.

Historically, coal has been a mined resource in Coos County. However, in 1920 production ceased as the oil fields of Southern California came on line. Today, competing coal fields maintain this energy dominance over local coal. Thus, due to quality, quantity, geological, technological and economical factors, the current or future extraction of local coal is at best, extremely remote. Therefore, coal resources are to be classified as a "5 (a)" resource not requiring inclusion in the Goal #5 inventory list. The existence of coal resources should not conflict with permitted or conditionally permitted uses in Coos County.

The information presented above was compiled from the following sources:

Beaulieu, John D. and Paul W. Hughes. <u>Environmental Geology of Western Coos and Douglas Counties</u>, Oregon. Salem, Oregon: Oregon Department of Geology and Mineral Industries, Bulletin #87, 1975.

Brownfield, Michael D. "Oregon's Coal and Its Economic Future." <u>Oregon Geology</u>, Vol. 43, No. 5, May, 1981, pp. 59-67.

Mason, Ralph S. and Paul Hughes. <u>Economic Factors Affecting the Mining, Processing, Gasification, "and Marketing of Coos Bay Coals.</u> Salem, Oregon: Oregon Department of Geology and Mineral Industries, Open-file Report #0-75-6, 1975.

Oil and Gas

Exploratory drilling for gas and oil has been carried out in the County since 1919 with some gas and oil reported, but no significant production. Improved exploration techniques and the rising costs of imported petroleum products have probably contributed to current interest. There has been renewed interest in exploration for natural gas within the County recently. The resource mapping indicates the area within which most of the currently recorded onshore leases are held. Not indicated are the continental shelf lands offshore from Coos County that perhaps hold the best local prospects for petroleum exploration.

Associated impacts of oil and gas development revolve around pipeline construction and finding suitable storage sites for dangerous materials and suitable sites for construction of terminal facilities.

Metallic Mineral Resources

The metal mines and prospects indicated on the map include lode chromite, copper, manganese, gold and silver. There are no known reserves of lode chromite in the County, and no significant known reserves of

silver. There are no known reserves of lode chromite in the County, and no significant known reserves of copper or manganese, although there is the possibility that significant copper reserves exist in the Mt. Bolivar area. ⁶² Production of gold and silver from lode prospects has historically been negligible; however, increased prospecting can be expected as gold prices continue to rise. Gold, platinum and chromite have historically been extracted from the black sands deposited along the southern Oregon coast and offshore deposits may hold potential for future exploration. The extent of chromite-bearing sands occurring north of Bandon has been indicated on the map. There are also several smaller known occurrences in the Bandon area and south of South Slough (see Figure 1).

Chromite, source of the element chromium, is a strategically important mineral, used to produce non-corrosive, high-strength, heat-resistant characteristics in alloys (alloys used for nuclear reactor parts, for instance) and to electroplate metal parts. Chromite is produced in only a handful of nations: Turkey, the Union of South Africa, the Soviet Union, the Philippines and Rhodesia. Most of the chromite used in this

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⁶² Ewart Baldwin, et. al., <u>Geology and Mineral Resources of Coos County</u> (Department of Geology and Mineral Industries Bulletin 80, 1973), pp. 52-59.

country is imported. During World War II the U.S. government stockpiled chromite (concentrated from black sands) near Coquille. Should the international situation change, Coos County's black sands could become economically valuable.

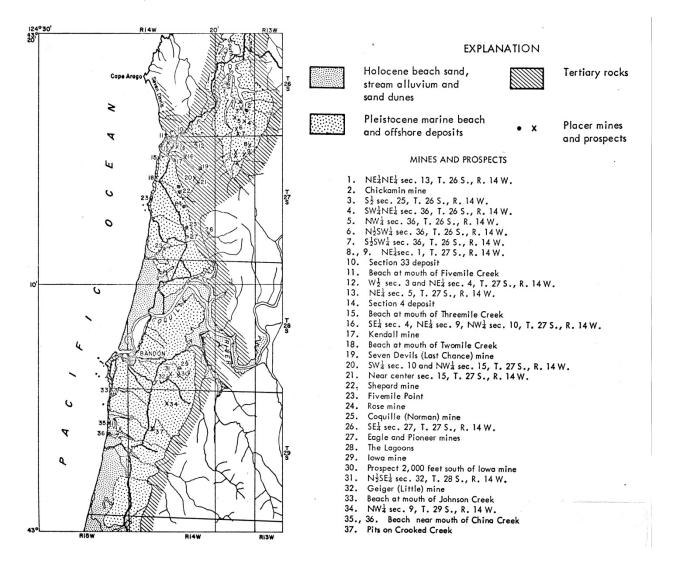


Figure 1. Black Sand Mines and Prospects. (From <u>Geology and Mineral Resources of Coos County</u>, Ewart Baldwin, et. al., DOGAMI Bulletin 80, 1973, p.46.)

Crushed Rock

Crushed rock quarries in the County are located for the most part in deposits of marine basalt that provide a good grade of material for road fill, base and surfacing. Stone of a suitable quality and size for jetty construction occurs in blueschist deposits such as on Baker Creek near Powers, and in a few marine basalt deposits in the middle reaches of Kentuck Slough.

While there is sufficient rock suitable for roadfill, base material and surfacing, these resources are important because the County is deficient in high-quality rock for concrete aggregate. 63

Sand and Gravel

Sand and gravel are found in Coos County in marine terrace deposits near Bandon and in the bed of the South Fork of the Coquille River below Powers. Production cannot meet local needs, however, and most of the gravel used in the county is trucked or barged from the Umpqua River in Douglas County. Sand is plentiful and is mined on Coos Bay's North Slough for glass manufacturing in the Willamette Valley.

The current rate of consumption of sand and gravel in the County is about 7 tons per capita. At that same rate of consumption, the County's need by the year 2000 could total 644,000 tons. While most gravel will probably continue to be imported into the county, protection of economical gravel sources within the County is important to help answer local demand and to conserve energy resources.

Other Aggregate Site Inventory

Pursuant to ORS 215.298(2), property zoned "Exclusive Farm Use" is identified as inventoried "IB" aggregate sites, in accordance with OAR-16-000(5)(b). There is not adequate information available to complete the Goal 5 process for the property. (ORD. 92-08-013PL)

Potential Conflicts

The distribution of areas designated rural-residential in the land use plan (see "housing," Section 4.5 in this document) takes the presence of specific black sand mines and prospects into account, though sites are not excluded from consideration if the mineral is located on them. Few conflicts occurred, however, and all sites appear to have been excluded for a combination of reasons in suitability evaluation.

Since the full extent of the black sand deposits is not known, it is possible that further housing development in the area west of Seven Devils Road from Agate Beach south to Cut Creek (the area outlined as "Area of Chromite-bearing sands" on map) can jeopardize resources that may be needed in the future. This area is currently receiving development pressure. Potential aggregate resource development areas may receive pressure for residential development in the future, although this is not certain. Existing rock and aggregate (sand and gravel) mining operations are generally noisy, dusty and involve considerable disturbance of the land. Safeguards are necessary to ensure compatibility, and this is accomplished through a conditional use process where findings must be developed to determine which conflicting use (i.e. housing or aggregate mining/processing) should be allowed.

Standards are provided in the implementing ordinance.

Processing of minerals can involve large amounts of water and produce undesirable by-products. Discharges are regulated by the Department of Environmental Quality. Water resource needs can be coordinated through the comprehensive land use plan, within the framework of the State's water laws and regulations, if and when the need arises. No such conflicts are foreseen for the planning period. (REV. 01/88 ORD. 87-11-016L)

⁶³ Beaulieu & Hughes, p.46

3.4 FISH AND WILDLIFE RESOURCE I HABITATS

Goal Requirements

Regulatory Agencies and Processes

Wetlands

Types, Identification and Location Values and Functions Uses Suitability for Development

Fish Resources and Habitat

Marine Estuarine Freshwater

Big Game Resources and Habitat

Bird Resources and Habitat

Miscellaneous Wildlife

Endangered Species and Sensitive habitats

Fish and Wildlife Values

Sports fisheries

Commercial fisheries Game Furbearers Other Values

Potential Conflicts

Appendices

- 1. Important Estuarine Wildlife Resources
- 2. Recommended Minimum Stream Flows
- 3. Correspondence from ODFW, April 11, 1980
- 4. Partial Checklist of Birds
- 5. Rare, Endangered and Peripheral Species

3.4 FISH & WILDLIFE HABITATS & RESOURCES

Goal Requirements

Statewide Planning Goal 5 requires protection of natural resources, including fish and wildlife areas and habitats, ecologically and scientifically significant natural areas, and water areas and wetlands. The goal also requires that:

Where no conflicting uses for such resources have been identified, such resources shall be managed so as to preserve their original character. 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.

Also relevant are the following:

- Goal 16, which stipulates that estuary plans and activities "shall protect the estuarine ecosystem, including its natural biological productivity and habitat";
- Goal 17, which requires maintenance of fish and wildlife habitat; the reduction of adverse effects upon such habitats; and protection of major marshes and significant wildlife habitat within coastal shorelands;
- Goal 18, which requires that uses in beach and dune areas be based upon "the need to protect areas of critical environmental concern, areas having... scientific or biological importance, and significant wildlife habitat".

Regulatory Agencies and Processes

Federal Authority

The Federal government has interests in protection of migratory fish and wildlife habitats, requires planning in the coastal zone, and has authority over waters of the United States and associated developments on land that affect those waters. Some relevant legislation and permit systems of major importance are briefly described below.

- River and Harbor Act of 1899 Controls building in any waters of the U.S.; controls excavating and filling in any navigable waters of the U.S. Administered through the Section 10 permit system by the U.S. Army Corps of Engineers (ACOE).
- Federal Water Pollution Control Act of 1972 (FWPCA) Requires Environmental Protection Agency (EPA) approval prior to issuance of Section 10 permits; sets up Federal permit systems to carry out certain pollution discharge activities in navigable waters.
- Section 402 of FWPCA Requires permits from EPA for discharge of any pollutant into navigable waters.
- Section 404 of FWPCA Expands Section 10 to include all waters of the U.S.; controls disposal of dredged material or fill into national waters, <u>including wetlands associated with those waters</u>. [A 404 permit is required for any activity involving placement of fill in a wetland regardless of the size of the wetland, if that wetland is: (a) adjacent to or contiguous with a stream with an

average flow of 5 cubic feet per second or more, or (b) adjacent to or contiguous with a lake with surface area greater than 10 acres.]

- Endangered Species Act of 1973 Provides mechanism for maintaining list of threatened and endangered species; provides guidelines for management of these species on all lands which are federally owned, managed, or involve federal authorization or funding; provides financial assistance to states for management and implementation of endangered species programs. Gives responsibility under the Act to Department of the Interior and Department of Commerce, though primary management is through U.S. Fish and Wildlife Service.
- Coastal Zone Management Act of 1972 Requires states to develop management plans for coastal zone; sets guidelines and minimum requirements for those plans; provides administrative grants for plan implementation; provides for Federal purchase of wetland areas to protect migratory bird flyways and fish passage areas; provides grants, loans, technical guidance to states for wetland management activities.
- Executive Order, "Protection of Wetlands" (E.O. 11990) Requires Federal agencies to take action to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands..."

Federal Agencies

Many Federal agencies have either direct jurisdiction over lands including fish and wildlife habitats or jurisdiction over actions affecting or potentially affecting those habitats. Some of the most important agencies and brief description of their relevant functions are listed below:

- Bureau of Land Management Has exclusive jurisdiction for management of lands and resources of approximately <u>156,000</u> acres in Coos County.
- Forest Service Administers National Forest lands for outdoor recreation, range, timber, watershed and fish and wildlife resources.
- Fish and Wildlife Service Objective is to insure conservation of wild birds, mammals and sport fish in the U.S. Activities include stoking of public waters, promoting best methods of managing wildlife in their natural habitat, supervision and control of predatory animals, and review of proposals for work or activity in or affecting public waters (e.g. permit applications made under Section 10, Section 402 and 404). Administers Oregon Islands National Wildlife Refuge.
- Army Corps of Engineers Administers some Federal land in County. Regulates use of navigable waters, including dredge and fill in wetlands.
- Environmental Protection Agency Has jurisdiction over management of air, land and water quality, much of which is delegated to states; has permit-review authority, permit-issuing authority, oversight for Section 404 permit system.
- Soil Conservation Service Provides management recommendation for areas with wet soils; inventories set soils.

 National Oceanic and Atmospheric Administration – Regulates off-shore fisheries through the National Marine Fisheries Service and oversees coastal planning through the Office of Coastal Zone Management.

State Authority

States have traditionally held authority over the taking of fish and wildlife. In addition, the State of Oregon is the owner of submerged and submersible lands of the navigable streams, lake and tidal lands within Oregon. The State also has jurisdiction over the management of natural resources, the protection of water quality and land use planning. Oregon's fish and wildlife policies, along with other relevant legislation are cited below:

- ORS 506.109 (Food Fish Management Policy) Sets goals including the maintenance of all species of food fish at optimum levels and the prevention of extinction of any indigenous species.
- ORS 496.012 (Wildlife Policy) Sets wildlife management goals including preventing the serious depletion of any indigenous species and maintaining all species at optimum levels.
- ORS 541.600 (Dredge and Fill Law) Regulates dredge and fill activities in State waters extending to the mean high water line; requires that Division of State Lands administer permit system.
- ORS 468.700-775 (State Waste Discharge Permit) Under State authority and by delegation of EPA's permit authority, the Department of Environmental Quality (DEQ) issues permits for the discharge of wastes into waterways and on land.
- ORS 527.600 (Forest Practices Act) Establishes forest management policies, including maintaining and enhancing habitat for wildlife and aquatic life. Requires State Board of Forestry to carry out these policies by establishing minimum standards for forest practices.
- ORS 449.765 Requires DEQ to adopt and enforce minimum standards for solid waste disposal (also applies to filling in the wetlands with refuse, particularly wood waste).
- ORS 273.562-597 (Natural Areas Preserves Statute) Authorizes State Land Board to establish natural preserves.

State Agencies

Primary State agencies with regulatory authority over fish and wildlife resources or habitats or actions affecting those resources or habitats are listed below:

- Oregon Department of Fish and Wildlife (ODFW) Formulates and implements policies and programs for management of fish and wildlife.
 - Reviews many types of permits including Section 10, Section 404, State fill and removal, waste discharge, pesticide use and forest operating permits. Established minimum stream flow requirements for anadromous fish.
- Department of Environmental Quality (DEQ) Develops and enforces water quality regulations. Has permit review authority.

- Department of Forestry Manages State forest lands for fish and wildlife value as well as other benefits; enforces Forest Practices Act.
- Water Resources Department Manages water resources of the State.
- Parks and Recreation Department Manages State Park lands and beach zone; protects major fish and wildlife habitats under its jurisdiction.
- Division of State Lands (DSL) Administers dredge and fill laws; has jurisdiction over submerged/submersible lands.

Local Authority

Local authority over fish and wildlife habitats is exercised mainly through land use planning and controls such as zoning. The consistency requirement of the Statewide Planning Goals ensures that State, Federal and Special District actions and plans will be consistent with the local comprehensive land use plan. Several permit processes mentioned earlier specifically require a consistency determination from the County before a permit application is considered complete; these include Section 404 permits and DSL dredge and fill permits.

Wetlands

Type, Identification and Location

Coos County has an abundance of both estuarine and inland wetlands. Estuarine types include coastal tidelands, eelgrass, tidal marsh and estuary and bay (those water areas shallow enough to be diked and filled). Inland types include dunes marsh, inland marsh, lakes and reservoirs, riparian vegetation, wet meadows, bogs and swamps. Approximate acreages for some of these types are shown below.

Table 1

Estimated Quantity of Selected Wetland Types in Coos County

Type	<u>Acreage</u>
Estuary and bay	6,800
Coastal tidelands	4,720
Eelgrass	1,680
Inland marsh	1,080
Lakes and reservoirs	2,620
Riparian vegetation	2,138
Wet meadows	3,840

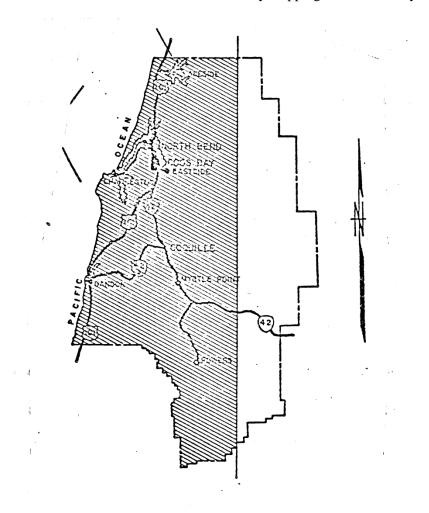
From <u>Coastal Wetlands of Oregon</u>, Glenn J. Akins and Carol A. Jefferson, (Oregon Coastal Conservation and Development Commission, 1973).

Wetlands have been identified on a map at a scale of 2 inches = 1 mile from the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI). The NWI maps were produced from aerial photos taken in July 1976 and June 1977 and later field checks. Wetlands were identified on the basis of vegetation, visible hydrology and geography. The maps can be taken as indicating the location of most wetlands of concern under the Section 404 permit process (see "Regulatory Agencies and Programs" above). The maps do not necessarily show the full extent of seasonal flooding. For example, most of the Coquille River floodplain is inundated several times yearly on C.ne average and has wetland value as a significant resting and feeding area for migrating waterfowl; however, only those portions that are wet enough year-around to support wetland vegetation are shown as wetlands on the NWI maps. It should also be noted that not all floodplain areas identified on the natural hazards map are wetland areas. Finally, NWI mapping has been done only for the coastal portion of the County (see Figure 1 below).

Estuarine wetlands are located on the Coos Bay and Coquille River estuaries and are addressed in greater detail in the estuary management plans. Dunes marshes are found in the Coos Bay Dune Sheet (north of Coos Bay to the county line and primarily west of Hwy. 101); in the dune sheet extending several miles north from the mouth of Coquille; and in the older as well as younger dunes areas south of Bandon. Estuarine and dune wetlands are of special importance to migratory wildfowl during winter flooding. Riparian vegetation lines most of the banks of river streams and lakes in Coos County. The major exceptions are intermittent dunes lakes, which appear only in winter, dunes lakes that are being encroached upon by active dunes, and areas where public or industrial or other private access has been constructed. Wet meadows, the most abundant inland wetland type in Coos County, are found primarily in the Coquille Valley and along Coos Bay sloughs and Coos River. These are largely areas of former salt or freshwater marsh that were diked and drained. In Coos county natural bogs are often associated with dunes but may also be found on coastal terraces. The greatest abundance of bogs is found east and south of Bandon. It should be noted that cranberry bogs, which are entirely artificial, are also included in the National Wetlands Inventory. They are separately identified on the inventory maps, as are artificial water bodies (cranberry, sumps, farm ponds and mill ponds), wet meadows in agricultural use and former agricultural areas now reverted to wetlands which are considered suitable for eventual reclamation [see discussion below].

FIGURE 1

Limits of 1977 National Wetlands Inventory mapping in Coos County



Values and Functions

Wetlands convert sunlight, carbon dioxide and water to nutrients usable by a wide range of organisms. They supply habitat and cover as well as food to a wide variety of fish and wildlife. Wetlands provide hydrologic and water quality benefits in several ways. They recharge aquifers, provide natural flood control, moderate water temperature, absorb pollutants, prevent siltation and erosion, and improve summer stream flows. These impacts are important to fish as well as man and are discussed under "Fish Habitat" below.

In addition, Coos County wetlands contribute agricultural production and provide opportunities for recreation, scientific investigation, education, observation of the natural world, and aesthetic enjoyment.

Uses

The greatest loss of wetlands in the County has resulted from the diking and draining of land for agricultural uses and from fills in tideland. However, much of the diked or drained agricultural land in the

county retains some wetland value, particularly in the Coquille Valley. Filled land has been turned to residential and industrial uses. Wetlands have also been involved in log transportation and storage and dredge spoils disposal. Construction of highways has affected wetlands both directly by filling areas and by blocking or changing water flow and indirectly by encouraging development requiring further fills.

Uses with impact on wetlands include hunting (ducks, geese, deer, bank-tailed pigeons), clamming, crabbing, birdwatching nature study, photography and education.

Suitability for Development

Wetlands have a low suitability for commercial, residential, and industrial development activities because of their high flood potential, compressible soils, high water tables and aquifer recharge functions. Agricultural development, however, while certainly compromising some wetland functions and values, has shown to be compatible with others or even beneficial. For instance, the seasonally flooded Coquille Valley is of great habitat value for migrating waterfowl.

In its original natural state before agricultural development, the entire valley bottom was covered in thick vegetation, and was not available for migratory wildfowl.

Improved drainage of "wet meadow" areas found in low-lying areas of the valley would displace wetland plant species (rushes, sedges, etc.), but would not prevent seasonal flooding. These areas would remain available for migratory wildfowl during the winter months. However, identification of these areas as wetlands could possibly prevent farmers from obtaining Corps of Engineers permits to construct or maintain drainage systems or tideboxes.

Beaver Slough and adjacent wetlands - A Goal 5 conflict

Beaver Slough and two neighboring smaller drainages to the west contain significant areas of emergent and shrub-scrub wetlands. In the past, these areas were cleared and drained and used as pasture, like the surrounding bottomlands of the Coquille Valley. However, a variety of circumstances led to the abandonment of drainage ditches and the reversion of these areas to a pre-settlement wetland condition. From 1910 to 1956 Coaledo Drainage District maintained about 1000 acres in this area in active agricultural use. This district has recently been reconstituted and now contains 452 acres. However, upstream landowners would also derive considerable benefits from its operation. The district intends to return this wetland area to agricultural use by clearing deciduous vegetation, dredging out clogged drainage ditches and sloughs and establishing more desirable varieties of grasses.

It has been determined that this area does not fall within the coastal shorelands boundary of the Coquille River Estuary. (See Coquille Estuary Management Plan), because a tidegate on Beaver Creek has removed the area from full tidal influence, though the former head-of-tide was in this area (Department of State Lands, 1979). Further, the area is not affected by direct flooding by the Coquille itself, due to the dike which carries North Bank Road to the south of the major wetland area.

Such an action would constitute a Goal 5 conflict, as this area is a significant wetland wildlife habitat. The following findings detail the likely consequences of reclamation of these areas for agricultural use, and their location, quantity and quality as wetland wildlife habitats.

Location

The wetlands in question total about 335 acres in the following locations:

Beaver Slough 160 acres T27, R13, S19, 16, 21

Coal Creek 105 acres T27, R13, S17 Unnamed Creek 70 acres T27, R13, S20

They are identified on the wetland inventory map.

Qualities

Much of this area is covered by willows, wax myrtle, alder and ash and associated shrubs, forming a dense closed canopy. It is typical of freshwater swamp habitats in an advanced stage of plant succession. The remainder supports emergent grasses and sedges. The deciduous vegetation is gradually colonizing the open areas. The entire area floods to depth of 5-10 feet during the winter months from run-off and ponding. The open areas are used by migratory wildfowl for resting and feeding, but not to the extent that the open agricultural areas are, because the birds prefer to graze on the cultivated grasses. During the dry season, the open wetlands support rodent populations, which are prey for raptors. They also support typical wetland bird species like marsh wren, rails, heron and egret. The sloughs and drainage ditches are habitat for catfish and in the case of Beaver Slough, anadromous species like sea run cutthroat trout also feed and pass through to spawning grounds.

Consequences of the proposed action

Returning the area to agricultural production would entail the following consequences. First, the local agricultural economy would be strengthened by the return of this area to grazing. It should be noted that it was partially poor economic conditions that led to the area being abandoned during the 1950's and early 1960's. (Dan Mast, Farmer's Home Administration, personal communication, 1980) Now that prices have improved there is a revival of interest in returning this area to agricultural use. The social consequences are linked to economic factors. A strong agricultural economy provides other social benefits through the other businesses in the area it helps support. The environmental consequences would not be as detrimental to wildlife values as might be expected. The removal of the existing wetland vegetation would displace some of the typical wetland bird species, and the rodent population would probably be reduced. However, the area would continue to flood in the winter, as does the rest of the Coquille Valley. Improved drainage would probably only reduce the season of inundation by a month or two. During the winter months when migratory wildfowl pass through the area, these lands would still be flooded. Thus, agricultural use would be compatible with seasonal wildfowl use, as it is throughout the valley. The removal of tree cover and the replacement of tall sedges by cultivated grasses would actually be likely to increase use by wildfowl, by increasing open areas for landing, resting and feeding. As observed by local farmers, ducks seem to prefer to graze cultivated grasses rather than the coarse rushes and sedges found in this area. In addition, removal of the thick growth of aquatic vegetation in the slough and drainage ditches could ease the passage of anadromous fish. It has been observed that egrets and herons are as numerous in wet and flooded pasture lands as they are in non-agricultural wetlands. A further benefit from increased wildfowl use of this area would be increased opportunities for recreational use through leasing of hunting rights to gun clubs.

The energy consequences of the proposed action relate primarily to the costs of conversion and maintenance in agricultural use. The initial clearing of trees and dredging of waterways would involve use of heavy equipment and significant fuel consumption. However, once pasture is reestablished, maintenance of the ditches would occur at approximately 12-15 year intervals. The energy inputs of this action are considered a good investment in the long term when compared with the agricultural output. It should be noted that the soils in this area are predominantly SCS Class IVw, Brailler Peat and Langlois silty clay loam. Historically, these areas supported beef and dairy cattle grazing, raised hay, and are considered potentially as good as any agricultural land in the valley, with elevations such that conditions

are dry enough during the summer to support clover mixtures in preference to the coarser reed canary grass found in wetter areas.

Based on the findings above, it is considered that a program to return this area to agricultural use would not only benefit the local agricultural economy, but would actually benefit certain wildlife species with recreational values, while displacing others. This program would effectively balance Goal 3 (Agricultural Lands) against Goal 5 (Open Spaces), and meet the intent of both.

Fish Resources and Habitat

Marine

No attempt to fully inventory the abundant offshore fish resources will be made here. However, the following list contains species of fish and shellfish having economic and/or recreational importance to Coos County: salmon, albacore, shrimp, halibut, lingcod, Pacific Ocean perch, sablefish, sole, crab, red snapper, black cod and hake. The average landings (in thousands of pounds) of catches landed in Coos County between 1971 and 1975 are shown below:

Table 2

Average commercial fish lands in Coos County between 1971 and 1975.

<u>Species</u>	Average Lands (x1000 pounds)
Salmon	2,979
Tuna	2,371
Groundfish	4,062
Crab	843
Shrimp	5,670
All others	95

Source: Oregon Department of Fish and Wildlife. From Comprehensive Economic Development Strategy, 1979-1980, Coos-Curry-Douglas Economic Improvement Association (1979), p. VII-28.

Estuarine

Appendix 1 lists important species in the Coos Bay and Coquille River Estuaries. Many of these, including groundfish as well as anadromous species, support a significant sport fishery in the estuaries. Estuarine habitats are inventoried and discussed in the management plans of the respective estuaries.

Freshwater

The streams and rivers of Coos County are inhabited by four species of salmon and trout including seven races, five of which are anadromous. The natural populations of rainbow and cutthroat trout, both native

species, are supplemented by artificial stocking. The only self- sustaining population of brook trout on the west slope of the Coast Range is found in Matson Creek (E. Fork Millicoma).⁶⁴

Table 3

Estimated number of adult anadromous salmonids spawning in Coos County streams. 65

Chinook

Stream System	Spring	Fall	Coho	Steelhead	Sea-run Cutthroat
Tenmile Lakes	0	0	17,900	10,500	8,000
Coos River	0	500	8,300	5,000	3,500
Coquille River	50	8,500	23,000	20,100	12,000

Other anadromous species include striped bass and shad, found in the Coos, Millicoma and Coquille Rivers.

The distribution of anadromous fish has been mapped at a scale of Vi inch = 1 mile on the basis of information supplied in a report titled <u>South Coast Basin</u> (State Water Resources Department, 1963). Warm-water game fish distribution is indicated on the table below:

Table 4

Warm-water game fish distribution, Coos County. 66

Species	Location
Bluegill	Tenmile Lakes
Brown bullhead	Tenmile Lakes Coquille River (tidal)
Crappie	Beale Lake
Largemouth bass	Tenmile Lakes Empire Lakes Beale Lake Horsfall Lake

Maintaining sufficient stream flow and protecting existing riparian vegetation are important if current habitat values for fish are to be sustained. In terms of stream flow, summer is the most critical period. The base flow in the summer is provided from groundwater supplies in the form of seeps and springs.

⁶⁶ Thompson, et.al., p. 5.

⁶⁴ Kenneth Thompson, et.al., <u>Fish and Wildlife Resource of the South Coast Basin and their Water Requirements</u> (1972), p. 3-5

⁶⁵ Thompson, et.al., p.4, with Coquille River update provided by Reese Bender, ODFW, in correspondence to Coos-Curry County of Governments dated November 7, 1978.

Increased withdrawal from groundwater stores for domestic and agricultural use depletes potential stream supplies. Low stream flow limits production of the aquatic insects that are the food source of young salmonids, deprives them of shelter and adversely affects water quality. Temperatures frequently rise above the 65° tolerance level; dissolved oxygen levels decline at a period when fish require increased oxygen because of high temperatures and any sediment introduced into the stream quickly settles out silting up food- producing and spawning areas, because stream velocity is insufficient to keep the particles in suspension.

Removing trees and riparian vegetation that shade streams causes the temperature to increase. In addition to simply exceeding the physical tolerance levels of the fish, high temperatures lower oxygen concentration, increase the incidence of disease and often produce conditions factorable for competing species of fish. A 50 foot riparian structural setback is determined to be adequate based on the recommendation of ODFW and DLCD.

Big Game Resources and Habitat

Roosevelt elk, black-tailed deer, black bear and cougar are the big game species found in Coos Comity. Their estimated populations are given below:

Table 5
Estimated big game populations in Coos County, 1976.⁶⁷

 Species	Estimated Population
Roosevelt Elk	4,953
Black-tailed Deer	10,632
Black Bear	1,066
Cougar	43

Sensitive and peripheral deer and elk habitats have been mapped at a scale of 2 inches = 1 mile by the county from maps at that scale provided by Bill Hines and Pete Perrin of the local office of the Oregon Department of Fish and Wildlife (see Appendix 3 for reference and habitat definitions).

Conflicts with existing and proposed land uses (including timber harvesting) are not a problem. The sensitive areas are entirely on the forestlands in the County, and there is no development in these areas. Peripheral areas have value as deer and elk habitat, but the wildlife value of these areas is reduced because of the density of existing development. The habitat value of impacted areas is limited or nil for big game because the density of development is too great ODFW has recommended that residential development be kept to a general minimum of one dwelling per 80 acres in areas identified as sensitive big game range. ODFW intends that these recommended minimum densities be applied over a broad area; they are not intended to be minimum lot size recommendations.

Volume I, Part 2 Page 104

⁶⁷ William W. Mines and Peter E. Perrin, Oregon Department of Fish and Wildlife, "Wildlife Protection Plan for Coos County", (1979), p.2.

Special Bird Resources and Habitat 68

Introduction

Coos County provides a wide range of bird habitats, much of which is generally compatible with adjacent land use activities and resource management practices (farming, forestry, etc.). However, six types of birds and bird habitat require special consideration to ensure their coexistence with other desirable land uses and activities. These include:

- 1. Bald Eagle Nesting Sites
- 2. Great Blue Heron Rookeries
- 3. Osprey Nesting Sites
- 4. Pigeon Mineral Springs
- 5. Snowy Plover Habitat
- 6. Spotted Owl Nesting Sites

The Oregon Administrative Rule (OAR 660-16) Goal 5 requires identification of site-specific resources such as important bird habitats to be:

- 1. based on accurate data that include a description or map of the boundaries of the habitat and of the affected impact area, if different; and
- 2. of sufficient detail to enable adequate analysis of the quantity and quality of the resource itself.

OAR 660-16-000(3) states that "the level of detail that is provided will depend on how much information is available or "obtainable"". This rule also notes that:

"The determination of quality requires some consideration of the resource site's relative value, as compared to other examples of the same resource in at least the jurisdiction itself. A determination of quantity requires consideration of the relative abundance of the resource (of any given quality)."

Human activity that may conflict with special bird habitats varies with the unique habitat needs of each species. Sound conservation principles call for the protection of important bird habitat areas except where, allowing conflicting uses is deemed a priority. Statewide Planning Goal #5 and the implementing administrative rule establish a conflict resolution process that must be applied to assess the relative importance of special bird habitats and to decide when conflicting uses should be allowed. As a practical matter, it is virtually impossible to establish a single set of standards capable of providing ample security for each nesting site or habitat area. According to Douglas County's acknowledged Comprehensive Plan:

"In most cases, the best method for providing adequate consideration of special habitat needs in conjunction with human activities is through the development of management plans for each nest site."

However, this is not possible without the detailed site-specific inventory called for by OAR 660-16-000.

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⁶⁸ Editor's Note: Portions of the following narrative are taken verbatim from the acknowledged Douglas County Comprehensive Plan. Coos County gratefully expresses appreciation to Douglas County for use of this material.

Habitat Considerations

1. Bald Eagles

The Bald Eagle is a prominent bird that receives considerable popular attention. Various publications have established recommendations for eagle nest protection. Although these habitat needs are based on available ecological information, it is not always possible to predict the effects of a given amount of disturbance on a particular pair of eagles. Appropriate land use decisions should consider variations in topography and behavior of individual eagles in tailoring recommended management guidelines to local, site-specific conditions.

The U.S. Fish and Wildlife Service has published guidelines for protecting eagle habitat. These suggest that nesting territories be considered in two areas: a primary zone, which is the most critical area around the nest, and a secondary buffer zone to minimize potential disturbance and protect the primary zone. The recommended primary zone should include an area 330 feet from the nest. The size and shape should be adjusted to include frequently used perch trees, alternate nests, flight paths and protection from the wind. The recommended size and shape of the secondary zone is also dependent on topography and visibility from the nest. A minimum boundary of 660 feet from the nest is suggested. The publication further suggests that there should be no timber harvest in the primary zone unless designed to enhance stand characteristics for the benefit of nesting eagles, and that there should be no cutting in the primary zone without a site management plan. The Oregon Forest Practices Act (FPA) adequately protects eagle habitat.

⁶⁹State and federal agencies have listed the Bald Eagle as a threatened species, therefore providing protection.

Nesting Bald Eagles are susceptible to disturbance near their nest and in forage areas from January through August. Removing large trees and estuaries also have a negative impact on Bald Eagles.

Eagles are most vulnerable to disturbance during the first twelve weeks of the critical period. It is desirable to avoid or minimize human activities such as blasting, use of firearms, road construction, camping, timber harvest, etc., in close proximity to nest sites during this critical period.

As indicated previously, the best management approach is one that includes a special management plan for the sensitive habitat area. The plan should consider the role of physical features and human use patterns that are unique to the site (e.g., topography, past land use in the vicinity, remaining habitat, vulnerability to disturbance, the behavior of particular eagles, flight paths, perching trees, vegetation screens, snags, and visibility of feeding areas). Preparation of such a plan, however, requires detailed, site-specific information about the sensitive habitat.

2. Great Blue Herons

Great Blue Herons stand 4 feet tall with a wing span of 70 inches. The species can be distinguished as a heron by its long, unfeathered legs and long, dagger-like bill. They are found throughout the United States and parts of southern Canada.

Great Blue Herons are a colonial nesting species. They are among the earliest birds to breed in the Pacific Northwest, with nest occupancy occurring about the middle of February. Great Blue herons are wariest of intruders at the nest site during pair formation and early stages of incubation. Repeated disturbances may

⁶⁹ Oregon Department of Fish and Wildlife contact (Randy White/Pete Perrin), 1999.

result in nest abandonment. The average departure from the nest from the young is 81 days. The entire nesting cycle roughly ends during the first part of July.

Great Blue Heron rookeries are found in a variety of vegetative types ranging from hard-stem bullrush to Douglas Fir. The shared characteristic of all rookeries is their isolation from human disturbance. The need for isolation of nesting areas and, to a lesser extent, foraging areas sheltered from human disturbance, makes recreational opportunities, timber management and other human activities conflicting uses during nesting period. Timber harvest and associated activities within 660 feet of the outer nests of a heron rookery during breeding season would probably result in its abandonment, according to various studies.

Historically, Great Blue Herons have been thought to take significant numbers of game fish and have been considered economically important because of this predation. However, recent studies indicate their impact on game fish to be exaggerated (Palmer, 1962). Other than their impact on commercial or recreational exploitable fish populations, Great Blue herons have little if any economic importance.

Based on Douglas County's acknowledged comprehensive Plan, recommendations for protecting heron rookeries include:

- 1. Establishment of a buffer area that is 300 feet to 660 feet wide encircling the colony, and prohibiting all conflicting use within this area;
- 2. requiring timber harvest plans to take into consideration windfall of nesting trees and wind damage to young heron and nests;
- 3. restricting timber harvest within a ½ mile of rookeries during the breeding season from February to mid-July.

As with Bald Eagles, the Oregon FPA provides adequate protection for heron rookeries against adverse impacts from timber management practices.

3. Osprey

Ospreys are large fish-eating hawks that are a dark brown color above and mostly pure white below. Osprey nests are the most visible of all important nesting habitat areas. Nest sites are usually found in the tops of snags 100-150 feet high, and located in open areas. Providing Osprey nest sites with some level of protection is partly an effort to maintain suitable nesting trees from a limited supply. The Osprey population seems to be at a healthy level at the date of this revisions (ODFW, 11/99).

Osprey can be conditioned to tolerate minor disturbances if such already exist when nesting begins. According to Pete Perrin, District Wildlife biologist for the Oregon Department of Fish and Wildlife:

"Ospreys are generally fairly tolerant of human activities (where found to exist) at Tenmile (Lake), but to minimize any problems, we have the following suggestions:

- 1. Avoid excessive disturbances (tree falling, blasting, use of heavy equipment) during the months of March, April, and May. During these months, the birds would be most susceptible to such disturbances, which may affect their reproductive success.
- 2. Avoid cutting the osprey nest tree and other trees along the shoreline. These shoreline trees have value as perching sites or nesting trees in the years to come for osprey as well as other fisheries and wildlife values (Pete Perrin, Personal Communication, 12/2/83)."

Again, the Oregon FPA provides adequate protection for Osprey nesting sites against adverse impacts from timber management practices.

4. Band-tailed Pigeon Mineral Springs

Band-tailed Pigeon mineral springs provide nutrients (mineral salts) needed to help sustain the life cycle of pigeons. The sites used by the pigeons are few because they are accustom to using the same sites. ODFW states that trees surrounding the nesting sites are important. Earlier it was thought that the mineral obtained at the sites was important to their reproduction; it is now thought that the mineral may be important to the birds before they migrate. Pigeon numbers are at relatively low levels and there is a concern that the population may never recover due to a general decline in their quality of their habitat (ODFW, 11/99). Large numbers of pigeons congregate at such springs and can become easy prey if hunting occurs in these areas. Thus, pigeon springs are especially popular in the fall when hunting is permitted. Although pigeons are tolerable of human activity, springs would be rendered unusable if all vegetation were to be removed since birds require perch trees and vegetation for protection.

The Oregon FPA provides adequate protection for pigeon mineral springs against adverse impacts from timber management practices.

5. Spotted Owl

The Northern Spotted Owl is a "threatened" species, which prefers old growth forest for nesting. The Oregon Department of Fish and Wildlife "has not conducted a population survey on the Spotted Owl in Coos County on private lands, and(the agency) know(s) of no confirmed Spotted Owl nests on private land (ODFW, personal communication, 3/26/84). Spotted Owls do exist in Coos Comity on federal land, and accordingly are protected by the Bureau of Land Management.

6. Snowy Plover

The Snowy Plover is a small shorebird, which is listed as "threatened" in Oregon. Its federal status is currently undetermined. The North Spit of Coos Bay appears to support the largest Snowy Plover population on the Oregon Coast. These birds are adequately protected by the Coos Bay Estuary Management Plan. Snowy Plovers have also been found along other ocean beaches in the County, but details are not available.

The Snowy Plover is considered sensitive to human disturbance. However, the only plover habitat areas in the county subject to intense development are on the Coos Bay North Spit, and mitigation will provide habitat for that lost to development.

Identification of Sites and Important Habitat Areas

Extremely general locations of nesting sites and habitat areas were first mapped at the scale of inch equals one mile on the map entitled: "Fish and Wildlife Habitats - Map I" in the July 1980 draft Coos County Comprehensive Plan. This extremely general information was provided by the Oregon Department of Fish and Wildlife before the Goal 5 Administrative Rule was adopted by LCDC in September of 1981. One of the chief objectives of the administrative rule was to provide local government, agencies, timber companies and citizens with guidance about the specificity of detail needed to comply with Goal 5, and in particular, to put an end to unnecessary and unreasonable regulations and land use restrictions based on overly-general designations of sensitive areas and alleged sites.

Coos County's Comprehensive Plan was adopted in 1983, since the adoption, ODFW has added several habitat sites to the Bald Eagle, Great Blue Heron, Osprey and a couple to the Band-tailed Pigeon Mineral springs table and the map. The table (Table #6) has been revised to show the "area" where the "nesting areas" are located, but not the acres involved.

Table 6 shows the location information provided by ODFW for this revision to comply with Statewide Planning Goal #5.

Table 6

Bird Nesting Sites in Coos County
(Source: Oregon Department of Fish and Wildlife)

	Location			
	Township	Range	Section	Area
Dold Fools Nosts	23S	13W	23	(Tonnila)
Bald Eagle Nests	23S 23S	13 W 11 W	23 05	(Tenmile) (Big Creek)
	23S 23S	11 W 12W	21	(Willow Point)
	23S 24S	12W 12W	04	(Palouse)
	24S 24S	12 W 13 W	36	(Mettman)
	24S 25S	13W 11W	29	(Bessy Cr.)
	25S 25S	11W 11W	33	(Dellwood)
	25S 25S	11W 11W	22	(Rachel Cr.)
	25S 25S	11W 11W	32	(Morgan Ridge)
	26S	11 W 14W	32 14	(So. Slough)
	20S 27S	14 W	09	(So. Slough)
	28S	10W	09	(Brewster Gorge)
	31S	10W 12W	16	(Baker Creek)
	29S	14W	31	(Twomile Creek)
	28S	14W	11	(Randolph)
	203	14 **	11	(Kandorpii)
Great Blue Heron	24S	13W	27	SW 1/4
Colonies	25S	14W	24	SE 1/4
	23S	13W	26	(Saunders Lake)
	24S	13W	23	(North Bay)
	25S	11W	15	(Weyerhaeuser)
	25S	12W	31	NW 1/4 (Catching Slough)
	25S	14W	24	(North Spit)
	26S	14W	11	(So. Slough)
	25S	13W	24	
	26S	14W	14	NE 1/4, SE 1/4
	27S	14W	35	SE ½, NW ¼, (Sevenmile)
	26S	14W	14	NW 1/4
	30S	15W	15	(Muddy Lake)
	23S	12W	28	(Templeton Arm)

		Lo	cation	
	Township	Range	Section	Area
Osmani Nasta	225	1000	05	NIW/ 1/
Osprey Nests	23S	12W	05	NW ¹ / ₄
	23S	12W	06	SW 1/4
	23S	12W	04	SE 1/4
	23S	12W	04	SE 1/4
	23S	12W	04	SE ¼
	23S	12W	10	NW ¼
	23S	12W	09	NW, NE 1/4
	23S	12W	09	NW ¹ / ₄
	23S	12W	09	NW, SW 1/4
	23S	12W	09	NW, SE ¹ / ₄
	23S	12W	08	SE ¼
	23S	12W	09	SW ¹ / ₄
	23S	12W	05	NE, SE ¹ / ₄
	23S	12W	05	SE ½
	23S	12W	17	SW 1/4
	23S	12W	04	SW 1/4
	23S	12W	09	NW, NE ¹ / ₄
	23S	12W	09	SW 1/4
	23S	12W	22	SW 1/4
	23S	12W	08	SW 1/4
	23S	12W	16	NW 1/4
	23S	12W	19	NE 1/4
	23S	12W	19	SW 1/4
	23S	12W	20	NW 1/4
	23S	12W	20	NW, SW 1/4
	23S	12W	20	SE 1/4
	23S	12W	20	NE, SE ¹ / ₄
	23S	12W	29	NW, SW 1/4
	23S	12W	16	SW 1/4
	23S	12W	21	NE, SE ¼
	23S	12W	21	NE 1/4
	23S	12W	22	SW, NW 1/4
	23S	12W	27	NW 1/4
	23S	12W	28	NW, NE 1/4
	23S	12W	29	NW 1/4
	24S	13W	22	NW 1/4
	30S	15W	11	(Muddy Lake)
	29S	15W	36	(Laurel Lake)
	29S	15W	13	(Bradley Lake)
	29S	14W	08	(Johnson Creek)
	28S	13W	23	(Johnson Pond)
	28S	14W	17	(Bandon Bridge)
	28S	14W	05	(Fahy Lake)
	27S	14W	20	(Whiskey Run)
	28S	14W	09	(Prosper)
	27S	14W 13W	29	(Foster)
	26S	13 W 14W	01	(Tarheel)
	203	14 44	UI	(Tarricer)

	Location			
	Township	Range	Section	Area
	25S	13W	29	(Spaw Blvd.)
	25S	12W	30	(Cooston)
	25S	13W	14	(North Bend)
	25S	12W	30	(Sause Brothers)
	25S	13W	15	(Coast Guard)
	25S	12W	29	(Starkey)
	23S	13W	14	(Spinreel)
	23S	12W	06	(Eel Lake)
	32S	11 W	08	(So. Fork Coquille)
	33S	11 W	09	(Squaw Lake)
Band-Tailed Pigeon	24S	13W	24&25	(Haynes)
Mineral Springs	25S	13W	24	(Cooston)
	26S	13W	01	
	28S	14W	10	(Prosper)
	29S	11 W	26	
	29S	11W	35	(Blueside)
	29S	11W	36	(Rock Quarry)
Snowy Plover Habitat	None Identi	fied		
Spotted Owl Nests	None Identi	fied on priva	ate land	

Determination of Inventory Adequacy

OAR 660-16-000 sets forth inventory requirements, which call for detailed, site-specific information. Pursuant to OAR 660-16-000(5), local government is required to make one of three choices regarding the (i) <u>adequacy</u> of the inventory information collected and analyzed, and (ii) the relative significance of the Goal 5 resource under consideration. The three choices are:

- 1. Do not include the resource site on the official inventory because, "based on information that is available on location, quality and quantity, the ... resource site is not important enough to warrant inclusion on the plan inventory [OAR 660-16-000(5)(a)];" or
- 2. Delay the Goal 5 process because "when some information is available, indicating the possible existence of a resource site, but that information is not adequate to identify with particularity the location, quality and quantity of the resource site, the local government should only include the site on the comprehensive plan inventory as a special category" without proceeding through Goal 5 process until "adequate information is available [OAR 660-16-000(5)(b)];" or
- 3. Include the resource site on the official inventory because adequate "information is available on location, quality and quantity, and the local government has determined a site to be significant or important as a result of the data collection and analysis process [OAR 660-16-000(5)(c)]."

Acknowledgement of Coos County's Comprehensive Plan occurred in 1983 with the information of bird habitat sites (Table 6) from ODFW. The County requested updated information from ODFW regarding

bird habitat sites for the County's periodic review. ODFW supplied the County with new information and additional bird habitat sites as shown in Table 6.

Information obtained from ODFW shows additional sites with the location (Township, Range, Section) and the area (i.e., Rachel Creek, Twomile Creek). Additional bird sites for the Bald Eagle was increased by 12 sites; Great Blue Heron Rookeries increased by 7 sites; Osprey increased by 21 sites; and the Band-Tailed Pigeon mineral springs increased by 2 sites.

According to the ODFW information, the Great Blue Heron-Rookery and the Osprey sites are at a healthy level; whereas the Bald Eagle is considered to be a threatened species and the Band-Tailed Pigeon population is at relatively low levels, due to a general decline in the quality of their habitat.

ODFW provided the County with information and narrative to show the location, quality and quantity of the bird habitats without providing the exact locations, which could be a detriment to the habitats survival.

Assessment of Quantity/Quality of "5c" Bird Sites

Bald Eagle Nest Sites

- 1. T.23S, R. 13W, Sec. 23, NE 1/4 of SE 1/4 and SE 1/4 of SE 1/4 (TL 800, 900, and 1300)
- 2. T.24S, R.13W, Sec. 36, TL 100 (portion on SW \(^1\)4 only) (Mettman)
- 3. T.27S, R. 13W, Sec. 9, TL 500
- 4. T.23S, R. 11W, Sec. 05 (Big Creek)
- 5. T.23S, R.12W, Sec.21 (Willow Point)
- 6. T.24S, R.12W, Sec.04 (Palouse)
- 7. T.25S, R.11W, Sec.29 (Bessy Cr.)
- 8. T.25S, R.11W, Sec.33 (Dellwood)
- 9. T.25S, R.11W, Sec.22 (Rachel Cr.)
- 10. T.25S, R.11W, Sec.32 (Morgan Ridge)
- 11. T.26S, R.14W, Sec. 14 (So. Slough)
- 12. T.27S, R.13W, Sec.09
- 13. T.28S, R.10W, Sec.09 (Brewster Gorge)
- 14. T.31S, R.12W, Sec. 16 (Baker Creek)
- 15. T.29S, R.14W, Sec.31 (Twomile Creek)
- 16. T.28S, R.14W, Sec. 11 (Randolph)

Blue Heron Sites (Rookeries)

- 1. T.27S, R.14W, Sec. 35, TL1700 (Sevennile)
- 2. T.23S, R.13W, Sec.26 (Saunders Lake)
- 3. T.24S, R.13W, Sec.23 (North Bay)
- 4. T.25S, R.11W, Sec. 15 (Weyerhauser)
- 5. T.25S, R.12W, Sec.31 NW 1/4 (Catching Slough)
- 6. T.25S, R.14W, Sec.24 (North Spit)
- 7. T.26S, R.14W, Sec. 11 (So. Slough)
- 8. T.25S, R.13W, Sec.24
- 9. T.26S, R.14W, Sec. 14 NE 1/4, SE 1/4
- 10. T.26S, R.14W, Sec. 14 NW 1/4
- 11. T.30S, R.15W, Sec. 15 (Muddy Lake)
- 12. T.23S, R.12W, Sec.28 (Templeton Arm)

Band-Tailed Pigeon Mineral Springs

- 1. T.28S, R.14W, Sec. 10, TL 100, 700 and 800 (Prosper)
- 2. T.24S, R. 13W, Sec.24&25 (Haynes)
- 3. T.25S, R.13W, Sec.24 (Cooston)
- 4. T.26S, R.13W, Sec.01
- 5. T.29S, R.11W, Sec.26
- 6. T.29S, R.11W, Sec.35 (Blueslide)
- 7. T.29S, R. 11W, Sec.36 (Rock Quarry)

Quality: The quality of these sites are current nesting sites indicating the acceptable quality of the habitat area.

Quantity: Each inventoried area contains one or more nesting sites. The actual impacted areas vary with the type of bird and characteristics of the site. The exact determination of the impacted area is identified above for each type of bird habitat.

Potential Conflicting Uses for "5c" Bird Sites

Pursuant to OAR 660-16-005, potential conflicting uses are identified for the "5c" bird sites.

The "5c" sites are present in the following zoning districts:

RR-5 (Rural Residential-5)

IND (Industrial) C-1 (Commercial-1) REC (Recreation)

BDR (Bandon Dunes Resort)

F (Forest)

EFU (Exclusive Farm Use)

CREMP-AG (Coquille River Estuary Plan)

CBEMP (Coos Bay Estuary Management Plan)

Some resource uses, as well as non-resource uses, were identified as having potential conflicts with these habitat areas. In many cases, mitigation could be provided to allow the use and still preserve the habitat. The three major areas of conflict entered on timber management (especially harvesting and road construction), recreation, industry, commercial uses and residential development. To comply with Goal #5, the County finds uses and activities in the listed zoning districts (except grazing) to potentially cause conflicting impacts to the "5c" bird habitats identified. An assessment of these potential impacts follows.

Assessment of the Economic, Social Environmental and Energy Consequences of Conserving "5c" Bird Habitats

OAR 660-16-005(2) requires an assessment of the economic, social, environmental and energy (ESEE) consequences of the conflicting uses. This section assesses possible consequences.

1. Economic consequences: The major economic impact is associated with timber harvesting or management. If no timber harvest were permitted within the identified habitat areas, a significant amount of merchantable timber would be removed from the timber supply base. The wood products industry in the 1980's took a nose-dive with the decline of demand in the national economy. Based on the lack of demand for wood products, has caused a decline in timber harvesting and the building of roads. Because of this decrease in timber harvesting, disturbance of bird sites has diminished. The reduction in timber harvesting and wood products did increase the unemployment rate and force closure of several mills. Even though there has been a decline in timber harvesting and demands of wood products, there still remains a need for wood products, thus requiring timber harvest.

By not allowing timber harvesting, wood products would not be available and road construction would not be necessary. If road construction were not permitted, it would affect the levels of timber harvest and require alternate logging systems, which would increase logging cost, and perhaps making harvesting of the trees uneconomical.

Good quality rock and other minerals are often difficult to locate. Road construction costs would be greatly increased if rock were to be transported from other areas. A major factor in rock cost is transportation; this could cause a decline in employment within this particular sector.

Recreational facilities are abundant throughout the county. There may be a small loss in facilities but generally there would be no loss to the tourist industry due to lack of facilities. There would

be economic loss to the particular owner of a parcel if his intentions were for commercial recreational use.

By permitting these uses, minimal economic impact would result by not preserving the nesting site.

There is a negative economic consequence of applying regulation to single-family residences, industry, commercial, or similar development, which are generally borne by individuals. In some instances, this can become an extreme financial hardship to an individual.

2. Social consequences: The negative social consequences of limiting residential development in habitat areas means the desire to live in rural areas for owners of affected parcels may remain unsatisfied. If the areas could not be harvested, the decline in production would contribute to shortages of building materials. The increased unemployment may add to the unstable community structure requiring workers to seek employment out of county, disrupting social structures as well.

Recreational opportunities as far as camping, hunting, off-road vehicles, etc., would e channeled to other areas. Actions to limit uses or to allow uses will act as a catalyst for conflict over management practices of causing community polarization.

3. Environmental consequences: The environmental consequences of limiting development in nesting habitat areas are positive. Opportunities for birds to nest in a habitat without repeated interference or disturbances from man should be a positive consequence. Permitted timber harvesting would remove cover and change the major vegetation. This could destroy nesting sites and roosting trees, and generally cause disturbance, which would cause birds to leave an area. These impacts can be mitigated by regulating when harvesting occurs (during non-nesting times) and establishing cut zones and individual management plans. Other techniques, such as selective logging and leaving snags or building platforms can often mitigate some negative impacts of logging. There would be h- necessity to build roads into the area. Road construction sometimes causes major disturbance to birds and creates access to nesting sites which can increase conflicts associated with humans such as vandalism, fires, loud noises and gunfire.

The limitation on non-resource development such as single-family dwellings would limit disturbances and not introduce a use, which may have a negative effect on a nesting site. The limiting of recreation would not encourage human intrusion, again minimizing those types of conflicts. Vehicular noise would be limited by no road building but would hamper fire-fighting access.

4. <u>Energy consequences</u>: The energy consequences of not allowing conflicting uses are minimal. There would be a savings in fuel consumption by not logging, building roads or maintaining roads.

Based on the results of the ESEE analysis (above), Coos County determines that it would be detrimental to prohibit the identified conflicting uses, particularly when considering the economic impacts that would result. It is appropriate to allow conflicting use within a reasonable proximity (to be determined on a case-by-case basis at the time a use is specifically proposed) of a nest site, but at the same time protecting the nest site through appropriate methods and working with ODFW.

"Program to Achieve the Goal" for "5c" Bird Sites

Pursuant to OAR 660-16-010, Coos County's "program to achieve the goal" consists of pertinent policies in this comprehensive plan, together with specific implementation provisions in the Coos County Zoning and Land Development Ordinance.

Miscellaneous Wildlife

Beaver, muskrat, otter, raccoon, mink, squirrel, skunk, civet cat, opossum, bobcat, coyote, gray fox and brush rabbit are among the inland mammals found in Coos County. Some estimated populations are listed below:

Table 6 Estimated populations of selected mammals in Coos County in 1976.

Species	<u>Population</u>
Muskrat	1,650
Beaver	1,800
River Otter	500
Mink	1,250
Raccoon	10,900
Coyote	2,750
Gray Fox	1,100
Brush rabbits	32,500
Silver gray squirrel	4,655

Endangered Species and Sensitive Habitats Summary

Endangered and rare species and species of special concern are listed in Appendix 5. These include the bald eagle, osprey, snowy plover and white footed vole. As identified by ODFW (see Appendix 3), sensitive habitats in the non-estuarine portions of the County include the following:

Sensitive big game range
Waterfowl habitat (wetlands)
Riparian vegetation
Band-Tailed Pigeon mineral springs
Snowy plover nesting areas
Spotted owl habitat
Salmonid spawning and rearing areas
Bald Eagle

Sensitive habitats in estuarine areas are dealt with in the estuary management plans.

Fish and Wildlife Values

Sport Fisheries

The sport fisheries play an important part in the recreation industry of the County. Gross expenditures by anglers amounted to about three million dollars in 1970. Table R-38, Section 4.8 in this document, breaks down gross expenditures by species and area harvested.

Commercial Fisheries

Commercial fishing is one of the few basic industries of the County. The average annual value (at the dock) of fish landed in Coos County is shown in Table 8 below. The impact of these dollars on the economy is considerably greater than these values indicate because of the secondary industries and services they support.

Table 8

Average value of commercial fish landings in Coos County, 1971-1975. 70

<u>Species</u>	Average Value (x \$1,000)
Salmon	2,026
Tuna	880
Groundfish	472
Crab	449
Shrimp	349
All Others	1

Game

Wildlife resources contribute substantially to the recreational opportunities and economy of the County. The table below indicates the estimated annual expenditures by hunters in 1976 in the County.

 $\frac{\text{Table 9}}{\text{Average expenditures on game resources in Coos County, } 1976.}^{71}$

Species	<u>Total Expenditure (\$)</u>
Roosevelt Elk	993,262
Black-tailed Deer	1,888,603
Black Bear	294,823
Pheasant	3,255
Quail	39,807
Grouse	42,197
Doves	1,115
Band-tailed Pigeon	78,693
Silver Gray Squirrel	18,242
Geese	18,247
Ducks	180,208
Snipe	30,156
Coots	34,401
	\$3,623,009

⁷⁰ Coos-Curry-Douglas Economic Improvement Association, Comprehensive Economic Development Strategy, 1979-80 (1979), p. VII-27.

⁷¹ Hines and Perrin, p. 2, 4 & 5.

The furbearing animals of the County are also a basic resource. Table 10 shows the number of pelts taken in 1976-1977, the average price per pelt, and their total value.

Table 10

Value of Raw Furs taken in Coos County in 1976-1977.⁷²

Species	Number of pelts taken in Coos County	Average price per pelt 1976-77 (\$)	Total Value (\$)
Species	in Coos County	1970-77 (φ)	Total value (\$)
Beaver	511	18.04	9,218.44
Otter	27	56.90	1,536.30
Mink	30	10.20	306.00
Muskrat	455	4.38	1,992.90
Raccoon	257	20.69	5,317.33
Skunk	3	3.26	9.78
Civit Cat	30	4.8	144.00
Opossum	2	2.14	4.28
Bobcat	85	103.21	8,772.85
Coyote	45	41.22	1854.90
Total			\$29,156.78

Other Values

The fish and wildlife resources of the County and their habitats provide for a diversity of recreational opportunities and aesthetic experiences for residents and non-residents alike. They are part of the attraction of the South Coast, part of the basis for the tourist industry. Recreational uses are both consumptive and non-consumptive. Clamming and crabbing, for instance, are part of the coastal experience enjoyed by vacationers. Nature photography is a popular, and rapidly growing, non-consumptive use of wildlife. Nature study and bird watching are two other examples of wildlife-dependent recreational activities.

Much of the recreational appeal of the south coast is based on its beauty. Protection of habitats on which fish and wildlife depend means preservation of a source of pleasure and satisfaction for County residents as well.

The fish, shellfish and wildlife resources of the County also serve as food resources for County residents, enabling some families to be more economically independent than their gross incomes would see to allow.

Potential Conflicts

Potential conflicts exist between the need (mandate) to protect significant wildlife habitat and certain agricultural practices, industrial land needs and residential development in the County.

Farming is not only compatible with many wildlife values, but it also enhances the habitat value for some species. The major portion of farmland in the County, however was created by diking and draining wetlands. Further draining of wetlands would reduce the availability of a habitat already severely

⁷² Hines and Perrin, p. 6.

impacted by the activities of man. It also could increase the productivity of basting farmland or expand the amount of land in agricultural production, improving by some increment the economic base of the County. At the same time, however, the persistence of flooding during the winter months means that the open agricultural areas would be available for migratory wildfowl use, which offsets the loss of year-round wetlands.

Because of the topography of the County, many of the existing industries have been located on filled wetlands. While wetlands are not generally suitable for such development and while any further development on wetlands would occur at the expense of an already severely impacted habitat type, such development may be considered desirable in the future, because of the lack of suitable land elsewhere in the County or because of the need for waterfront location.

Industrial development can also have impacts beyond the immediate site, for example by degrading water quality or damaging the suitability of nearby nesting sites because of noise. Water quality is regulated by the Department of Environmental Quality (DEQ). No needs for industrial sites adjacent to sensitive habitats such as nesting sites (as identified on the Habitats map) are project for the planning period for non-estuarine portions of the County.

While there appear to be no conflicts with the Rural Housing Exception, ODFW may perceive conflicts with housing development on resource lands in some 'peripheral' areas, depending on the minimum lot size that is established and on whether the demand for homes corresponds to what the minimum lot size allows.

It could be argued that sensitive big game range is already protected by the Forest Lands goal statewide Goal 4) and by existing ownership patterns in the County (35.2% of the county's productive forest land) is in public ownership (see Table 11 below), while an additional 33.4% (40.5% of the productive forest lands) is in forest industry ownership. In other words, about 62.4 of the county is mainly in large holdings and is devoted to commercial forest production which is compatible with big game management. Most of this land will not be available for rural residential or resource related housing development during the planning period.

 $\frac{\text{Table 11}}{\text{Area of commercial forest land by ownership class.}^{73}}$

		% of Commercial	
Ownership	Acres	Forest Lands	% of County
National Forest	64,000	7.6	6.2
Bureau of Land Management	156,000	18.4	15.2
Other Public	78,000	9.2	7.6
Total Public	298,000	35.2	29.0
TOTAL COMMERCIAL FOREST LAND	847,000		

⁷³ Patricia M. Bassett, Timber Resources of Southwest Oregon (U.S.D.A. Forest Service Bulletin, PNW-72, 1977), p. 3.

Potential areas of conflict between proposed rural residential siting in non-estuarine areas and significant wildlife habitats are as follows:

AREA NATURE OF POTENTIAL CONFLICT

Laurel Lake Committed area adjacent to wetland

Round Lake Proposed rural residential area includes wetlands

Bradley Lake Proposed rural residential area adjacent to and including

wetlands

Chrome Lake Proposed rural residential includes wetlands

Croft Lake Committed rural residential area includes wetlands

Tenmile Lakes Committed rural residential areas in vicinity of osprey

nesting sites

Butterfield Lake Committed rural residential area includes wetlands

Fish & Wildlife Habitats

Goal

Coos County shall value its identified significant fish and wildlife habitat and shall strive to protect them where practical.

Plan Implementation Strategy

1. Coos County shall manage its identified significant fish and wildlife habitat areas so as to preserve their existing resource value, except where conflicting uses have been identified and justified based on consideration of the economic, social, environmental and energy consequences of the conflicting uses or where existing uses have been grandfathered.

Where no conflicts have been identified, agriculture, forest, natural resource, or any similar open space zones shall be used to implement the objectives of this strategy. In addition, residential density and other activities shall be restricted as necessary to protect significant habitat value. This strategy considers significant non-estuarine fish and wildlife habitat to include:

- "Sensitive" big game range
- Band-Tailed pigeon mineral springs
- Snowy Plover nesting areas
- Bald Eagle, Osprey and Blue Heron nesting areas
- Spotted owl habitat areas
- Salmonid spawning and rearing areas

This strategy recognizes that habitat preservation is necessary to protect the economic, recreational, aesthetic, and natural values associated with identified significant fish and wildlife habitat areas.

2. Coos County shall manage its riparian vegetation and identified non-agricultural wetland areas so as to preserve their significant habitat value, as well as to protect their hydrologic and water quality benefits. Where such wetlands are identified as suitable for conversion to agricultural use, the economic, social, environmental and energy consequences shall be determined, and programs developed to retain wildlife values, as compatible with agricultural use. This strategy is subordinate to Strategy #4, below. This strategy does not apply to forest management actions, which are regulated by the forest Practices Act This strategy recognizes that protection of riparian vegetation and other wetland areas is essential to preserving the following qualities deriving from these areas:

Natural flood control Flow stabilization of streams and rivers Reduction of sedimentation Improved water quality Environmental diversity
Habitat for fish and wildlife including
fish and wildlife of economic concern
Recreational opportunities
Recharge of aquifers

3. Coos County shall support the efforts of the Oregon Department of Fish and Wildlife to maintain a productive fishery in county streams and lakes.

This strategy recognizes the economic and recreational importance that results from maintaining adequate fish stocks.

- 4. Coos County shall protect for agricultural purposes those land areas currently in agricultural use but defined as "wet meadow" wetland areas by the U.S. Fish and Wildlife Service, and also cranberry bogs, associated sumps and other artificial water bodies. Implementation shall occur through the placement of the plan designation "Agriculture" on such areas. Further, such areas shall be exempt from the provisions of Plan Implementation. This strategy recognizes:
 - i. that agriculture is an important sector of the local economy;
 - ii. that some of the more productive lands in Coos County's limited supply of suitable agricultural lands are such seasonally flooded areas;
 - iii. that designation of these areas for agricultural use is necessary to ensure the continuation of the existing commercial agricultural enterprise; and
 - iv. that the present system of agricultural use in these areas represents a long-standing successful resolution of assumed conflicts between agricultural use and habitat preservation use, because the land is used agriculturally during months when the land is dry and therefore not suitable as wetland habitat, and provides habitat area for migratory wildfowl during the months when the land is flooded and therefore not suitable for most agricultural uses.
- 5. Coos County shall require a location map for any development activity within its regulatory scope that is determined to be within an area identified on the "Special Considerations Map" as containing "5c" bird habitat. This policy applies to those bird habitats listed in Strategy #1 above. The location map shall be submitted to the Oregon Department of Fish and Wildlife requesting an opinion within 10 days as to whether the development is likely to conflict with that wildlife resource, and what safeguards they would recommend to protect it. The County Planning Director shall decide whether a conflict exists; if a conflict exists, the County Planning Director shall

direct the applicant to submit an application addressing ESEE. Once the application has been submitted to the Planning Department, the County Planning Director shall determine the economic, social, environmental and energy consequences from allowing the project and state what actions should be taken to protect that resource in the light of the ODFW recommendation.

This policy recognizes that there are certain important bird nesting sites and habitats which need special protection from conflicting uses, and that such conflicts can be avoided by a review of a location map and response from ODF&W.

$3.5\,$ HISTORICAL, CULTURAL, ARCHAEOLOGICAL RESOURCES, NATURAL AREAS, AND WILDERNESS

Goal Requirements and Definitions

Inventories

Significant Botanical Areas

Significant Archaeological Sites

Historic Sites and Buildings

Geologic Sites

Wilderness Areas

Potential Conflicts

3.5 <u>HISTORICAL & ARCHAEOLOGICAL RESOURCES, NATURAL AREAS AND</u> WILDERNESS

Goal Requirements

Statewide Planning Goal #5 requires protection of natural resources, and conserve scenic and historic areas and open spaces; these include riparian corridors (including water and riparian areas and fish habitats), wetlands, wildlife habitat, federal wild and scenic rivers, state scenic waterways, groundwater resources, approved Oregon Recreational trails, natural areas, wilderness areas, mineral and aggregate resources, energy resources, and cultural areas. The goal also requires that:

Where no conflicting uses for such resources have been identified, such resources shall be managed to preserve their original character. 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.

Relevant also are the following:

Goal 16, which requires that the Comprehensive Plan "maintain where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries;" Goal #17, which requires the protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics.

<u>Natural areas</u> are defined as including "land and water that has substantially retained its natural character, which is an important habitat for plant, animal, or marine life. Such areas are not necessarily completely natural or undisturbed, but can be significant for the study of natural, historical, scientific, or paleontological features, or for the appreciation of natural features."

Historic resources "are those districts, sites, buildings, structures, and artifacts which have a relationship to events or conditions of the human past (see definition for Archaeological Resources)."

Inventories

The archaeological, historical, botanical, and geologic resources of Coos County have been identified on a map at a scale of $\frac{1}{2}$ " = 1 mile and include:

- 1. Areas of botanical interest
- 2. Areas of archaeological sensitivity
- 3. Historic sites and buildings
- 4. Geologic sites
- 5. Wild Rogue Wilderness area

Natural areas of zoological interest are included on the fish and wildlife habitats map. There are no federal wild and scenic waterways and no State scenic waterways in the County. Estuarine areas, coastal islands, and sites within city boundaries are not inventoried in this section.

Significant Botanical Areas

The location of areas of significant botanical interest (see Table 1) is marked on the Botanical Resources map. The mapping symbol shows the <u>general</u> location of the resource. Most of the sites are inventoried by

the Oregon Natural Heritage Program, although three small state parks which were set up to preserve old-growth stands of Myrtle, are also included. All the sites except the Darlingtonia Bog on Yoakum Point are in public ownership, and are therefore adequately protected. The Darlingtonia Bog is within an area proposed for rural residential development. With the exception of this boggy depression, the remainder of the land is considered well-suited to residential use. It is considered that, provided care is taken not to disturb the bog in any way, that rural residential use can be compatible with the continued protection of this resource. However, access for research purposes would be ensured if the site were to be acquired by the Natural Heritage Program or other body. Continued protection could be ensured by requiring a site plan review for any development in the area.

Table 1
Significant Botanical Areas

Map Symbol & Location	Site Name	Description	Land Ownership
A – T. 26, R. 14, S. 2/11	Oregon Institute Marine Biology	Spruce & Alder woods and saltmarsh	University of Oregon (OIMB)
B – T. 26, R. 14, S. 4	Yoakum Point Darlingtonia Bog	Darlingtonia (threatened species) coastal bog, [Listed as a research natural areaneed in Dyrness, Franklin et. al., 'Research Natural Area Needs in the Pacific Northwest' (USFS, 1975)]	Private
C – T. 27, R. 10, S. 3	Maria C. Jackson State Park	Myrtle Grove, (Old growth)	Oregon State Dept. of Transportation
D – T. 24, R. 11, S. 34	Millicoma Myrtle Grove State Park	Myrtle Grove, (Old growth)	Coos County Parks
E – T. 30, R. 12, S. 22	Coquille Myrtle Grove State Park	Myrtle Grove, (Old growth)	Oregon State Dept. of Transportation
F – T. 27, R. 14, S. 31/32	Bullards Beach	Beach, dune & shorepine forest; rare plant (phacelia argentea); snowy plover nesting site (rare species)	Oregon State Dept. of Transportation
G – T. 27, R. 10, S. 17/20	Cherry Creek Research Natural Area	Virgin old-growth douglas fir and hemlock, Northern spotted owl (threatened species)	Bureau of Land Management

Volume I, Part 2 Page 125

H – T. 32, R. 12, S. 24/34-36	Port Orford Cedar Research Natural	Virgin old-growth Port Orford Cedar and Douglas Fir on a geologically diverse site	U.S. Forest Service
I – T. 33, R. 11, S. 16- 18/20/21	Coquille River Falls Research Natural	Virgin, Old-growth Port Orford Cedar Douglas Fir, red tree vole	U.S. Forest Service

Source: (A, B, F-I) Oregon Natural Heritage Program

Significant Archaeological Sites

The mapped archaeological sites were provided by the Coquille Indian Tribe and the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians.

The previous information was gathered from the Oregon Archaeological Survey and the Oregon Coastal Conservation and Development Commission.

Information which has been gathered by the two (2) tribes adds additional sites throughout the county (this includes the two estuaries).

There are numerous sites, which contain evidence of the original Native inhabitants of the area. These sites include villages, burials, fish weirs, middens, camp sites, and other places of pre-historic human activity. Because native peoples were heavily dependent on the abundant resources provided by the estuary environment, these places of human use and habitation were frequently and naturally located along the shores of Coos Bay, its tributaries, and adjacent upland areas. These sites exist in a variety of conditions, from substantially undisturbed to completely obliterated.

Information about the specific location and characteristics of these archaeological sites are derived from the records of the State Historic Preservation Office (SHPO), and from the records and archives of the two federally recognized Indian tribes in Coos County; the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians; and the Coquille Indian Tribe. For reasons of site protection and consistency with Oregon Statutes, the exact location and characteristics of these sites are not made available in text or on the Special Consideration map.

Recorded sites have an assigned number by SHPO, who maintains a permanent record (site form) that details the type, characteristics, and location of each site. "Unrecorded sites" are sites that have not yet been assigned a SHPO number, but that have been otherwise authenticated by reliable persons and/or more than one source; and for which a temporary site form has been completed.

There has been no comprehensive study conducted to ascertain the exact number and location of all archaeological sites within the County and its estuaries. However, several investigations have been conducted by universities, professional consulting archaeologists, and the Tribes themselves to indicate that pre-historic human occupation and use of the estuary environment was extensive; occurring virtually everywhere along the shores of the bay. At the time of this revision (October, 2000) 177 archaeological sites have been located.

Archaeological sites are to be protected according to Goal #5, "Natural Resources, Scenic and Historic Areas and Open Spaces". Archaeological sites are also protected under several other federal and state statutes, include ORS 97.740 (Protection of Indian Graves); and ORS 358.905-.955 (Archaeological

Objects and Sites). ORS 358.920 (Prohibited Conduct) states: "A person may not excavate, injure, destroy, or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon unless that activity is authorized by a permit issued under ORS 390 235 (Removal of Historical and Other Valuable Materials). See "Policies" for additional guidance on protecting archaeological sites. Archaeological sites can be generally characterized into the following types:

- Village Site: a place of permanent and extended human habitation, either seasonally or year-round.
- Burial site: a place or cemetery where pre-historic or historic human remains are buried.
- Fish Weir: a place where weir stakes remnant basket and traps, stone tools, and worked stone are found; usually in the inter-tidal zone.
- Midden: a place having an accumulation of broken shell, fish bones, faunal remains, worked stone, burned rock, and flaked stone or stone fragments; usually associated to a layer of organic soil.
- Camp site: a place where some evidence of pre-historic human use or occupation is present but not in sufficient amount to determine the exact nature or extent of use of the site.

Archaeological Inventory

The following table lists archaeological sites in the county according to the township, range and section number of the map. As this information is being updated and included in the Plan, the Coquille Indian Tribe as well as the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians continue to gather and discover new areas of tribal sites, which will be included in the plans as new information is available.

Historic Sites and Buildings

The historic sites and buildings of Coos County have been identified in the Oregon Coastal Conservation and Development Commission's <u>Historical and Archaeological Site Inventory</u> and the <u>Statewide Inventory of Historic Sites and Buildings</u> by Dr. Stephen Dow Beckham for the Department of Transportation. These include cabins, homes, mine sites, mill sites, battle sites, churches, schoolhouses, lighthouses, a covered bridge, and a coastal island that once provided refuge to women of the Coos Indian nation. Buildings listed in the National Register of Historic Places include the lighthouses at Bandon and Cape Arago. A more detailed explanation of these historical sites and buildings is provided in the State's inventory. The table below lists the identified historical sites by the number assigned to them on the map. As with archaeological sites, a site plan review might be required in the event that development is proposed in any of these areas.

Geologic Sites

Geologic sites inventoried by the Oregon Natural Heritage Program include the Umpqua Dunes, Fossil Point, Golden and Silver Falls State Park and Shore Acres State Park. The mapping symbol used should not be confused with the similar but smaller symbol used on the background map to indicate fire lookouts.

The Umpqua Dunes Scenic Area north of Tenmile Creek is an area of open, active dunes within the Oregon Dunes National Recreation Area which the U.S. Forest Service has designated as a Special Interest Area.

The rocks at Fossil Point were deposited as sediment during the Pliocene times (roughly two to nine million years ago) and contain a high concentration of fossils, including clams, snails and bones of sea lions, seals and whales.

Gold and Silver Falls is a scenic falls of geologic interest on a tributary of the East Fork Millicoma (Glenn Creek).

There is a fine exposure of Coaledo sandstone at Shore Acre Park, which shows the tilted beds, worn by the waves, and a marine terrace.

Table 2 Historical Sites

Map	Historical Site	Description
1	McFarlin Cranberry Bog	Site of the first commercial planting and harvesting of cranberries in the State.
2	Camp Castaway, U.S. Life-Service (Saving) Station	Site of an encampment of ship-wrecked men from the U.S.S. Captain Lincoln, beached on January 2, 1852.
3	Libby Coal Mines	Opened in 1855, the mines were in continuous production until World War I. Chinese, black, Irish and Italian laborers lived and worked at Libby. San Francisco was the destination of most of the coal.
4	U.S. Life Savings Station Boathouse	Built in 1916.
5	Cape Arago Lighthouse	Remains of the original lighthouse, an octagonal wrought-iron tower later bricked in, still remain on the island. It began operation in 1866. The present lighthouse was built in 1934.
6	Squaw Island	When soldiers came in the late 1850's to drive the Coos Indians north, women and children hid on Squaw Island until soldiers and agents left the area.
7	Malcolm Forbes Balloon Trek	Wooden plaque commemorating the first transcontinental crossing of the U.S. by a hot-air balloon. Flight began at Sunset Bay Park on October 4, 1973.
8	Shore Acres Vo	Sold by its pioneer settler owner to Coos Bay lumberman and entrepreneur Louis J. Simpson in 1905. Shore Acres became the site of the largest mansion in Southern Oregon. The estate included tennis courts, a lume I, Part 2

Page 128

Map	Historical Site	Description
		formal garden and a dairy ranch.
9	Cape Arago	Prominent headland sighted in 1700s by Captain James Cook. Coos Indians midden site.
10	Southport Coal Mine	A major coal extraction portal. Opened in 1875, the mine was the last commercial coal producer in the Coos Bay Estuary.
11	Old Stage Station, Sumner	
12	Overland Landmark	Commemorates old trail between Isthmus Slough and Beaver Slough; location of Isthmus Transit Railroad in the 1870's.
13	Beaver Hill Town Site	Once the home of 300 residents and site of a school, hospital and a major industry with rail connections, the town has totally disappeared since closure of Beaver Hill Coal Mine in 1923.
14	Whiskey Run/Old Randolph	Site of one of the richest beach sand mines of the 1850's. Miners built the boom town of Randolph about mile south of Whiskey Run Creek.
15	Russell House	Two-story, wood-frame building erected in 1913 by Herman Hongell for Horace Russell and his wife.
16	Riverton Coal Mine	These mines produced coal from the 1890's to the 1940's.
17	Parker Landmark	Commemorates first harbor work on Pacific Coast (1875 diversion of the entrance of the Coquille River) and first steam sawmill and steam tug on the Coquille, works of Captain Judah Parker.
18	Pederson House, Prosper School	Prosper once supported a sawmill, shipyards, and a salmon fishing-canning industry. Pederson House was built in 1887 and the school in about 1905.
19	Edward Fahy Home and Sawmill Site	Site of the first mill in Coos County which began cutting lumber in 1853 for the mining town of Old Randolph and the mines at Whiskey Run.
20	Hamblock Cemetery	Dates from 1874.
21	Bandon Lighthouse	Increasing commerce on the Coquille River in the 1880's led to construction of the lighthouse in 1896. Abandoned in the 1950's, the building is in poor repair.
22		Built by a son and grandson of a North Carolinian lume I, Part 2 Page 129

Map	Historical Site	Description
	Barn	Confederate Army lieutenant who settled in Lee Valley in 1868.
23	Abernathy House	Edward Abernathy constructed this 40-50 room structure which was to have been a hotel between 1913 and 1915 in anticipation that the Coos Bay Wagon Road would become the major route of travel between Roseburg and Coos Bay. Construction of Highway 42 dashed his hopes and the building was never completed.
24	Young House	Built in the 1880's by Frank Young about 150 yards downstream from the Minard sawmill and grist mill.
25	Gearhart House	A 1 $\frac{1}{2}$ story wood-frame house constructed about 1900 by Peter Folsom.
26	Pleasant Hill School	A small, one-room, one-teacher school that served grades one through eight.
27	Anderson House	Built in 1926 on the site of the Leason L. Harman Century Farm, settled in 1873 by a teacher and farmer from North Carolina.
28	Bald Hill School	A one-room, wood-frame building with an open belfry; once owned and operated by School District.
29	Hoffman Ferry Site, Coquille Forks Battle Site	On November 22, 1851, the U.S. Army engaged the Micikqwtmetunne Indians in a fierce battle as punishment for the September massacre of the T-vault party. Fifteen Indians and two privates were killed. In 1855 Abraham Hoffman settled at the site and operated a ferry.
30	Fort Kitchen Site	
31	Henry Hermann House	One of the oldest homes constructed by whites in the Coquille Valley, the building was erected 1861-62 by the leader of a group of German immigrants whose settlement became known as the "Baltimore Colony".
32	W.P. Hermann House	Built about 1878 of Port Orford Cedar by the son of Henry Hermann.
33	Belieu House	
34	Sandy Creek Covered Bridge – Fetter House	Sixty feet long, the bridge was once the main bridge for Highway 42 over Sandy Creek.
35	Fort Rowland Site	lume I, Part 2

Page 130

Map	Historical Site	Description
36	Johnson Creek Mining Disaster	
37	Cedar Swamp Hide – Hunters Camp Site	

Wilderness Areas

A very small portion of the county on the Rogue River side of Panther Ridge is included in the Wild Rogue Wilderness Area in which all development is precluded.

Potential Conflicts

Rural residential development is proposed in the general vicinity of archaeological sites and historical sites in a number of places. (See the Rural Residential Exception maps for location of areas committed to rural residential development and additional areas designated as Rural residential in the comprehensive plan.) Archaeological sites within urban growth areas and near industrial sites have also been identified.

Many of these apparent conflicts may not be conflicts at all, since the actual location of the site or sites may be outside of committed or planned rural residential areas, the urban growth area or the industrial site. As indicated above, the locations of archaeological sites are given only in a very general way in order to discourage destruction of these sites by souvenir-hunters. A more specific identification of conflicting areas would be counter-productive and would undermine the intent of Goal 5.

The economic, social, environmental and energy impacts of the planned rural residential development are addressed in general in Section 4.5 (housing). Weighing these impacts on a particular archaeological or historical site might be done on a case-by-case basis, through a site plan review, or by requiring documented evidence of no impact.

Table 3

Potential Conflicts with Historical and Archaeological Sites

		Potentially Conflicting Use			g Use*
Map Designation Site No.	Location	UGA	CA	PRR	Ind
1	Hauser			X	
35-CS-25	N. of McCoullough Bridge		X		
35-CS-25	Jordan Cove				X
35-CS-31, 32	East Bay/Cooston		X	X	
35-CS-68	Coos River (near confluence of Millicoma		X		
	and S. Fork Coos)		Λ		
Arch. (no #)	N. of Allegany		X	X	
35-CS-12	Near Fossil Point	X			X
35-CS-34, 11	Lighthouse Beach		X		
35-CS-65	Agate Beach		X		
35-CS-62, 20, 19	Fivemile Point			X	
35-CS-33	Entrance of Coos River into Coos Bay		X		X

Volume I, Part 2 Page 131

		Potentially Conflicting Use*			g Use*
Map Designation Site No.	Location	UGA	CA	PRR	Ind
Arch. (no #)	Dellwood				X
3	Libby	X			
10	Southport		X ?		X ?
35-CS-51, 52	NE of Fairview		X	X	
35-CS-47, 49	Fairview		X	X	
35-CS-41, 48, 50, 79	S. of Fairview			X	
35-CS-17, 61	Randolph			X	
35-CS-1	Prosper & W.		X		X
16	Riverton		X		X
35-CS-45, 60, 9, 8	Bandon to S. of mouth of Crooked Creek	X		X	
Arch. (no #)	Myrtle Point	X		X	X
Arch. (no #)	Hoffman Wayside			X	
Arch. (no #)	Bridge		X	X	
Arch. (no #)	E. of Bridge		X		
35-CS-82	Powers	X		X	
35-CS-81	Powers			X	X

UGA = Urban Growth Area

CA = Area committed to rural residential development (see Section 4)
PRR = Planned rural residential (see Section 4.5)
Ind = Existing or potential industrial site (see Section 4.4)

3.6 WATER RESOURCES

Goal Requirements and Agency Responsibilities

Watershed Management

Municipal Water Resources

Potential Impoundment Sites

Conflicting Uses

Resolving Conflicts

3.6 WATER RESOURCES

Goal Requirements and Agency Responsibilities

Statewide Planning Goal 5 requires protection of natural resources, including watersheds and groundwater resources. The goal also requires 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" of resource protection.

Because management of watersheds and groundwater resources affects streamflow, lake levels and overall water quality, the Goal 5 requirement to protect fish "areas and habitats" and the Goal 17 (Coastal Shorelands) stipulations to minimize sedimentation and to reduce "the adverse effects upon water quality and fish ... habitat" are also relevant.

The Oregon Water Resources Department has primary responsibility for managing the water resources of the state. The State Water Resources Board develops and administers state water resource policies. In addition to maintaining streamflow records, well logs and water rights records, the department inventories water resources and periodically reviews sets and updates policies to meet the State's water needs.

The Oregon Department of Fish & Wildlife, in carrying out its statutory responsibility to manage fish resources, has developed minimum streamflow recommendations for several streams within the County. These recommendations are presented to the Water Policy Review Board during development of basin programs.

The State Forestry Department administers the Forest Practices Act.

Watershed Management

All of the area which drains into a particular stream or lake is termed watershed. The nature of streamflow, the quality of the water and the amount of water stored underground are all affected by how the watershed is managed.

The characteristics of watersheds are determined mainly by soils, topography, vegetation cover and the amount of development. In Coos County, upland soils are thin and relatively impermeable; that is, they absorb water slowly and have a low capacity for storing water. Upland topography is generally steep. As a result, runoff is naturally high, which causes erosion and limits the amount of water reaching the water table. Vegetation and the organic debris that accumulates beneath it increase the ability of the soil to absorb water and increase the rate of formation of soils. In addition, they physically slow the velocity of runoff water: the longer the water contacts the soil, the greater the chance of absorption. Vegetation further protects soil from erosion by breaking the impact of the rain. Peak stream flows following storms are lower and summer flows, which depend heavily on groundwater, are greater in vegetated watersheds. Development in watersheds increases runoff and decreases groundwater supplies and summer stream flows because it removes areas of the ground from exposure to rainfall and because vegetation is often cleared.

In addition, increased development in some rural watersheds can lower the amount of water available for existing homes by putting greater demands on decreasing groundwater supplies. It is difficult, without the benefit of technical studies, to know when the critical level has been reached in development of a particular watershed until wells and springs start going dry.

Permitting development in municipal watersheds can lead to a reduction in municipal water supply and in water quality. Development usually causes increased sedimentation, which can make water treatment more expensive. Sedimentation also lowers the storage capacity and lifetime of lakes and reservoirs.

Proper watershed maintenance also lessens flooding in streams following storms, helps to minimize soil and streambank erosion, maintains water quality for downstream users, decreases the probability of landslides and slumping, maximizes summer streamflow, and maintains the good water quality necessary for fish populations. Current management controls are limited to the Forest Practices Act and County and municipal zoning except in the cases of a few municipal watersheds: much of the Pony Creek watershed, for instance, is owned and managed by the Coos Bay-North Bend Water Board, and the City of Bandon has acquired about 350 acres of the Ferry and Geiger Creek watersheds.

Groundwater Resources

Groundwater availability in the County has not been comprehensively mapped but is generally lowest in the uplands where a thin mantle of soil overlays bedrock. A higher yield, up to 50 gallons per minute, can be expected in the marine and river terraces. The dunes aquifers are the areas of highest estimated yield, up to several hundred gallons per minute, and the approximate extent of these has been indicated in the mapping. Also identified are the existing wells in the Coos-Umpqua Dune Sheet north of Coos Bay. Quality of groundwater in the County is generally good, though high in iron and manganese, and of moderate hardness.

Municipal Water Resources

The water resources of Coos County have been identified on a map at a scale of $\frac{1}{2}$ " = 1 mile and include:

- 1. Existing municipal watersheds
- 2. Existing water district withdrawal points
- 3. Dan and reservoir sites considered suitable by the state.
- 4. Possible future reservoir sites suggested by the Coos Bay/ North Bend Water Board (CBNBWB)
- 5. Watersheds for potential reservoir sites proposed by CBNBWB
- 6. Existing wells in the dunes aquifer
- 7. Approximate extent of the dunes aquifer

The existing municipal watersheds include Ferry Creek, Rink Creek, Pony Creek and Eel Lake, serving Bandon, Coquille, the Bay Area and Lakeside respectively. Municipal watersheds are generally considered unsuitable for development because of the potential for increased sedimentation and biological contamination of water supplies. Some residential and agriculture development does exist, however, within Bandon's watershed.

Existing water district withdrawal points on the Coquille River serve Coquille, Myrtle Point and Powers. Powers also withdraws water in the winter from Bingham Creek. The Garden Valley Water District is supplied by China Creek and the Bridge area by a spring near Salmon Creek.

Potential water supply problems exist for the Coos Bay/North Bend urban area, Bandon and Bridge. During a recent year of record low rain fall, the Coos Bay/North Bend Water Board acquired water rights on Tarheel Reservoir temporarily and used it and water from Joe Ney Creek to supplement supplies for the Coos Bay area. The district is also raising the level of the Pony Creek dam to increase storage capacity and is exploring ways to develop its aquifer in the Coos Bay Dune Sheet more fully. Looking ahead, the CBNBWB has proposed several additional water storage sites as noted below.

The potential for water supply problems temporary receded in Bandon when the State-operated hatchery on Ferry Creek was leased to private interests which are currently raising a species of fish with a water-requirement regime that does not conflict with municipal needs. Since the water rights are transferable, the potential for future conflicts still exists. Low summer flow combined with low storage capacity are chiefly responsible for the problems within its watershed.

A water system improvement plan for the city recommends increasing storage capacity on Ferry and Geiger Creeks to compensate for low summer flows by impounding water runoff. The State Water Resources Department has identified the dunes from Bullards Beach State Park north to Cut Creek as a potential water source for the city of Bandon and has reserved Bradley Lake for municipal use by prohibiting certain other uses of its water. The Coquille Formation (old riverbed deposits in an ancient channel of the Coquille) may also contain water in sufficient quantities for municipal development. These deposits are found north of the city on the other side of the Coquille River and can be seen in the cliffs along the ocean south of Whiskey Run. Finally, it is possible that aquifers in the marine terraces north and south of the city could be developed to yield sufficient amounts of water to supplement municipal supplies.

The waterflow from Salmon Creek is often insufficient during summer months to supply the needs of the Bridge community. The water district could develop an intake on the Middle Fork of the Coquille to augment supplies during summer months.

Potential Impoundment Sites

The resource map identifies 10 potential dam and reservoir sites considered suitable by the State Water Resources Department following preliminary review and cursory geographic studies. Only one of these sites, on the South Fork Coquille River near Eden Ridge, is being studied for hydroelectric generation potential. Two of these sites (on Glenn Creek and the West Fork Millicoma River) are also being considered by the Coos Bay/North Bend Water Board.

In addition, the CBNBWB has suggested 8 possible water storage sites to meet future needs. One of these, on Bottom Creek, was considered unsuitable in the Water Resources Department review and at least one other site, on the North Fork Coquille River below Fairview, might be expected to have a significant impact on existing residential and agricultural use.

Watersheds for 4 of the potential reservoir sites suggested by CBNBWB are indicated on the resources map. The potential for conflict with the goals of State and Federal agencies exists on Winchester Creek, where the major fresh water inflow to the South Slough Estuarine Sanctuary might be affected, and on the West Fork Millicoma River. In the latter proposal, forest management practices for much of the Elliot State Forest are likely to be affected and productive timberland inundated; also, there is a perceived threat to the public safety of the several hundred people living downstream from the proposed earthfill dam.

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⁷⁴ HGE, Inc., <u>A Comprehensive Development Program for Water System Improvements, City of Bandon</u> (April, 1974), pp. 20-21.

Conflicting Uses

The potential for conflicts abounds when all existing and potential users are taken into account: municipalities, farmers, domestic users, fish, recreational users, industrial users, power companies, mining concerns.

Existing or potential conflicts for municipal water users come from several sources:

- 1. Growth pressure. As noted under "Municipal Water Resources," existing resources for several districts are already inadequate or approach that point during dry years. Growth in urban and urbanizing areas further stretches these resources. At projected rates of growth, new water resources and/or increased storage capacity will be required in several water districts by the end of the planning period.
- Pressure for residential, commercial and industrial development within a municipal watershed.
 These impacts are discussed under "Watershed Management." In terms of current development
 pressures, the major areas of concern are the Ferry Creek-Geiger Creek watersheds and the dunes
 aquifer north of Bandon.
- 3. Agriculture. Agricultural users compete with municipal users particularly during periods of low flow. This is possibly a contributing cause to water quality problems for the City of Coquille during summer months and affects water supply for the City of Myrtle Point. Also, current agricultural uses in Big Creek Valley would be threatened by development of that watershed, as proposed by the CBNBWB. Finally, agricultural use of chemicals such as fertilizers, pesticides and herbicides on farms in a watershed coult affect the quality of municipal supplies. This may be a planning concern in the Ferry Creek Geiger Creek watershed, which contains many cranberry bogs.
- 4. Needs for protection of certain natural or recreational resources. The proposed dam on Millicoma River, for instance, could cut off several tens of miles of river and streams from anadramous fish runs. Development of storage capacity on Winchester Creek would probably affect the ecology of South Slough, a natural research area. Also, the possibility of lowering-lake levels and damaging vegetation has caused the CBNBWB to seek a different pumping scheme in order to develop the water resource potential of the Coos Bay Dune Sheet.
- 5. Forest management practices. Timber harvesting and forest management practices affect the quantity and quality of water in streams and rivers and the amount of water which gets stored underground. While logging is not incompatible with good watershed management, if it is not properly managed the water resource value of the watershed can be damaged. This is of particular concern in the smaller municipal watersheds.
- 6. Existing users. Development of the groundwater resources of the terraces in the Bandon vicinity, which has been suggested as a possible way to augment water supplies for the City of Bandon, could affect well levels, stream flow, and water availability for cranberry growers in the area. Studies would have to be done to determine whether such development would yield enough water to be worthwhile for the city and what the impacts would be.

Developing the full potential of irrigable agricultural land in the County probably necessitates increasing the County's water storage capacity, since the greatest need for irrigation occurs during summer months when rivers and streams are lowest. Impoundments frequently conflict with other existing uses by cutting off fish access to spawning streams or in some instances inundating farm land. Residential development

conflicts with agricultural needs where agriculture is dependent on groundwater (cranberry bogs in the Bandon vicinity, for example) or on streams with a very low summer flow.

Resolving Conflicts

Several vehicles are in place for dealing with water use conflicts:

- Water rights Administered by the State Water Resources Department, water rights are granted
 on a first-come-first served basis except for those lakes and streams which are excluded by law
 from additional water appropriations. They are the legal basis for mediating between conflicting
 uses when demand exceeds supply.
- South Coast Basin Water Policy Developed and periodically updated by the State Water Resources Board with participation of a local committee including representatives from municipal water districts, agriculture and industry, this document fills the gap between water rights law and the legislative mandates of the State Water Resources Board. It has the weight of law.
- Forest Practices Act Makes timber harvesting more compatible with good watershed maintenance; when enforced, helps to maintain water quantity and quality.

The State Water Resources Board estimates that annual stream flows in the South Coast Basin (which is primarily made up of the Coquille and Coos River drainages) will still exceed the total demand for water in the year 2070. There is sufficient water on an annual basis for all uses. Conflicts arise largely because of the extreme seasonal nature of stream flow: demand is highest in summer months when stream flow is lowest. There are several general planning alternatives that are available, including managing watersheds solely to maximize their groundwater storage potential and summer stream flows, which conflicts with the economic needs of the County; limiting growth, which may not be legal and does not address existing problems; promoting conservation; and promoting construction of dams and reservoirs to increase storage capacity. The last alternative, creating impoundments to store winter runoff, would provide water to augment summer flows.

Full development of the water resources of Coos County will require further study in some cases. Most of the dam and reservoir sites identified have only been subject to preliminary investigation and review.

Continuing high quality water resources directly depend upon proper logging, agricultural, industrial and land development practices.

⁷⁵ <u>Summary Report of Oregon's Long-Range Requirements for Water</u> (1969), fig. 2.

3.7 UNIQUE SCENIC RESOURCES

Goal Requirements

Inventory

Potential Conflicts

3.7 UNIQUE SCENIC RESOURCES

Goal Requirements

State-wide Planning Goal S requires protection of scenic resources. It further requires that the quantity, quality and location of outstanding scenic resources be inventoried and that:

Where no conflicting uses for such resources have been identified, such resources shall be managed so as to preserve their original character. 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.

"Scenic areas" are defined in the goal as "lands that are valued for their aesthetic appearance."

Goal 17 (Coastal Shorelands) requires recognition of the aesthetic value of shorelands. It also requires that areas "of exceptional aesthetic or scenic quality, where the quality is primarily derived from or related to the association with coastal areas" be included within the shorelands boundary. Finally, Goal 17 requires protection of "exceptional aesthetic resources" and states that "uses in these areas shall be consistent with protection of natural values."

Goal 18 (Beaches and Dunes) requires that aesthetic values be taken into account when assigning uses in beach and dune areas. Specifically, it requires that among other considerations, uses "shall be-based on... the need to protect areas ... having scenic ... importance."

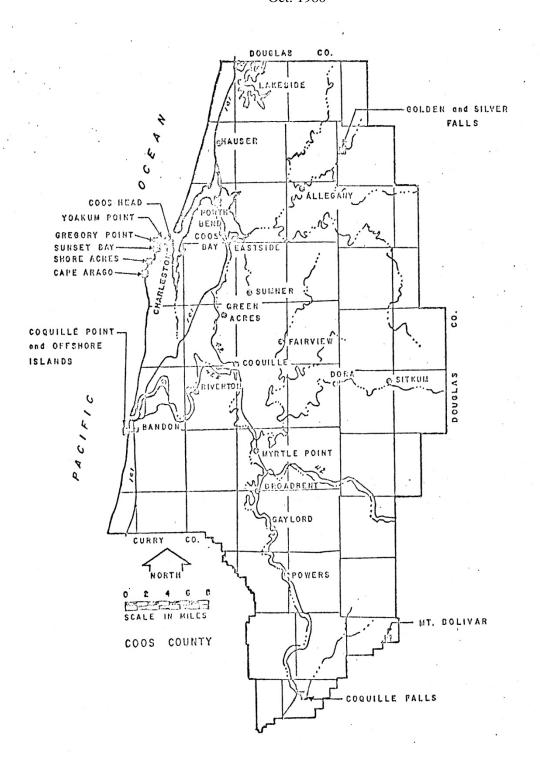
Inventory

Consultants for the Oregon Coastal Conservation and Development Commission inventoried landscape types on the coast and evaluated them on the basis of strength of coastal association. The result was identification of areas with the "potential for exceptional coastal experience." These areas include unique coastal landscapes, combinations of representative coastal landscapes with a high degree of diversity in a small area, and areas with either unique features or a high density of features such as coves, arch rocks, lighthouses and offshore rocks. These areas are identified on the Coastal Shorelands inventory maps.

The "outstanding scenic resources" shown in Figure 1 were identified on the basis of uniqueness and/or popularity. Particularly fine examples of fairly common landscape types were also chosen (Umpqua Dunes Scenic Area for example). These resources are listed and described in Table 1.

Figure 1

Outstanding Scenic Resources
(General Locations)
Oct. 1980



Volume I, Part 2 Page 141

<u>Table 1</u> Outstanding Scenic Resources

SITE	FEATURES		
Cape Arago	Headland; North and South Coves; offshore reef; sea lions; whale-watching in season; major geologic fault; rocky shore; tide pools		
Coos Head	View of complete North Spit, lower bay and Coos Bay bar; Coast Guard lookout		
Coquille Falls	Series of three "step" falls in South Fork of Coquille River		
Coquille Point and Offshore Islands	Headland, cliffs, offshore rocks of a different type than northern headlands; sandy beach; Table Rock; view of Bandon Bluffs		
Golden and Silver Falls	Two waterfalls of over 300 feet within ½ trail miles of each other		
Gregory Point	Arago Lighthouse, visible from many areas along the coast of Coos County		
Mt. Bolivar	At 4,319 feet, the highest point in the County; view of timbered interior of the Coast Range		
Shore Acres	Spectacular rocky coast; winter waves smashing coast sometimes send spray hundreds of feet into the air; formal gardens (remnants of the Simpson estate) small cove with shell-sand beach		
Sunset Bay	Large semi-circular cove with crescent- shaped beach; tree-covered offshore island; tilted beds of rock exposed in cliffs and reefs contrasting with broad grassy expanse and meandering stream; tide pools		
Yoakum Point	Rocky finger of land projecting into the Pacific; views of coves and headlands to south, beaches and bay to north, reefs and rocks offshore; dense, wir.d-pruned shrubs alternate with open grassy areas and forest.		

Potential Conflicts

All of the "outstanding scenic resources" are considered well protected due to the fact that they are in public ownership. The "areas with potential for exceptional coastal experience" are broader in extent and include some private land, although again substantial areas are within State Parks or the Oregon Dunes National Recreation Area. Conflicts are considered most likely to occur:

On the coastline in the Whiskey Run area and South of the City of Bandon. A 'Recreation' designation is proposed in the Whiskey Run area, and a "Controlled Development" designation within the urban growth area south of Bandon.

The land around Whiskey Run is part of a very extensive ownership which may ultimately be developed as a recreational planned unit development. The immediate coastal bluff could be required to be retained for its open space and scenic values during Planning Commission review of any proposal in this area. The Bandon U.G.A. coastal section is protected by the controlled development designation, which specifically provides for a site plan review to protect scenic resources. The Coastal Shorelands goal in any case restricts most types of development in rural areas, and this alone should adequately protect coastal scenic resources.

Where development is otherwise permitted in a scenic area, a site plan review can be required to ensure that the resource is adequately protected. It should be mentioned that logging and other forest management activities are regulated by the Forest Practices Act. The County has no powers to regulate the impact of forest management on scenic resources, whether inland or in coastal areas, (see Attorney General's opinions (#7894 and #7910), if forest management is a "primary use" in the applicable zone.

The Oregon Department of Forestry is required by Goal #17, Implementation Requirement 1 to develop forest management practices and policies which protect special shoreland values, but this has not yet been done.

Table 2

Ownership and Land Use Conflicts for "Outstanding Resource Areas"

SITE	OWNERSHIP	DEGREE OF PROTECTION	EXISTING OR POTENTIAL LAND USE CONFLICTS
SHE	OWNERSHIP	PROTECTION	USE CONFLICTS
Cape Arago	State (Parks Dept. ODOT)	Good	No known conflicts; Coast Guard maintains lookout on site
Coos Head	Federal	Good	
Coquille River	Federal (U.S. Forest Service)	Good	None; part of Coquille River Falls Natural Research Area
Coquille Point & offshore island	County (Point) & Federal (islands)	Good	No known conflicts; islands are protected under USFWS Oregon Islands National Wildlife program and Point is a County-owned park
Golden & Silver Falls	State (Parks Dept.)	Good	No known conflicts
Gregory Point	Federal	Good	No known conflicts
Mt. Bolivar	Federal	Good	No known conflicts
Shore Acres	State (Parks Dept.)	Good	None
Sunset Bay	State (Parks Dept.)	Good	None
Yoakum Point	State (Parks Dept.)	Good	None

3.8 DUNES AND NON-ESTUARINE COASTAL SHORELANDS

Extent and Ownership

Goal and Statutory Requirements

Resource Information

Dunes Classification Water Resources Fish and Wildlife Resources And Habitats Economic Resources

Resource Considerations

Water Quality ORV Use

Hazards to Development

Shorelands Identification

Current Uses

Development Pressures

Potential Uses

Shorelands Dunes

3.8 DUNES AND OCEAN, COASTAL LAKE AND NON-ESTUARINE SHORELANDS

Extent and Ownership

Coos County has extensive reaches of shorelands and dunes. There are about 53 miles of ocean coastline, approximately 70% of which is low, sandy beach associated with inland dunes. Headlands and bluffs, sometimes aproned by narrow beaches or pocketed by small coves, make up the balance. Coastal lakes are numerous and freshwater shoreline is abundant. Estuarine shorelands, addressed in the Coos Bay and Coquille River Estuary Plans, are also extensive; the local estuaries are drowned valleys and head of tide on the Coquille River alone is about 39 river miles above the mouth of the river. The County also contains more dune land then any other coastal county. Much of it (about 24,170 acres) is active or only wind-stable, with about 40,465 acres of stabilized dunes from an older episode of dune advance. The largest expanse of active and wind-stable dunes extends from the Douglas County line south to the mouth of the Coos River and is referred to as the Coos Bay Dune Sheet.

While most of the beaches are publicly owned, all are publicly managed. About 35% of the Coos County coastline is privately owned. Federally owned coast includes the Oregon Dunes National Recreation Area, (administered by the U.S. Forest Service), North Spit of Coos Bay (administered by the U.S. Army Corps of Engineers), the Coos Head Naval Station, and an area west of Croft and New Lakes (administered by the Bureau of Land Management). In addition, there are several major State parks administered by the Oregon State Parks Division, as are the beaches. Bastendorff Beach and Coquille Point are Countyowned. The major stretch of private ocean shorelands in the County is from Cape Arago south to Cut Creek. Lakefront ownership varies.

Many of the County's lakes are included totally or partially in the Oregon Dunes NRA boundaries. Some private landholdings are included within the NRA. These areas comprise the "Inland Sector" of the NRA. (See Coastal Shorelands Inventory Maps). The shorelands of Tenmile Lakes and smaller coastal lakes such as Chrome, Round, Fahys, Bradley, Laurel, Croft and New Lakes are almost totally in private hands. Major dunes areas in private ownership are found north of the Curry County line to Bandon State Park, north of Bullards Beach Park to Whiskey Run, and in a few cases immediately east of the Siuslaw National Forest.

Goal and Statutory Requirements

The Statewide Planning Goals and Guidelines require that:

- (1) The resources and benefits of coastal beach and dune areas and shorelands be conserved, protected, developed where appropriate, and restored where appropriate;
- (2) Hazard to human life and property from natural or man-induced causes be reduced;
- (3) Comprehensive plans and implementing actions (a) "provide for diverse and appropriate use of beach and dune areas consistent with their ecological, recreational, aesthetic, water resource, and economic values, and consistent with the natural limitations of beaches, dunes and dune vegetation for development" and (b) consider "the critical relationships between coastal shorelands and resources of coastal waters."

Additionally, recognition of the value of coastal shorelands "for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics"

⁷⁶ Soil Conservation Service, <u>Beaches and Dunes of the Oregon Coast</u> (OCCDC, 1974), p. 25.

is required, by Goal 17, as is reducing the adverse effects upon water quality and fish and wildlife habitat or man's use of coastal shorelands. Within the limits of its authority, the County is also required to reduce sedimentation in estuaries, nearshore waters and coastal lakes. Residences and commercial and industrial buildings are specifically prohibited on foredunes and interdune areas which are subject to ocean flooding (Goal 18). The goals also require that shorelands be identified in the Comprehensive Plan and that specific general priorities be set for uses within shorelands. Other statutes, regulations, or administrative rules which apply are listed below:

- Oregon Dunes NRA Act (P.L. 92-260) Regulates land use within Dunes NRA borders.
- Oregon Beach Law (ORS 390.605-390.770) Provides policies and guidelines for the protection of public rights and interests in Oregon's ocean shore; grants review authority to the State Highway Division for beach improvement permits; regulates removal of products from ocean shore.
- Beach Improvement Standards Instrument formulated by the State Highway Division to implement its authority in accordance with Oregon Beach Law and Statewide Goal directives.
- ORS 517.570-517.990 Requires reclamation and development plan for certain surface mining activities.
- ORS 541.605-665 Regulates fill and removal activities.

The following agencies have administrative authority and/or permit-granting authority in shoreland or dune areas in Coos County:

- U.S. Forest Service Administers Dune NRS, Siuslaw National Forest.
- State Water Resources Department Develops and administers State Water Resource Policies.
- Division of State Lands Manages State-owned waterways; administers state water resource policies.
- Division of State Lands Manages State-owned waterways; administers removal and fill permit law; reviews beach improvement permits.
- U.S. Army Corps of Engineers Has permit-granting authority for all work involving navigable waterways (including riprap).
- State Highway Department Acquires and operates State parks; has jurisdiction over Pacific Ocean shore; has permit review authority for improvements in the beach zone; regulates vehicle use in the beach zone.
- State Department of Geology and Mineral Industries Issues permits for certain surface mining activities and sets standards for reclamation.
- State Department of Environmental Quality Administers and enforces State laws relating to water quality and solid waste disposal.

- State Department of Fish and Wildlife Has responsibility for managing and protecting fish and wildlife resources; manages game fish and wildlife-oriented recreation.
- State Parks Division acquires and operates state parks.

Resource Information

Dune Classification

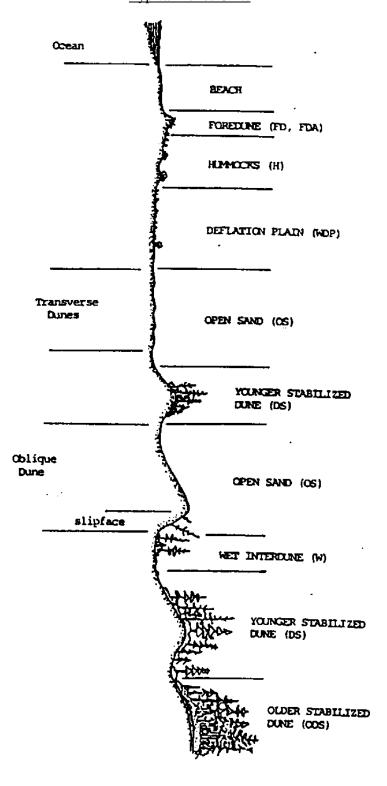
The dune resource classifications are mapped on pp. 15-11 through 15-13 in the Background Document, and were developed and mapped by the U.S.D.A. Soil Conservation Service for OCCDC (Beaches and Dunes of the Oregon Coast, 1975). The dunes areas delineated on the maps titled "Development Potential Within Ocean Shorelands and Dunes" are based on these classifications.

The units on the sand dunes maps that appear in the Background Document and the relationship of those units to the identification categories specified in Goal 18 of the Statewide Planning Goals and Guidelines are described in Table 1. Uses permitted, and findings required to permit development, are set out in Goal 18; the dune units to which various goal requirements apply are laid out in Table 6, together with probable constraints on development.

Table 1
Sand Dunes Units

Goal	Sand Dunes Map Units		
Categories	Name	Symbol	Abbreviated Description
	Open Sand Dune	OS	Wind drifted sand in the form of dunes and ridges, that are essentially bare of vegetation.
Active Dunes	Active Dune Hummocks	Н	Partly vegetated circular and elevated mounds of sand.
	Active Fore-Dunes	FDA	A growing barrier ridge of sand paralleling the beach which lies immediately above the high tide line.
	Foredunes	FD	An active foredune that has become conditionally stable with regard to wind erosion.
Recently Stabilized	Open Dune Sand Conditionally Stable	OSC	A sand dune presently in wind-stable condition but vegetated by fragile plantings.
Dunes	Dune Complex	DC	Various patterns of small dunes with partially stabilized intervening areas.
	Younger Stabilized Dunes	DS	A youthful wind-stable dune landform.
Older Stabilized Dunes	Older Stabilized Dunes	ODS	A wind-stable dune landform that has soils with weakly cemented nodules and to strongly cemented nodules or strongly cemented 'Bir' horizons.
Interdune	Wet Deflation Plains	WDP	Broad areas just inland from the foredunes which are wind-scoured to the height of the summer water table.
Forms	Wet Interdunes	W	Includes a range of landforms varying from wet open dune sand forms to wet areas in recent and older stabilized dunes.

Figure 1
Typical Dunes Units



Volume I, Part 2 Page 149

Water Resources

Features such as lakes are the surface expression of the water table. "Wet deflation plains" are created when wind currents scour the area directly behind active foredunes down to the water table level. Surface water is utilized by migratory waterfowl and as resting and feeding habitat. Surface water is most often found in wet deflation plain areas. Lakes and wet deflation plains are subject to considerable seasonal variations in water table level. From the onset of the winter rainy season until spring the water table is generally at, or above, the surface.

Overpumping of groundwater beyond its capacity to recharge from precipitation can cause lowering of dune lake levels and drying of wet interdune areas, with possible loss of vegetation and loss of wildlife habitat, lowering of the water table below the depth of some existing wells and salt water intrusion.

Salt water encroachment into dune groundwater supplies is normally limited, because of the pressure of freshwater flowing through the sand into the sea. However, excessive pumping from wells close to the ocean can cause a change in the hydraulic pressure. If this pressure is lowered too far, a wedge of seawater intrudes and contaminates the groundwater supply. Such intrusion is irreversible. The risk of saltwater intrusion is greatest on narrow spits which, like the North Spit, are surrounded by the sea and by brackish water. Maintenance of good water quality in the dune and upland water-courses is important to the health of users of groundwater from the dunes and for protection of anadromous fish and other wildlife. The dunes are particularly susceptible to direct chemical contamination from industrial, agricultural, domestic and other sources.

The following report (Oregon Economic Development Dept., Nov. 1983) summarizes results of several studies concerning water availability and how it may be affected by proposed industrial users.

WATER SUPPLY AND WATER DEMAND INDUSTRIAL ACTIVITIES ON THE NORTH SPIT: COOS BAY, OREGON

WATER SUPPLY

The Coos Bay North Bend Water Board (CBNBWB) is responsible for constructing, operating and managing a water system for the cities of Coos Bay and North Bend and other cities in the area, including the Port's North Spit Industrial Site. The CBNBWB holds Oregon Water Permit No. G-1389, which gives it the right to install up to 64 wells in the dunes aquifer north of the North Spit, and to pump up to 30 MGD from those wells. Capacity of the 20 wells already in service is approximately 7.5 MGD. The Board also has plans to utilize water impounded in Pony Creek and Joe Ney Creek to provide future water supply for its service area. (1) CBNBWB plans rely on the following established water sources to meet future needs:

Dunes 22.0 MGD (may be increased by well field modification

Pony Creek 5.3 MGD Joe Ney Creek 5.0 MGD 32.3 MGD

A 1973 USDOI model study described the dunes aquifer which is the major source of water for the CBNBWB. Precipitation (approx. 62" a year) is the major source of groundwater in the dunes aquifer. Recharge of the aquifer was found to be equivalent to 37 MGD. The study concluded that 30 MGD could safely be withdrawn from the dunes aquifer without danger of salt water intrusion. (2)

The water table in the dunes aquifer includes a number of upland lakes north of the North Spit (Horsfall, Spirit, Bluebell, etc.). These lakes are interrelated visible indicators of the height of the water table. They overflow from one to the other southerly, during the rainy season. During the dry season, lack of rain as well as drawdown from nearby wells adjacent wells did affect lake levels, and that if lake lowering was considered a problem for aesthetic or recreation purposes, the Board could consider relocating the westerly wells to minimize drawdown in the vicinity of the lakes. (3)

Concern for the recreational, aesthetic and wildlife uses of the upland lakes caused the CBNBWB to adopt a policy that they would rely on the dunes aquifer for only 22 MGD until such time as studies reveal ways to harvest the full 30 MGD allowed under their permit, without major threat to the lakes. Studies are ongoing, sponsored by CBNBWB, USGS and others, to assure that an adequate quality and quantity of water will be available to meet demands of municipal, residential and industrial users, without threat to the environment. For example, in consideration of a new well field design, a 1978 study of excessive dissolved from concentrations in the upper part of the tunes aquifer, minimizing drawdown of the interior lakes. (4)

This and other considerations are the subject of current studies, which will assure that the Water Board can optimize water withdrawals, thereby minimizing both costs of water service and the effects on the environments.

Plans are also underway, under an EDA grant, to construct a pipeline to serve the North Spit industrial area from Highway 101 south to the Port's North Spit site, then across the Bay to the municipal system. As the new road through the industrial area is constructed, the waterline will be installed along the right-of-way. As demand increases, the line can be extended through an underwater line from Ore-Aqua to Empire, integrating the whole system. (5)

WATER DEMAND

In May 1983, the Coos Bay-North Bend Water Board project 32.5 million gallons a day future water demand for the Board's service area as follows:

Municipal	9.5 MGD
Present pump mill	3.0 MGD
Possible new pulp mill	10.0 MGD
Coal export	2.0 MGD
Fish processing	2.0 MGD
Mineral processing, oil refinery, unanticipated developments and changes in other	6.0 MGD
estimates	
	32.5 MGD

Although changes in the economy, population growth, export opportunities and processing technology will modify any such estimates over time, this summary reflects the needs which the Water Board has now committed to meet by the year 2001. Should demand change, CBNBWB will modify its program to meet those needs. (1)

In September of 1983 the Oregon Economic Development Department (EDD) prepared for the Coos County Commissioners an analysis of the industrial activity for which the Port's North Spit property was an ideal location. (6) This analysis, coupled with the analysis prepared by the CCD Business Development Corporation in 1982 (7) concluded that the following new industrial activities could be expected to seek a North Spit location. The County was urged to plan for these activities, through comprehensive plan and zoning and by plans for public facilities and services. The activities are:

- Transshipment of coal, perhaps providing a market for local coal
- Land base for exploration, equipment construction and maintenance, transshipment and/or processing of manganese nodules and/or polymetallic sulfides
- Cargo handling
- Marine construction and support
- Marine fuels bunker facility
- Seafood processing and trawler basin
- Oil rig or OCS mining platform fabrication
- Manufacture of glass

The following report, a supplement to the EDD report of September '83, (6) presents more specific information on the possible water demand of 31.57 MGD by the land uses described. These are estimates of a variety of industrial and process demands. Until it is clear which of the industries actually submits a development proposal, specific demands cannot be known. These estimates are for long range planning purposes only.

Industrial Activity	Potential Demand on CBNBWB Water Supply
Coal Transshipment and processing. A 10 MTY coal transshipment facility can be estimated to use 250,000 GD of water for dust control and washing cars. Surface runoff will be recycled. (8)	.25 MGD est.
Mineral ore transshipment. If we assume that minerals from the continental shelf such as manganese nodules or polymetallic sulfides will be transshipped from North Spit, we could assume another 250,000 GD.	.25 MGD est.
Should local coal be processed as part of a transshipment operation, as envisioned at the time of the CBNBWB estimates, additional processing water could be needed. (9) Site and environmental standards will call for recovery and reuse of water.	1.50 MGD est.
Water demand of the Port's planned Marine Terminal and Industrial Park were estimated at 1,750 gallons a day. (10)	.00175 MGD est.
Should glass be manufactured at the North Spit, that process might demand 70,000 GD. (11)	.07 MGD est.
Oil Rig Fabrication requires minimal water for employee use and some dust control, similar to the industrial park operations described in the CORPS estimate above. (12, 13) Assume another 3,500 GD.	.0035 MGD est.

Dewatering of a graving dock is a separate matter. This process does not pump water for consumption, but to divert the ground water flow by pump and pipeline near the dock and therefore close to where that water would otherwise escape from the water table into the bay. Since the site under consideration is considerably south and across a substantial year round lagoon from the CBNBWB well field, it can be concluded

.00 MGD est.

that it would have no measurable effect on the water supply under discussion. (13, 14)

Extraction of minerals from Manganese Nodules (MN).

5.0 MGD est.

Considerable study has been done to determine the most efficient and environmentally sensitive process to extract salable minerals from manganese nodules. (15, 16, 17) Both hydrometallurgical and/or smelting processes have been considered, which can recover up to 95% of the contained metals. Each of the processes considered varies in its water needs. However, all are said to recover and reuse water from their own or other processes. Potable water is not required for 100% of the demand. (17, 18)

Possible processing methods and processing water needs for a 3-metal plant processing 3 MTY or a 4-metal plant processing 1 MTY include:

Reduction/Ammoniacal Leach	4.75 MGD
High Temperature Sulfuric Acid Leach	4.75 MGD
Reduction/Hydrochloric Acid Leach	3.3 MGD
Smelting	1.5 MGD
Cuprion/Ammonia Leach	6.3 MGD
AVERAGE	4.1 MGD

At this time it is not clear whether one of these plants will choose a Coos Bay site, or indeed which process would prove cost effective and meet local environmental standards. If one did locate on the North Spit, it could be expected to employ 300-500 people, and operate 3 shifts a day. (15)

Water demand estimates quoted here are high because studies reviewed made clear that water would be recovered and reused throughout the process, and that not all water would need to be potable. But percent of reuse and bay or sea water were not specified.

Therefore it is difficult to choose a number for this estimate. The average of the demands of the above uses would be 4.1 MGD. Eighty percent (potable and consumed) of the largest water using process would be 5 MGD. Those interested in a more precise estimate for a specific process can investigate the details in the sources noted. For planning purposes we have chosen a high side of 5 MGD.

Extraction of minerals from Polymetallic Sulfides (PMS)

Little study has been done of new processes whereby a high percent of minerals could be extracted from polymetallic sulfides. It is known that the sulfides are available close to the Oregon shore, within the 200 mile Economic Zone, and may be able to be processed by existing technology. Marketable grades of the ore may ultimately be shipped considerable distance for processing. In that case water demand would be less than the .25 MGD above (smaller quantities). But since Coos Bay is the closest port available to America's best PMS site, the North Spit could become a PMS processing site, with or instead of the MN activity described above.

Since the Coos County Comprehensive Plan has made available land to meet either MN or PMS transshipment or processing needs, and specific processes have not yet been determined, water needs could be assumed within the 4 MGD estimated above.

From a specific industrial perspective, therefore, possible water needs of the industrial lands on the North Spit, together with other uses already projected by the CBNBWB, could be estimated as follows:

	<u>Estimate</u>
Coal transshipment	.25 MGD
Manganese Nodule/PM sulfide transshipment	.25 MGD
Processing Local Coal	1.50 MGD
Marine Industrial Park	.00175 MGD
Glass Manufacture	.07 MGD
Oil Rig Fabrication	.0035 MGD
Manganese Nodules/PM Sulfide	5.0 MGD
Municipal	9.5
Present Pulp Mill	3.0
Possible New Pulp Mill	10.0
Fish Processing	2.0
Total estimated use	31.57 MGD

This demand is within the supply which will be available when such development occurs. As actual development occurs, these estimates as well as water supply system changes can be monitored and revised, to assure an adequate quantity and quality of water to the North Spit industrial properties.

NOTES AND REFERENCES

- (1) Letter from C.W. Heckard, Manager, Coos Bay-North Bend Water Board, May 17, 1983; Heckard letter of October 28, 1983, CBNBWB letter of November 3, 1983.
- (2) "Hydrology of the Dunes Area North of Coos Bay", J.H. Robison, USDOI, 1973.
- (3) Ibid, pp. 8, 9, 16, 18, 37.
- (4) "Iron Geochemistry and Distribution in a Coastal Dunes Aquifer, Coos Bay, Oregon", Poster and Abstract, J.E. Luzier, USGS, Portland, Oregon 97232
- (5) Heckard May 1983 letter, op. cit. p.6.
- (6) "Comparative Advantages of the Coos Bay North Spit Industrial Site". Oregon Economic Development Department, September, 1983.
- (7) "Industrial Land Needs Survey/Comparative Advantages Analysis", G. Anthony Kuhn, Coos Curry Douglas Business Development Corporation, 1982.
- (8) "Analysis of Energy and Non-Energy Related Development Potential in the Columbia River Estuary", CKEC Consulting Engineers, Inc., February 1983, p. V-19.
- (9) Conversation with C.W. Heckard, 11-9-83.

- (10) "North Bay Marine Industrial park, Draft EIS", U.S. Army Corps of Engineers, Portland District, September, 1981, p. IV-9.
- (11) Oregon Economic Development Department, Business Development Division.
- (12) "Construction and Operation of Pacific Fabricators' Steel Structure Fabrication Yard to Warrenton, Oregon, Draft EIS", U.S. Army Engineer District, Portland, Oregon, December, 1977.
- (13) Coos County ACU-83-23, Administrative Conditional Use Approval for Steel Platform Construction Facility, September 1, 1983.
- (14) See "Hydrology of the Dunes Area North of Coos Bay," J.H. Robison, USDOI, 1973, for a description of how water flows within the dunes aquifer.
- (15) "Description of Manganese Nodule Processing Systems for Environmental Studies, Progress Report, Vol. 1 Summary. Prepared by Dames and Moore, Inc. and EIC Corporation for NDAA, January 12, 1977, also Dames and Moore, ibid., Vol. II, pp. 3-6 to 8-12.
- (16) "Manganese Nodule Resources of Three Areas in the Northeast Pacific Ocean: With Proposed Mining-Benefication Systems and Costs," C.Thomas Hillman for USDOI. Circular 8933, p.23-27.
- (17) "Land Based Requirements for Deep-Ocean Manganese Nodule Mining", in "Manganese Nodule Deposits in the Pacific", Hawaii Conference, October 16-17, 1972, by Raymond Kaufman, for Deepsea Ventures, Inc., Gloucester Point, VA.
- (18) "Identification of Representative West Coast Areas for Manganese Nodule Processing Activities", James A Henderson thesis, 1977, pp. 3.10, 3.11.
- (19) "Polymetallic Sulfides: an Industry Viewpoint", C.G. Welling, MIS Journal, Vol. 16, No. 3, p. 6.

Fish and Wildlife Resources and Habitats

Shoreland and dune habitats and fish and wildlife resources are discussed in more detail in the Shorelands and Beaches and Dunes chapters of the Background Document. The Nature Conservancy has identified the following critical habitats in Coos County as shown in Table 2, Critical Habitats in the Beaches & Dunes of Coos County.⁷⁷

⁷⁷ Bill Burley, <u>Critical Species and Habitats of Oregon's Coastal Beaches and Dunes</u>, pp. 62-67. <u>In Beaches and Dunes</u> Handbook for the Oregon Coastal Zone (Oregon Coastal Zone Management Association, 1973).

Table 2

Critical Habitats in the Beaches & Dunes of Coos County

Area	Features
Mouth of Tenmile Creek	Snowy plover habitat, both sides of the mouth; bald eagles have been observed here.
North Spit, Coos Bay	Snowy plover habitat; full representation of plant communities and flora characteristic of Oregon's beaches and dunes
New River sandspit	Snowy plover habitat
Bullards Beach to North Jetty of Coquille River	Rare plant (silvery phacelia) in dunes; snowy plover habitat on ocean side of spit.

Anadromous fish run in many coastal streams and in Tenmile Lakes (see "Fish & Wildlife Habitats" map). Wetland habitats in the dunes are mapped as part of the Coastal Shorelands inventory. Some of these areas are important nesting and feeding sites for migrating waterfowl.

Economic Resources

The economic values of the shorelands and dunes (apart from estuarine shorelands) are derived chiefly from their value as recreational resources. Tourism is an important source of income to the County, perhaps of greater importance then agriculture. The scenic and fish and wildlife resources of the coast and dunes are major components of the recreational value. Fishing (ocean, bay and lake) is a major attraction, though duck hunting in the dunes wetlands, important resting and feeding areas for wildfowl, may attract a few users. The open sand attracts many off-road vehicle (ORV) enthusiasts from the Willamette Valley and out-of-state. Boating on Tenmile Lakes is also popular. The sand itself is an economic resource and has been mined for glass production for several years from just outside the Dunes NRA boundary.

There are also several industrial sites within the dunes area near Hauser. These are located adjacent to the railway and represent a few of the only potential industrial sites not adjacent to estuaries. (See the Industrial Lands Element for more details).

Resource Considerations

Water Quality

Maintenance of good water quality in the dunes and upland water-courses is important to the health of users of groundwater from the dunes and for protection of anadromous fish and other wildlife. The dunes are particularly susceptible to direct chemical contamination from industrial, agricultural, domestic and other sources. While the streams may gain in volume as they flow through the dunes in the winter, some of the streamflow contributes to the groundwater supplies in the summer when the water table is lower. If the stream contains chemical pollutants, these will reach the groundwater supplies and be pumped out by municipal and domestic users and possible contaminate dunes lakes and wetlands.

Lakeside development can pose unforeseen problems. Large-scale removal of vegetation and disturbance of soil on the banks of uplands can increase bank erosion and sedimentation, which can block channels, lower the lifetime of the lake and cause gill damage to fish. Maintaining vegetation along the shores protects banks from erosion and, if the vegetated strip is sufficiently wide, can protect the lake to some degree from sedimentation from storm runoff. Another common problem is increased levels of nitrates, nitrites and phosphates, the result of the breakdown of human and animal waste and of the use of detergents which leak into lake waters from subsurface disposal systems (or are in some cases dumped directly into the lake). These substances fertilize the growth of algae and other plants. Besides being a nuisance in their own right, these plants die and decompose, which robs the water of oxygen needed by fish and other aquatic life. The resulting accumulation of organic debris on the bottom also lowers the lifetime of the lake. There are several ways to avoid the problem, including restricting lakeside development to areas that are already committed to such uses, limiting density, requiring that drainfields be set back and adequate distance from the lake's edge so that waste products are less likely to reach the water and developing sewage treatment systems that remove these products.

Off-Road Vehicle (ORV) Use

ORV use can conflict with other recreational values, with stabilization needs, and with wildlife and consequently requires management. Salt marshes, sand flats, and estuarine areas are particularly sensitive. Foredune vegetation, though easily damaged by ORV use, is also vigorous and recovers fairly quickly. However, compatibility with existing and projected uses behind the foredune must be considered since erosion damage to the foredune raises the risk of wave overtopping, breaching of the foredune and ocean flooding of areas behind the foredune. This is not currently a problem in Coos County since there is no development on or behind the foredune.

Vegetated dunes, on the other hand, recover very slowly and are easily disturbed. Once the vegetation is removed and a track is created, other ORV users feel that the bare area is a "legitimate" trail and the damage progresses. The wind erosion and sand deposition that results can threaten nearby property, recreational facilities, and homes. This is a potential problem in the Round, Chrome, and Whiskey Run areas and possibly also in the dunes south of Fourmile Creek toward Croft Lake. The magnitude of the problem will depend upon future ORV use rates and the amount of development that is permitted to occur in these areas.

As for identifiable wildlife conflicts, damage to vegetation in the deflation plain can have a significant impact on a habitat used by migrating waterfowl. There are conflicts with needs to maintain critical habitats in a few areas. Having brief closures (April-June) in those limited areas identified as snowy plover nesting site would be one way to help make ORV use compatible with protection of endangered species. Management of ORV use can probably be most effectively accomplished through a management plan developed cooperatively with ORV clubs, State and County park and recreational agencies, private landholders and other appropriate parties.

Hazards to Development

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Hazards are briefly addressed by landform below. Beaches and foredunes are discussed together since foredunes are unstable features and are subject to similar hazards to development as beaches. The pertinent map units are given in parentheses. Additional information is available in the "Beaches and Dunes", "Shorelands", and "Natural Hazards" chapters in the Background Document.

⁷⁸ This and following information is from Off-Road Vehicle Planning and Management on the Oregon Coast, by Timms Fowler (OCZMA, Inc., 1978).

The erosion patterns of beaches and foredunes (FD, FDA) are subject to rapid change. A foredune area that has been growing seaward for a decade may be undercut during a single storm. Rip-tides cause small embayments in beaches which can extend across the entire width of the beach and begin to erode into the foredunes on sea cliffs; these change in location from year to year. Seasonal changes in beach profiles are dramatic: high-energy winter waves move vast quantities of sand offshore, exposing foredunes and cliffs (usually protected during summer by wide berms of sand) to the power of the waves. Fore-dunes are occasionally overtopped by large storm waves and even breached, allowing ocean flooding of the deflation plain.

Because the sand stored temporarily on beaches and foredunes absorbs the energy of the waves and protects inland areas from wave damage and ocean flooding, maintaining the volume of sand in these areas is important. Beaches are in a state of dynamic equilibrium. Sand is constantly being removed from a beach by wave erosion, wind and currents, while it is supplied largely from river sediments and sea cliff erosion and carried into an area by currents and waves. Loss of supply causes increased erosion of beaches and headlands; interruption of sand transport causes deposition in one area and increased erosion in another. While beach from protective structures and measures taken to reduce headland erosion can control erosion at one location, they generally increase erosion elsewhere. Oregon law allows the issuing of permits for beach front protective structures only where development existed on January 1, 1977, and one of the criteria for issuing such permits is compliance with local comprehensive land use plans. The mining of sand from beach areas disrupts the sand supply and should be carefully controlled. The mining of sand at Gleneden Beach, for instance, was an aggravating factor in the erosion of Siletz Spit, site of the Salishan development. The damming of rivers and streams also removes sources of sand.

Siting development in beach and foredune areas can cause water quality and waste disposal problems. While bacteria are filtered out of septic wastes as they percolate through sand, nitric, nitrous and other chemical components are not. These contaminate groundwater supplies. Septic system problems are compounded on beaches because of seasonally high water tables. In addition, pumping from wells close to the ocean causes a change in the hydraulic pressure. Salt water encroachment into beach and dune groundwater supplies is normally limited because of the pressure of fresh water flowing through the sand into the sea. If this pressure is lowered too far, a wedge of seawater intrudes and contaminates the groundwater supply. Such intrusion is irreversible. The risk of saltwater intrusion is greatest on narrow spits, which are surrounded by the sea and by brackish water.

Wind erosion and deposition, also a hazard in beach and foredune areas, is covered in greater detail below in the discussion of other dune types. Development of foredunes poses a particular wind erosion problem. Excavation for development, the accompanying loss of vegetation, and disruption of the wind flow by structures can promote severe wind erosion of theforedune which threatens not only the structures sited on the foredune itself, but also the area behind the eroded foredune which then suffers a greater risk of flooding and wave damage because of potential foredune breaching.

The major hazard to development in interdune areas (WDP, W) is the high water table. Winds scour these areas down to the level of the water table in the summer while in the winter the water table is often several inches to several feet above ground level. Septic tanks generally fail and the potential for groundwater pollution is high. Additional hazards are ocean flooding, salt water intrusion, wind erosion and deposition around structures and drawdown. Drawdown is the general lowering of the water table caused by the pumping of groundwater. It can cause increased wind erosion and loss of vegetation as the water table is lowered below root depth. Other impacts are reduction of lake levels, lowering of the water

⁷⁹ Paul Komar, <u>Physical Processes and Geologic Hazards on the Oregon Coast</u> (OCZMA, Inc., 1979), p. 8.

table below the depth of some existing wells and salt water intrusion. Lowering of the water table indicates that groundwater is being used faster than it is being replaced.

In addition to potential drawdown, groundwater pollution and sewage disposal problems, dunes areas (OS, H, OSC, DC, DS, ODS, FD and FDA) are vulnerable to wind erosion and deposition. Deposition occurs when natural or man-made obstructions slow the wind, causing it to drop its load of airborne sand. Burial or partial burial of roads, structures, lawns, and parking lots results, dunes advance by the accumulation of sand on their downwind sides. In Coos County, some dunes have been observed to advance 2-6 feet per year. While the degree of hazard varies somewhat depending on vegetative cover, soils are generally thin (where present) and wind- stable dunes are easily reactivated. Even when there are well developed soil profiles, as on older stabilized dunes, there may still be risk of reactivation because the underlying sand is often not demented or is only poorly demented.

The most common result of disturbance of vegetation on otherwise vegetated dunes is a blowout, an elongated, dish-shaped area bare of vegetation. After the initial disturbance, the wind takes over and a feature that may have been only a few feet across and several feet long in its early stages can develop into a landform hundreds of feet across and more than a mile long.⁸¹

Protecting existing vegetation and requiring revegetation as soon as possible when the plant cover must be disturbed are ways of reducing wind hazard.

Headland erosion is a more direct threat to existing homes in the County then is erosion of beaches and foredunes. Many factors contribute to headland erosion rates, including the type of underlying rock, the degree and direction of slope of the underlying rock, groundwater, the steepness of slopes where uplands meet the sea, and the presence of accumulations of driftwood and/or rock debris at the base of the cliffs.

If the underlying rock is generally hard, as at Bandon, regional erosion rates are extremely slow, ranging from almost zero to one inch per year. The erosion rate can be considerably greater locally where the rock is sheared or where there are joints, faults or zones of softer rock, as at Bandon Viewpoint. Sandstone headlands and bluffs of the County (Cape Arago, Coos head, the bluffs above Lighthouse Beach) appear to be eroding at regional rates of a few inches per year or less. However, here headland erosion is sporadic because erosion proceeds much more quickly along siltstone layers interspersed with the sandstone and along joints and faults. The softer siltstone layers can undermine the sandstone cliffs and lead to the breaking off of large clocks of rock. Headlands underlain mainly be siltstone erode uniformly because of the finer jointing of the rock (Twomile Creek, for example). Rates are more rapid – probably close to several inches per year. It must be emphasized that the erosion rates indicated on the "Development Potential" maps are regional in nature and that on-site inspection is necessary to determine suitability for a particular development proposal.

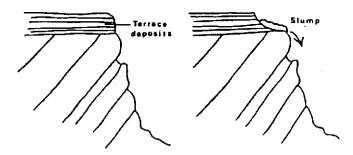
Slumping of terrace deposits is an associated erosion hazard in areas where sea cliffs have been cut into coastal terraces. These deposits of sand, clay and gravel cap the wave-cut plat forms of rock which now stand up to several hundred feet above sea level and are visible many places along the coast from Coos head to China Creek. When saturated, these deposits often collapse leaving crescent-shaped depressions at the top edges of cliffs. Usually the slumps do not reach farther back from the cliff edge than twice the depth of the terrace deposit. Moderate setbacks are generally considered adequate protection. While such slumping usually occurs during the rainy season, it is becoming increasingly common in developed areas regardless of season. One probable cause is groundwater introduced by septic systems.

⁸⁰ Beaulieu and Hughes, p. 109.

⁸¹ Chris Crook, <u>A System of Classifying and Identifying Oregon's Coastal Beaches & Dunes</u> (OCZMA, Inc., 1979), pp. 86-87.

Figure 2

Cross-section of cliff showing slumping of terrace deposits



Driftwood and rock debris at the base of cliffs absorbs wave energy. Their removal can increase erosion rate significantly and endanger existing development.

Shorelands Identification

Statewide Planning Goal #17 (Coastal Shorelands) requires identification of shoreland areas in accordance with seven criteria. Coastal Shorelands are defined as "those areas immediately adjacent to the ocean, all estuaries and associated wetlands, and all coastal lakes". Estuarine Shorelands for the Coos Bay and Coquille River estuaries are identified in their respective management plans. Other shorelands (for the ocean, coastal lakes and minor estuaries) are identified in this document. The Statewide Planning goals define coastal lakes (in part) as "lakes in the coastal zone that are created by a dune formation". The coastal zone extends to the crest of the coast range. The seven criteria are to be applied within the "planning area", an area for inventory and study, to determine where the coastal shorelands boundary should be. In Coos County, the planning area includes all land west of Highway 101 except that in the central section of the county, the planning area is only the land west of Cape Arago Highway and Seven Devils Road. In addition, land within 500 feet of the shoreline of coastal lakes that are outside the abovementioned area, are also included in the planning area.

In Coos County, the relationship between the dunes and lakes like Horsefall and Spirit is obvious; less obvious is the fact that Eel Lake and Tenmile Lakes owe their existence to the advance of the Coos Bay Dune Sheet (see p. J-1). For this reason, they are identified as coastal lakes, even though they lie to the east of Highway 101. Many of the other coastal lakes in the county were also formed when advancing dune sheets blocked streams.

The seven criteria and the way in which they were applied and interpreted are detailed as follows. The areas which fit the criteria are mapped at a scale of 1" = 800 feet, which provides sufficient detail to determine the precise relationship of the shorelands boundary to property lines. The general location of the shorelands boundary itself is also mapped at a scale of 2" = 1 mile on the map titled "Development Potential within Ocean Shorelands and Dunes".

1. "Lands which limit control or are directly affected by the hydraulic action of the coastal water body, including floodways". (LCDC Statewide Planning Goal #17, Coastal Shorelands)

These areas are defined as:

- a. Land subject to potential ocean flooding, e.g. deflation plains behind active foredunes, as indicated by the HUD Flood Hazard Boundary Maps, Zone A (100-year floodplain).
- b. Land subject to flooding by the estuarine portion of minor coastal streams, (New river, Tenmile Creek, Fourmile Creek, Twomile Creek), and around coastal lakes. (Source HUD, as above). Note that floodplains of tributary streams to certain coastal lakes, especially the Tenmile Lakes extend for several miles. They are considered to be associated with the streams rather than the lakes, and are not included in the shoreland boundary, except within 500 feet of the lake shoreline. Note that detailed floodplain information distinguishing the "floodway" from the "flood fringe" is not yet available. Consequently, flood fringe areas are also included in the shoreland boundary where applicable
- c. Foredunes (source "Beaches and Dunes of the Oregon Coast", SCS for OCCDC, 1974).
- 2. "Adjacent areas of geologic instability"

These areas are identified as:

- a. Areas subject to beach erosion (Source "Environmental Geology of Western Coos and Douglas Counties", DGMI, 1975).
- b. Areas subject to headland erosion (Source as above).
- c. Slide areas (Source as above).
- d. Steep ocean bluffs, defined as areas with regional slope of greater than 50%, having high potential for mass movement and erosion (Source as above).
- 3. Natural or man-made riparian resources, especially vegetation necessary to stabilize the shoreland and to maintain water quality and temperatures necessary for the maintenance of fish habitat and spawning areas.

These areas are identified as:

- a. Vegetated shorelines of coastal lakes and minor estuaries, mapped schematically as a riparian strip or fringe which stabilizes banks and maintains water temperatures. In certain areas, adjacent wetlands are an extension of riparian vegetation (see Criterion #4, below). It is not possible without extensive field checks to determine the precise boundaries between riparian and nonriparian species. Typical riparian species are red alder, willows, ash, spruce and myrtle. However, alder, spruce and myrtle are found in adjacent uplands also, making a precise division between riparian and nonriparian vegetation difficult. No other natural or man-made riparian resources have been identified.
- 4. Areas of significant shoreland and wetland biological habitat.

These areas are identified as:

- a. Significant wetland habitats (source USFWS Wetlands Inventory). All wetlands shown within the "Planning area" are inventoried. However, certain wetland areas are considered not to be 'significant' either because:
 - i. they are disjunct wetland areas which are not adjacent to or associated with the ocean, estuaries or coastal lakes, or;
 - ii. because they are "wet meadows" under active agricultural use and therefore not "significant". This occurs in the New Lake/Bethel Creek area, as determined from Assessor's Department airphotos showing agricultural areas. See Fish and Wildlife Habitats Strategy. #4, for rationale.
- b. Shoreland bird nesting sites (snowy plover, osprey, bald eagle). These sites are identified generally, at the scale of 1/2" = 1 mile on Fish and Wildlife Habitats Map I rather then in the Shoreland Inventory in the interests of keeping the exact location of the nesting sits confidential. In any case, all such nesting sites are within the Coastal Shorelands Boundary as based on the other criteria. (Source, local office, ODFW).
- 5. Areas necessary for water-dependent, water-related uses, including areas of recreational importance which utilize coastal water or riparian resources, areas appropriate for navigation and port facilities, and areas having characteristics suitable for aquaculture.

These areas are identified as:

- a. All ocean beaches and shores of New river. (Not identified on shoreland inventory maps in the interest of graphic legibility).
- b. All coastal parks having frontage on beaches or coastal lakes (State, County parks, Oregon Dunes National Recreation Area). The "Inland Sector" is not, however, included in the Shorelands Boundary unless other criteria apply (see maps).
- c. Private recreational facilities (see maps).
- d. Coastal lakes suited to water-dependent recreation. Certain lakes (like Tenmile Lakes and Croft Lake) are used for boating. Other lakes are used for hunting waterfowl (lakes in ODNRA). Several lakes also support fish populations. (See Recreation Element for details, especially, p.T-34).

No areas suited to navigation or port facilities have been identified in the ocean shorelands, coastal lakes or minor estuaries. No definitive studies have been done on suitability for aquaculture. However, minor estuaries with anadromous fish runs connecting with coastal lakes might possess suitable characteristics. The New river/New Lake/Croft Lake and Tenmile Creek/Tenmile Lakes/Eel Lake systems might repay investigation.

6. Areas of exceptional aesthetic or scenic quality where the quality is primarily derived from or related to the association with coastal water areas.

These areas are identified as:

Areas identified as having "potential for exceptional coastal experience" in "Visual Resource Analysis of the Oregon Coastal Zone". (Walker, Havens and Erickson, OCCDC, 1974). However,

since the source maps these areas very generally, USGS 1:2400- quad sheets were used to check the boundaries and topography of the exceptionally scenic coastal area, which were modified to exclude land which has little or no relief. Thus, certain bench areas above the ocean bluffs were excluded from the inventory. There is considered to be no reason to protect such land from development, since it has little or no scenic value.

7. Coastal Headlands

These areas are identified as:

Coastal promontories with steep bluffs - Coquille Point, Five Mile Point, Cape Arago, Gregory Point, Yoakam Point, and Coos Head. These are named on the inventory maps.

The Coastal Shorelands Boundary itself generally follows the outline the feature which extends the furthest inland. The boundary excludes, as far as practicable, any land which fits none of the seven criteria. Separate shoreland boundaries are described for coastal lakes which lie outside of the main coastal shoreland area.

Coastal Shoreland Segment

The following narrative gives a brief description of the coastal shorelands area, divided into geographic segments with distinct characteristics, from north to south. Boundaries around coastal lakes outside of the main shorelands area are dealt with separately.

<u>Segment 1 – Douglas County line to Siuslaw N.F. boundary</u>

This segment comprises the Oregon Dunes National Recreation area and the Tugman State Park. The shoreland boundary follows the boundary of the ODNRA or the State Park for the most of the segment. However, land on the "Inland Sector" (private land within ODNRA boundary) is only included in the shoreland boundary where other features exist. Thus, a segment of private land south of Butterfield Lake, which has no shoreland characteristics, is not within the boundary, but extensive areas of dune lakes and associated wetlands and wet deflation plains. The area of wetlands around Horsefall, Spirit, Teal, Snag and Sandpoint Lakes is considered a major marsh, due to its size, importance for migratory wildfowl and association with year-round water bodies.

Segment 2 – Siuslaw NF boundary to tip of North Spit of Coos Bay

The bayside shoreland area is within the scope of the Coos Bay Estuary Management Plan. The ocean shoreland area is basically a stabilized foredune with associated deflation plain, except for the lower portions of North Spit. The beach area is important habitat for the snowy plover, an endangered species. Remaining habitat areas are encompassed within the shorelands of the Coos Bay Estuary Management Plan.

Segment 3 – Coos Head to Cape Arago

This area contains several popular parks, a naval facility, and several scenic headlands. The shorelands boundary generally follows the boundary of public ownership.

Segment 4 – Cape Arago to Agate Beach

This is an area of rugged cliffs and steep bluffs dominated by the Seven Devils Ridge. Land is in private ownership. The shorelands boundary is determined by either the edge of the exceptional scenic area, or by the area of geologic hazard due to the steepness of the cliff and ocean bluff.

Segment 5 – Agate Beach to Cut Creek

This segment has mostly low cliffs and extensive beaches (Merchants Beach, Whiskey Run Beach) with flat bench land above (mostly dune lands in various stages of stabilization). The only prominent feature is the small headland of Fivemile Point. The shorelands boundary generally follows the edge of the ocean bluff.

Segment 6 – Cut Creek to North Jetty of Coquille

This segment comprises the extensive sandspit of the Builards Beach State Park and adjacent areas in other ownership. This area contains critical wildlife habitat (nesting area for snowy plover) and several archaeological sites. The shorelands boundary follows the outline of the state park until it intersects the Coquille River Estuary shoreline.

<u>Segment 7 – Coquille Point to Crooked Creek</u>

This segment includes an enclave on Coquille Point which is outside Bandon's city limits. This area is composed of ocean bluff, and is entirely within the coastal shorelands boundary. The section of coastline to the northern boundary of the Bandon State Park (near Crooked Creek) is partly within Bandon's Urban Growth Area. The shorelands boundary follows the edge of the bluff and exceptional scenic area.

Segment 8 – Crooked Creek to Four Mile Creek

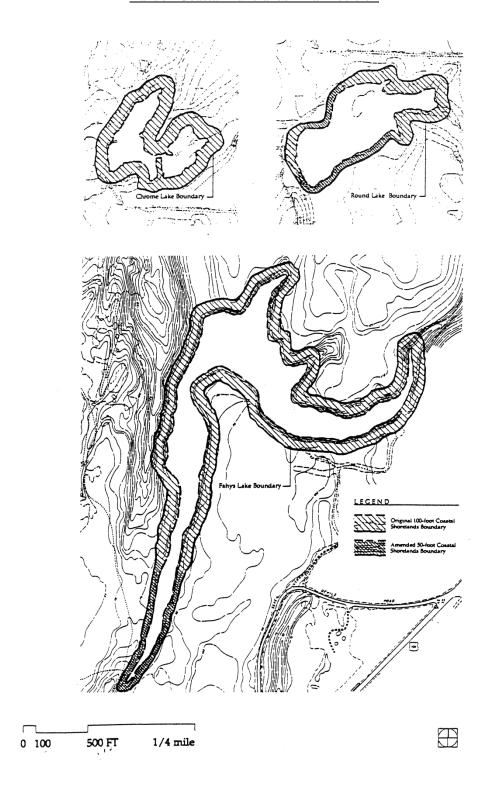
This segment comprises an extensive area of sand dunes and deflation plains which are subject to flooding. It is crossed by two minor estuaries, Twomile Creek and Four Mile Creek. Much of the area is within the Bandon State Park, which forms the boundary of the shoreland area. At the southern end, outside of State ownership, the boundary is formed by the inland extent of the HUD 100-year flood.

Segment 9 – Four Mile Creek to Curry County line

This segment comprises the New River estuary and its associated sandspit, New Lake, and the adjacent floodplain and extensive fresh-water wetlands which are considered a major marsh for the purpose of Goal #17. Snowy plover habitat is found along the sandspit. Wet meadows in agricultural use along Bethel Creek, in the vicinity of New Lake are not included in the shorelands boundary, as they are not affected by flooding due to the coastal water body, but only by stream flooding. The shorelands boundary in this segment generally follows the inland extent of flooding, due to tidal waters or significant wetland habitats. It also encompasses the shoreline of Croft Lake and its associated riparian vegetation, floodplain and significant wetlands.

Figure 3

Bandon Coastal Dunelands Final Decision



Coastal Lakes

Several coastal lakes are wholly or partially contained within the coastal shorelands boundary. Others are outside the boundary, and form separate coastal shoreland segments. In some cases, the entire boundary around the lake is based on the band of riparian vegetation which is to be protected. In other areas, an associated floodplain or significant wetland area directly associated with the coastal lake has been included in the coastal shorelands boundary. Where only riparian vegetation is used as the boundary, this is shown schematically on the inventory maps, as it is not possible at the scale employed to delineate precisely the width of this band. In any case, the riparian band varies from place to place, and it would require extensive field survey to determine its precise width. For this reason, a uniform shoreland boundary extending horizontally 100 feet from the ordinance high water mark (unless floodplains or wetlands extend further) is proposed for the coastal lakes outside the main coastal shorelands area. It is considered that 100 feet is sufficient in all situations to protect riparian vegetation except that, as shown on Figure 3, at two locations on the shore of Round Lake and one location on the shore of Fahys Lake, within the Bandon Coastal Dunelands Destination Resort Exception Area, for purposes of implementation of the destination resort as set out in the Bandon Coastal Dunelands Destination Resort Master Plan adopted as an element of this comprehensive plan, 50 feet has been determined to be sufficient. This takes into account that while riparian species do not generally extend 100 feet from a coastal lake unless a wetland exists, sometimes adjacent steep slopes, if developed, might become unstable and cause erosion or otherwise adversely affect riparian vegetation. The 100 foot boundary is intended as a site review area, within which development proposals would be examined to determine their effect on riparian resources and minimize such effects. It is not implied that any development within this area would have an adverse effect. (see Dunes and Ocean and Coastal Lake Shorelands Strategy #11).

Coastal Lakes are listed in Table 3, together with factores determining their respective shorelands boundaries, existing and potential uses, and other considerations. For more detail, see "Angler Access Point", p. T-34 and following, of the Recreation Element.

Table 3

Coastal Lakes Inventory

		Locati	on	Shoreland Boundary	Existing/Potential	
Lake	T	R	S	Determined by:	Uses	Other Considerations
Eel Lake	23	12	5,6	State Park Ownership	Fishing, boating, water supply	City of Lakeside, municipal water supply, partially in Douglas County. Steep shores
N. Tenmile Lake / S. Tenmile Lake	23	12		Riparian vegetation, floodplain, wetlands	Fishing, boating	Extensive residential development, steep shorelands, risk of sedimentation. Noxious weeds, eutrophication problems. Landslide on Templeton Arm; adjacent agricultural uses.
Schuttpelz Lake / Hall	23	13	1	Within ODNRA Volume I, Pa	Waterfowl hunting art 2	

Page 166

		Locat	ion	Shoreland Boundary Determined by: Existing/Potential Uses			
Lake	T	R	S			Other Considerations	
Lake							
Clear Lake	23	13	26	Riparian vegetation, ODNRA	Fishing	Some residential use to E., advancing sand dune to W.	
Saunders Lake / Maud Lake	23	13	34,35	Riparian vegetation, ODNRA	Fishing, boating	Extensive residential use, noxious algal growth, well water quantity problems during dry years.	
Butterfield Lake	24	13	2,3	Riparian vegetation, wetlands	Fishing	Within area proposed for residential use	
Beale Lake	24	13	3,10	Within ODNRA	Fishing	Shallow dune lake	
Unnamed Lake	24	13	11	Riparian Vegetation	Fishing	Within area proposed for recreational use	
Snag Lake	24	13	16	Within ODNRA	Waterfowl hunting	Shallow dune lake	
Teal Lake	24	13	21	Within ODNRA	Waterfowl hunting	Associated with "major marshes"	
Sandpoint Lake	24	13	21,22	Within ODNRA	Waterfowl hunting	Associated with "major marshes"	
Spirit Lake	24	13	21,28	Within ODNRA	Waterfowl hunting	Associated with "major marshes"	
Horsfall Lake	24	13	28	Within ODNRA	Waterfowl hunting	Associated with "major marshes"	
Chrome Lake	27	14	32	Riparian vegetation, wetlands	Fishing	Within area with recreational potential. Water supply for cranberry bogs.	
Round Lake	27	14	32	Riparian vegetation, wetlands	Fishing	Some residential development. Within area with recreational potential	
Fahy's Lake	28	14	5,8	Riparian vegetation,	Fishing	Some residential development. Within area with recreational potential	
Unnamed	29	15	12	2 Riparian vegetation Volume I, Part 2			

Volume I, Part 2 Page 167

		Locat	ion	Shoreland Boundary	Existing/Potential	
Lake	T	R	S	Determined by:	Uses	Other Considerations
Lake						
Bradley Lake	29	15	13	Riparian vegetation, wetlands	Fishing	Some residential development proposed. Steep bank in places.
Lost Lake	29	15	25,36	Riparian vegetation, wetlands	Fishing	Open dune encroaching
Laurel Lake	29	15	35,36	Riparian vegetation, floodplain	Fishing	Existing and proposed residential use.
Croft Lake / Unnamed Lake	30	15	10,11, 14,15	Riparian vegetation, wetlands	Fishing, boating	Existing residential use
New Lake	30	15	22	Within general shoreland boundary	Fishing	Encroachment by wetland vegetation. Association with "major marsh"

Minor Estuaries

As noted above in the shoreland identification criteria, there are several minor estuaries in Coos County; Tenmile Creek, (in the Oregon Dunes NRA) which drains the Tenmile Lakes, Twomile Creek, (south of Bandon), and Four Mile Creek/New River (which drains New Lake and Croft Lake). Each of these estuaries is classified as "Natural" in the LCDC Estuary Classification Rule, and heads of tide have been established by the Department of State Lands. Each of these minor streams possesses anadromous fish runs and both the stream and the surrounding area is basically in an unaltered state, except for some grazing land around Fourmile Creek. According to Oregon Department of Wildlife officials, bald eagle have been observed at the mouth of Tenmile Creek. New River and Tenmile Creek are both popular for fishing during salmon and steelhead runs. The estuarine shorelands around Tenmile Creek and portions of Twomile Creek and New River are in public ownership (U.S. Forest Service, Oregon State Parks Division, and Bureau of Land Management respectively). As mentioned above (shoreland identification), certain minor estuaries may possess suitable conditions for aquaculture.

None of them can be considered navigable, except by small recreational craft. New Rive and Twomile Creek both drain a considerable watershed. New river, in particular, drains the extensive Floras Creek drainage in Curry County. They play a small but significant part in anadromous fish production in the South Coast drainage basin. Certain other minor creeks, like Cut Creek (north of Bullards Beach) also have small anadromous fish runs (sea-run cutthroat) but have no truly estuarine characteristics. Fish only reach them when tides are high enough to permit passage across the beach into the mouth of the creeks. Normally, there is no zone of mixing of fresh and salt water.

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⁸² Department of State Lands (1979) "Heads of tide for coastal streams"

Current Uses

Existing uses are inventoried on the Coos County Land Use map which is based on a 1978 land use survey of the County. Apart from estuarine shorelands, which are covered in the Coos Bay and Coquille Estuary Management Plans, development in the shorelands and dunes of Coos County is almost solely low-density residential.

North of Coos bay there is some scattered residential development in the dunes NRA. The bulk of dune/ocean shoreland development, however, is located around Saunders Lake; just southwest of the Highway 101 bridge over Tenmile Creek; and just west of Highway 101 at Hauser, where there is some industrial development adjacent to the railroad tracks as well as limited residential development. Sand is mined from one location along the railroad and transported t Portland for glass manufacture. South and North Tenmile Lakes support roughly two hundred (200) lakefront homes and recreational dwellings in addition to one marina sand a privately-owned campground.

On the headlands from Coos Bay south, development occurs in isolated pockets. Housing density is greatest on the Lighthouse Beach bluffs where there are 26 dwellings. There are eight homes on the point between Sacchi and Agate Beaches and an additional pair just south of those. There are no industrial or commercial developments in this area. The beaches and dunes areas north of the Coquille River are largely undeveloped except for the older stabilized dunes, particularly in the Whiskey run area where there is a mobile home subdivision.

South of the Coquille river, development is limited within the shorelands boundary but is often quite dense (for rural areas) in the older stabilized dunes areas. The sole exception is a housing development in open sand and younger stabilized dunes between Beach Loop Road and the sea south of the southern Bandon Urban Growth Boundary. While there is some housing on Bradley Lake, the bulk of lakeside homes are found around Laurel Lake and Croft Lake. The remainder of the lakes in this part of the County are largely undeveloped.

Recreational uses and resources, including County, State and Federal parks, are shown on the Shorelands Inventory Maps and inventoried in more detail in the "Recreation", "Shorelands", and "Beaches and dunes" chapters of the Background Document. The major dune areas of current off-road vehicle (ORV) use include the Dunes NRA south of Tenmile Creek, North Spit, areas both north and south of Whiskey Run, the area west of Round and Fahys Lakes, and the North spit of the Coquille River.

Apart from a small amount of grazing at the mouth of Fourmile creek, agricultural uses in dunes areas are generally limited t the older stabilized dunes and some wet interdune areas that are devoted to cranberry growing. Some farming also takes place on land on the upper arms of Tenmile Lakes.

Apart from various State, Federal and County parks and recreational facilities, and a few other beaches with public access, there are no existing water-dependent or water-related uses in the County's ocean shorelands. The only water-dependent, water-related uses on Tenmile Lakes are the County Park and boat ramps, Camp Easter Seal and one private marina. Several public accesses exist on other coastal lakes and are inventoried on p. T-34 of the Recreation Element.

Development Pressures

The bulk of development pressures on dunes and coastal shorelands in Coos County is focused on estuaries and is addressed in the Coos Bay and Coquille River Estuary Plans. Future development pressures on dune and ocean and lake shorelands, as indicated by current use patterns, recent land use requests and rezone applications, will probably remain largely rural residential I nature with continued

demand for vacation homes, particularly on lakes. Areas likely to receive continued pressure for residential growth use are the Tenmile Lakes shorelands, the Saunders Lake area, Hauser, Seven Devils Road, and Laurel Lake. Additional areas likely to receive pressure are Round, Chrome and Fahys Lakes, the area north of Cur Creek and Four Mile Creek. Some of these areas are designated for rural residential use, while others are proposed for recreational use. However, no residential use is proposed within the Shoreland boundary, other than in committed areas, mostly around Tenmile Lake. The need for shoreland for commercial uses is difficult to predict, since it would depend on recreation trends. Higher petroleum prices and/or decreased supply could curtail growth in the recreation industry locally. On the other hand, different forms of commercial recreational development could emerge.

Potential industrial land use needs in nonestuarine dune areas and on ocean and lake shorelands are extremely limited. Potential industrial sites near Hauser are noted above and sand mining may increase, but it is unlikely that other types of industrial land use needs will develop for these areas.

Potential Uses

Shorelands

The Statewide Planning Goals require protection of major marshes, significant wildlife habitat, exceptional aesthetic resources, and historic and archaeological sites. This does not prohibit use of these areas but does require that permitted uses be compatible with maintenance of natural values. Uses such as propagation and selective harvesting of forest products consistent with the Oregon Forest Practices Act, grazing, and low-intensity water-dependent recreation are appropriate in such areas.

Uses considered appropriate in other rural shorelands follows in Table 5.

Because some land uses can only occur and others should occur adjacent to bodies of water, a certain priority must be granted them in the planning process. Water-dependent uses are defined as those uses or activities which can be carried out only on, in or adjacent to water area because the use requires access to the water body for water-borne transportation, recreation, energy production, or source of water. Water-related uses are defined as uses which are not directly dependent upon access to a water body, but which provide goods or services that are directly associated with water-dependent land or waterway use and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered.⁸³

Within urbanizable areas (areas within urban growth boundaries), Statewide Planning Goals specify that areas especially suited for water-dependent uses be protected for water-dependent recreational, commercial and industrial uses. Apart from estuarine urbanizable areas, there are only two areas which must be considered, both of them within the urban growth area of the City of Bandon. (Lakeside's UGB is coincident with the city boundaries and all other cities or urbanizing areas to which the Shorelands Goal pertains are no estuaries.)

Neither area is suitable for water-dependent use. At Coquille Point the topography prohibits development of any water access beyond a footpath; the site has exceptional scenic value; and cursory inspection of the site indicates that the bedrock is pervasively sheared, suggesting the possibility of erosion hazard and engineering difficulties.

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⁸³ Land Conservation & Development Commission, "Adopted Policy Paper on Water Dependent and Water Related Uses" (July, 1979), pp. 3 & 4.

The second area is south of Bandon's southernmost boundary to just north of Crooked Creek; (see Shorelands Inventory Map) access to the beach is steep and the area is already committed to residential development; that is, there are eighteen homes in an existing subdivision there.

Outside of urbanizable areas, water-dependent commercial and industrial uses and water-related uses are permitted only upon finding that such uses satisfy a need that cannot be accommodated within urban and urbanizable areas. Private and public water-dependent recreational uses are permitted.

Because of the general unsuitability of the ocean shore for water-dependent uses other than certain kinds of recreation, no system to determine whether a use is water-dependent or water-related is presented here beyond that implied in the above definitions of water-dependent and water-related uses.

Resolving conflicts which may arise when designating shoreland uses is easier when priorities are clear. The following general priorities for shoreland uses in the County are established in the Statewide Planning goals:

- 1. Promote uses which maintain the integrity of estuaries and coastal waters;
- 2. Provide for water-dependent uses;
- 3. Provide for water-related uses:

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- 4. Provide for nondependent, nonrelated uses which retain flexibility of future uses and do not prematurely or unalterably commit shorelands to more intensive uses;
- 5. Permit nondependent, nonrelated uses which cause a permanent or long-term change in the features of coastal shorelands only upon demonstration of public need.

Table 5⁸⁴

Rural Shorelands Uses

USE	CONDITIONS
Farm Use	As provided in ORS Chapter 215
Propagation & harvesting of forest products	Consistent with the Oregon Forest Practices Acts
Private & Public water-dependent recreation developments	As appropriate
Aquaculture	As appropriate
Water-dependent commercial and industrial uses	Only upon a finding that such uses cannot be accommodated on shorelands in urban and urbanizable areas.
Subdivisions, major and minor partitions and other uses	Only upon a finding that such uses 1. Satisfy a need which cannot be accommodated at other upland

⁸⁴ From Statewide Planning Goal 17, "Coastal Shorelands."

locations or in urban or urbanizable areas⁸⁵ and 2. Are compatible with protection of riparian vegetation and wildlife habitat.

Single family residences on existing lots.

When compatible with the objectives and implementing standards of Statewide Planning Goal 17.

Dunes

The development potential of dunes areas is constrained more by natural hazards and water resource considerations than by Goal requirements. Goal 18 does require that local government prohibit residential developments and commercial and industrial buildings on foredunes and on deflation plains that are subject to ocean flooding. The following Table 6 lists general development constraints by type of dunes area.

The three levels of suitability are indicated on the maps showing "Development Potential within Ocean Shorelands and Dunes". Policy statements are made to guide development actions within these three types of area (See pp. FF-28 and 29, Strategies 1-3). Standards for implementation of these Strategies are contained in the zoning and land development ordinance.

The importance of dunes and ocean and lake shorelands for recreation and the importance of recreation to the local economy ought to be taken into consideration when assigning land use needs and evaluating specific land use requests. ⁸⁶ While active management of natural resources in these areas does occur to some extent (harvesting of timber, agriculture), their chief value lies in maintenance of the natural values that continue to attract recreationalists from all over the nation and that contribute to the overall quality of living for Coos County Residences. (Table 6. Beaches & Dunes).

Table 6

Beaches & Dunes

Equivalent Sand Dunes Map Units

Constraints on Development

NAME Active Foredune Foredunes** Wet Deflation Plains** Beaches	SYM FDA F WDP	UNSUITABLE FOR DEVELOPMENT Highly unstable features; hazards include wave overtopping, undercutting and breaching of foredunes, ocean flooding of deflation plain. Not suitable for residential, commercial, or industrial structures.
Open Dune Sand Active Dune Hummocks Open Dune Sand Conditionally Stable Dune Complex Younger Stabilized Dunes Wet Interdunes Other Wet Deflation Plains	OS H CSC DC DS W WDP	LIMITED DEVELOPMENT SUITABILITY Development can have adverse effects on adjacent areas as well as the site itself. Hazards include wind erosion (loss of topsoil and vegetation as well as excavation around objects that interrupt wind flow); burial or partial burial of roads & structures by sand; groundwater pollution drawdown; septic system failure. Hazards and adverse effects to neighboring properties should be addressed in a site investigation report.

⁸⁵ See "Housing" (Section 4.5, this document). These concerns are addressed in the Rural Housing Exception.

⁸⁶ See "Recreation" (Section 4.8, this document).

Older Stabilized Dunes

ODS Few or no constraints. Wind erosion hazard ranges from none for well-cemented dunes to high where soils are thin and underlying sand is not cemented. Blowouts can be easily initiated in the latter case, affecting adjacent areas as well as the subject property. Minimizing disruption of vegetation and revegetation can reduce the hazard. Suitable for most uses.

^{**} only those areas subject to undercutting, overtopping or ocean flooding.

3.9 NATURAL HAZARDS

Introduction
Goal Requirements
Stream Flooding
Ocean Flooding
Flash Flooding
Critical Streambank Erosion
Wind Erosion and Deposition
Mass Movement
Earthquakes
Fire
Winds
High Groundwater and Ponding
Shoreline Erosion and Deposition

3.9 NATURAL HAZARDS

Introduction

Areas subject to natural hazards in Coos County have been identified in a series of seven maps at a scale of 1" = 2 miles, and include areas of:

- 1. Flood hazard
- 2. Flash flooding
- 3. Critical stream bank erosion
- 4. Wind erosion/deposition
- 5. Earthflow and slump topography
- 6. Rockfall and debris flow terrain

These all considered to be geologic hazards. Other natural hazards that have not been mapped but should be considered in land-use decisions include:

- 1. Earthquakes
- 2. Fire
- 3. Winds
- 4. High groundwater and ponding
- 5. Shoreline erosion and deposition

Flood hazard area mapping is based on a preliminary determination by the U.S. Department of Housing & Urban Development in conjunction with the National Flood Insurance Program. The mapping of other geologic hazards is based on <u>Environmental Geology of Western Coos and Douglas Counties</u> by the State Department of Geology and Mineral Industries.

It is apparent that most of the naturally occurring hazards of Coos County can be attributed to excess water, landform or soil structure, or a combination of these characteristics. Man aggravates these conditions in many ways by utilizing poor construction practices and altering the vegetative cover that restrains the occurrences of adverse impacts.

Goal Requirements

The Statewide Planning Goals require that the comprehensive plan provide protection of life and property from natural disasters and hazards. Specifically, Goal 7 requires that:

Developments subject to damage or that could result in loss of life shall not be planned nor located in known areas of natural disasters and hazards without appropriate safeguards.

Goal 17 (Coastal Shorelands) requires that programs be developed to "reduce the hazard to human life and property...resulting from the use and enjoyment of Oregon's coastal shorelands." The goal also requires that land use plans, implementing actions, and permit reviews "include consideration of...the geologic and hydrologic hazards associated with coastal shorelands."

Goal 18 (Beaches and Dunes) requires the reduction of "the hazard to human life and property from natural or man-induced actions" associated with beach and dune areas.

Stream Flooding

Stream flooding is the temporary inundation of low-lying areas by water overflowing the banks of a stream or river during periods of high flow volume. Locally, this condition results from heavy rainfall on hilly terrain that does not absorb water quickly. It is often aggravated by concurrent ocean flooding. Urbanization can further compound stream flooding because it decreases runoff; poorly designed storm drainage systems are incapable of offsetting this loss of natural infiltration.

Flooding can damage structures through the effects of current action, stranding water erosion, and siltation. It inflicts losses on agricultural lands by scouring topsoil, eroding stream banks, silting croplands, and killing livestock. It can threaten citizens by isolating dwellings, damaging property, disrupting transportation, and polluting or diverting water supplies.

The areas subject to inundation by large floods are termed floodplains. Floodways are the channels that convey fast-moving water during flood periods. That area which is outside the floodway but is subject to periodic flooding is called the floodway fringe. On the lower reaches of rivers such as the Coos and Coquille, where the gradient is low and there are natural levees, the floodway fringe and the floodplain are almost the same. ⁸⁷

In Coos County, almost all lowlands adjacent to rivers, streams, sloughs, and bays are subject to flood hazard. Many areas are inundated several times yearly. One year in three, for instance, the water discharge of one of the three forks of the Coquille River alone exceeds the bankfull capacity at Bear and Lampa Creeks. This capacity is exceeded every year by the combined flow of any two of the three forks. As a result, the river banks in the lower reaches of the Coquille are overtopped about three times a year on the average, according to the U.S. Army Corps of Engineers. Downstream from the City of Coquille, siltation in the channel has raised most of the river bottom above the level of the surrounding lowlands, which creates drainage problems after floods.

Land use in the floodplains of Coos County is generally agricultural with some rural residential use. Log storage occurs along Isthmus Slough. There are millponds and log decks here and in some areas of the Coquille floodplain. The seasonally flooded areas of the Coquille Valley are also important feeding and resting areas for migrating wildfowl. While most of the incorporated areas are on river or marine terraces and uplands, portions are susceptible to flooding.

In 1968, the federal government established the National Flood Insurance Program. Administered by the Department of Housing and Urban Development (HUD), the program is designed to reduce annual flood losses through more careful planning and to provide property owners with affordable insurance protection. In 1973, the Congress passed the Flood Disaster Protection Act which makes flood insurance mandatory as a condition of receiving any mortgage loan, grant, or other funding that is in any way federally connected to buy, build, or improve property located in a HUD-identified flood-prone area. This

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⁸⁷ John Beaulieu and Paul Hughes, <u>Environmental Geology of Western Coos and Douglas Counties</u> (DOGAMI, 1975), p. 59.

included direct financing from a federal agency (FHA, VA, FmHa, EDA, EPA, etc.), conventional mortgages from banks and savings and loan institutions that are regulated or insured by the Federal government.

Before an individual can purchase flood insurance, the jurisdiction in which he or she lives must become eligible for the program. Currently the county and six of eight of the incorporated areas in the county have achieved eligibility. On-going eligibility requirements include notifying the Federal Insurance Administration when boundaries are changed through annexation, maintaining records of flood-proofing and information on elevation of lower floors of new and substantially improved structures in the flood hazard areas, and submitting an annual report. Eligibility is suspended if a community fails to adequately enforce or repeal its floodplain management regulations, which must meet certain standards.

The general requirements for floodplain management regulations are that they must be legally enforceable and applied uniformly. The community must also provide that the regulations meeting the minimum criteria listed below take precedence over any less restrictive conflicting local laws, ordinances, or codes. The community must also ensure that its comprehensive plan is consistent with the objectives listed below.

At a minimum the floodplain management regulations must:

- 1. Require building permits for all proposed construction or other development in the community;
- 2. Require review of all permits to assure that sites are reasonably free from flooding.

For development in flood-prone areas, the regulations must also require:

- 1. Proper anchoring of structures;
- 2. The use of construction materials and methods that will minimize flood damage;
- 3. Adequate drainage for new subdivisions;
- 4. The location and design of new or replacement utility systems to prevent flood loss or pollution;
- 5. Including base flood elevation data in all subdivision proposals and other proposals for new development greater than 50 lots or 5 acres;

Completion of a more detailed survey of special flood hazard areas and floodway was completed in 1983. This survey is titled "Flood Insurance Study – Coos County, Oregon" and is accompanied with Flood Insurance Rate maps and Flood Boundary-Floodway maps.

This Flood Insurance Study investigates the existence and severity of flood hazards in Coos County, Oregon, and aids in the administration of the National Flood Insurance Act of 1973. This study will be used to convert Coos County to the regular program of flood insurance by the Federal Emergency Management Agency (FEMA).

Ocean Flooding

Ocean flooding is the saltwater inundation of low-lying areas by tidal action, storm surge, or tsunamis. The highest predicted tide is approximately 6 feet above mean sea level and is a factor in coastal stream flooding to the head of tidal influence. Storm surge describes the rise of sea level by as much as 4-7 feet

above prevailing tidal elevations because of low barometric pressure and wind. The impact of high tide and storm surge in combination can be particularly destructive to development in coastal lowlands as well as contributing to inland stream flooding. Identification of these areas can be a basis for making land use decisions. Tsunamis are waves generated at sea by seismic or submarine volcanic activity. The highest probable local tsunami would reach approximately 14 feet above mean sea level, though this height could conceivable by doubled through concurrence with particularly high tides and storm surge. Efficient local warning procedures can reduce the threat of injury and loss of life to recreational users of coastal beaches and coves.

Flash Flooding

Flash flooding can occur in the smaller upland stream channels in areas characterized by steep slopes exceeding 50% and having a vertical relief of 1000 feet or more. Hazard to people and property can be minimized by restriction of development in these areas and by protection of vegetation in steep watersheds. Proper engineering of roads is also recommended.

Critical Streambank Erosion

Streambank erosion (other than by flash flooding) occurs constantly on all rivers and streams in the Coos and Coquille drainage basins. Critical erosion causes a loss of land to streambank cave-ins and can initiate landslides on the adjacent uplands. Critical streambank erosion occurs most commonly along floodplains and at the base of river terraces or landslide deposits in the uplands. Valuable farmland is being lost from the floodplains in the Broadbent area, for example, and along Highway 42 several landslides are kept active by streambank erosion at their bases. The problem is naturally occurring and can be most effectively and most economically controlled by protection of bank vegetation and by careful planning, which can prevent the location of structures in areas threatened by this hazard. Careful engineering of roads is also necessary to prevent frequent need for expensive repairs. Riprap and other structural solutions are less preferred but may be useful or desirable for protection of existing roads or structures and land.

Wind Erosion and Deposits

Wind erosion and deposits are essentially coastal processes locally and, together with wave action, contribute to our changing coastline. Areas subject to the effects of wind erosion and deposition are indicated in the mapping and include the sand dune areas inland from the Coos-Umpqua beach in the Oregon Dunes National Recreation Area, the Bandon spit on the Coquille River, and the New River area.

Blowing sand can be a nuisance to recreational users and a long-term hazard to structures located in the path of migrating dunes, which can move as much as 6 feet per year. This is a hazardous factor in local planning because of an abundant sand supply, persistent winds, and an absence of stabilizing vegetation. Identification and mapping of areas subject to wind erosion and deposition can aid in planning the optional location on development. Concern should also be shown for the impact of development on currently stabilized areas. 88

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⁸⁸ See "Dunes and Ocean and Lake Shorelands" (Section 3.8, this document) for a discussion of the hazards of development in dune areas. "Stabilized areas" refers both to recently stabilized dunes and older established dunes (DS, DC, and OSC; and ODS respectively on the sand dunes maps in the Background Document, pp. 15-11 through 15-13). Older stabilized dunes generally have well-developed soil profiles. Both types are vegetated, whereas active dune forms are not.

Such development could open new deposits of loose sand causing problems on adjacent properties. Protecting existing vegetation and requiring revegetation as soon as possible when the plant cover must be disturbed are ways of reducing this hazard. Additional hazards of development in dune areas are covered in the section on dunes (Section 3.8).

Mass Movement

Mass movement is the downslope movement of rock and soil. There are several types of mass movement (often called "landslides"), depending upon the rate of movement and on the kind of material involved. These are described on the accompanying table.

Mapping for this hazard exists only on the western portion of the County and a strip along the Powers highway; the eastern and southernmost portions of the County have not been mapped. Earthflow and slump topography are generally recognized by reduced slope relative to the rest of the slope, irregular draining, irregular topography (hummocky in the case of slump topography), bowed and tilted trees, or, usually, a combination of the above features. Rockfall and debris flow terrain is usually characterized by bedrock exposures in cliffs, by accumulations of rocky debris that are not covered by plants, and by gullied, elongated slurry-like deposits of rock and soil in steep channels or on steep slopes.

Mass movement can be precipitated by the improper cutting or filling of terrain for road and other construction, removal of vegetation and root systems, increased moisture content in soils, the vibration of blasting or earthquakes, and streambank erosion. It is most commonly seen in the uplands and along sea cliffs. The rolling, grassy hills along the South Fork of the Coquille River are identified in the mapping as earthflow and slump topography, and this is most evident in the frequent slides along the highway to Powers. Development in identified mass movement hazard areas should be avoided or carefully controlled, because of the potential impacts on roads, structures, and pipelines.

Earthquakes

Earthquakes have not been addressed in the mapping as most of those experienced in the county originate on the Mendocino Fault off the northern Californian coast. Earthquakes originating there in 1922, 1923, and 1954 caused no damage here, though buildings swayed and sleepers were awakened in 1922 and shaking was observed in 1954. The potential for damage from earthquakes is greater in the Coos Bay area and southern part of the county, and damage is more likely to be a result of liquification and landslides than of faulting. Structural design incorporating seismic considerations is a good response to earthquake potential in all parts of the county. This is especially critical in the Coos Bay/North Bend area because of the greater instability of the older stabilized dunes, former marshes, and fill material that much of the development occurs on. High occupancy and critical use facilities such as schools and hospitals should be located in areas of solid ground conditions.

Fire

Fire poses a major hazard to development in forested areas of the county and especially to the residential development in brushy coastal areas such as the Bandon area where there are extensive stands of highly inflammable gorse and broom. The problem is often compounded by inadequate roads serving residential developments in forested areas.

Winds

Persistent winds are a feature of much of Coos County and are of particular importance as a potential hazard to the siting of mobile homes. Accordingly, the State Department of Commerce enforces siting and tie-down regulations that govern the placement of mobile homes.

High Groundwater and Ponding

High groundwater and ponding are most common in the coastal lowlands, marine terraces, inland floodplains, and some areas of Coos County's sand dunes. Uneven settling, flooding of basements, floatation of septic tanks, and septic system failure are common consequences of development in these areas. Potential for pollution of domestic water sources is also high. Since public health is at issue, encouraging development of public water and/or sewer systems where dense development already exists in such areas is desirable.

Shoreline Erosion and Deposition

Beach and headland erosion occur along the entire Coos County coastline. These hazards are addressed in greater detail in Section 3.8, "Dunes and Ocean and Lake Shorelands." Areas of beach erosion and deposition and coastal headland erosion rates are shown on the map accompanying that section.

Wave erosion poses a major hazard to coastal development. Wave energy is highest during winter months, and erosion is consequently greater then. Broad summer beaches become narrow and steep as vast amounts of sand are moved offshore. Development that appears to be a safe distance from the sea becomes threatened when a particularly powerful series of storms pound the coast, as in the winter of 1976-1977.

The pattern of erosion of upland areas by waves depends on the geology. Sheared or crumbly rock leads to earthflow and slumping with rapid rates of erosion. Development in such areas can be dangerous. Wave erosion of hard bedrock forms cliffs and erosion rates are slow (except along faults or joints); when significant erosion does occur, it is be the breaking off of large chunks of rock. Hazard, however, is slight and moderate setbacks are generally considered adequate protection. Removal of driftwood and rock debris from the bases of cliffs and areas where mass movement is occurring probably increases erosion rates significantly.

Sand is constantly being moved by wave and current action. Interruption of this movement can cause formation of new beaches, as at Bastendorff following jetty construction. This generally occurs at the expense of other areas – existing beaches may get smaller or disappear altogether and headland erosion may increase. Placement of large rocks (riprap) and construction of protective structures like seawalls (which are parallel to the coast) and groins (rigid structures which project outward from the shore), then, should be discouraged since they have a negative impact on the properties of others by typing up sand that would have been deposited elsewhere and in some instances by removing a source of beach sand. They may also increase future costs to the public; on the East Coast and in California increased threat to coastal developments have lead to a hue and cry for publicly-funded coastal protection projects, many of which seem to be fraught with unforeseen impacts. One means of dealing with beach erosion holds much promise: beach nourishment (supplying sand, generally from dredging projects or from well offshore) is being tried by the Army Corps of Engineers in the Miama, Florida, area and elsewhere. The mining and removal of sand from beaches also increases erosion and should be carefully controlled.

3.10 AIR, LAND, AND WATER QUALITY

Goal Requirements

Inventory

Air Quality

DEQ Programs PSD Standards

Noise Control

Authority Standards

Solid Waste

Authority

Existing Disposal Sites Proposed Disposal Program

Water Quality

Standards and Plans

On-site Sewage Disposal Waste Discharge Permits

Plan Approval for Waste Treatment Facilities

Certification of Water Quality Standards Compliance

3.10 AIR, LAND & WATER QUALITY

Goal Requirements

Statewide Planning Goal 6 requires that:

All waste and process discharges from future development, when combined with such discharges from existing development, shall not threaten to violate, or violate applicable state or federal environmental quality statures, rules and standards.

Inventory

Current air, land and water quality conditions and existing waste discharge permit-holders in the County are inventoried in the "Air, Land and Water Quality" section of the Background Document. Assessments from the <u>Statewide Water Quality Management Plan</u> (DEQ, 1976) and additional information on Federal and State Standards are also provided.

Air Quality

DEQ Programs

Relevant programs and actions of the Air Quality Division of the Department of Environmental Quality (DEQ) are listed and described below:

Notice of Construction (NC) – Certain types of air contaminant sources are required to file a notice of intent to construct application. A local statement of compatibility with the comprehensive plan is required. Not all sources requiring NC's need an Air Contaminant Discharge Permit.

Air Contaminant Discharge Permit (ACDP) – Certain types of air contaminant sources are required to have an ACDP before operation of that source can occur. Economic as well as environmental factors are considered in the drafting of the ACDP. A local statement of compatibility is required for completion of the permit.

Indirect Source Construction Permit (ISCP) – Indirect air contaminant sources are those which in and by themselves do not cause air pollution but which cause concentrations of pollution by attracting motor vehicle activity (e.g. highways, airports, parking facilities). Again, a local statement of compatibility is required.

Prevention of Significant Deterioration (PSD) – PSD regulations are designed to prevent significant deterioration of air quality in "clean air" areas of the state while allowing reasonable growth to occur in areas classified as Class II or Class III. Under Federal regulations all areas of the state are classified as Class II except for certain natural resource areas, such as the Kalmiopsis Wilderness Area, which are mandatory Class I areas.

PSD Standards

Under the classification scheme developed in 1974, by the Environmental Protection Agency (EPA) and modified in 1977 by amendments to the Clean Air Act, all of Coos County is in a Class II PSD (Prevention of Significant Deterioration) area. Moderate deterioration of air quality is permitted in such areas. The maximum amount of allowable increase in pollutants in Class II areas is listed below:

Table 1. Maximum allowable increase in pollutants in Class II PSD areas 89

Maximum Allowable (Micrograms per cubic meter)
19
37
20
91
512

In Coos County the total maximum allowable increases listed above are considered "available"; that is, under current laws and regulations, future commercial and industrial development may be permitted to degrade air quality to the full extent listed above. 90 Since no large scale industrial developments (100) tons/year or more TSP/SO2 emission sources) are proposed in the plan, it does not appear at this time that the above standards will be violated within the planning period.

That is, it has been determined by using the guidelines in the Department of Environmental Quality (DEO) Publication, Handbook for Environmental Quality Elements of Oregon Local Comprehensive Land Use Plans (Air Quality Section) that the Coos County Comprehensive Land Use Plan does not appear to conflict with Class II PSD air quality standards.

Noise Control

Authority

In 1971 the Oregon Legislature adopted the Noise Control Act (ORS Chapter 467) which authorized the DEQ, through the Environmental Quality Commission (EQC), to adopt and enforce statewide standards of noise control (OAR 340-35).

Standards

Standards adopted by the EQC are found in OAR 340-35-005 through 25-100/ The following summaries are from the DEQ Handbook cited above, pp. D-15 through D-16.

- 1. All new motor vehicles sold within Oregon must meet maximum allowable decibel limits. Vehicle categories include automobiles and light trucks, motorcycles, buses, snowmobiles and medium and heavy trucks. Racing vehicles are exempt from this rule (OAR 340-35-025).
- 2. In-use motor vehicle emission standards are established and referenced to moving and stationary monitoring procedures. Road vehicles and off-road recreational vehicles are included in this rule. Ambient standards for off-road recreational vehicles impacting adjacent noise sensitive property is also included in this rule (OAR 340-35-030).

⁸⁹ Department of Environmental Quality (DEQ), Handbook for Environmental Quality Elements of Oregon Local <u>Comprehensive Plans</u> (1978), p. C-51. ⁹⁰ DEQ (1978), p. C-24.

3. Noise sources defined as industry and commerce must meet ambient noise standards measured at the nearest noise sensitive property. Noise sensitive property is defined as residences, schools, churches, libraries and other places where people sleep. The definition for industry is very broad. However, some activities are exempted for reasons of lack of control technology, lack of an adequate standard or preemption by federal regulations (OAR 3400-35-035).

The following lists industrial and commercial sources presently exempted from DEQ noise control standards. Some of these sources are under consideration for future noise control rules:

- a. Emergency equipment
- b. Warning devices
- c. Vehicle complying with OAR 340-35-030
- d. Some railroad activities
- e. Bells, chimes, and carillons
- f. Sports and entertainment events, including motor vehicle racing events.
- g. Construction activities
- h. Maintenance
- i. Lawn care and snow removal
- j. Some aircraft operations
- k. Motor vehicle auxiliary equipment complying with OAR 340-35-030
- 1. Agricultural activities.

Industrial and commercial noise standards are based upon protection of speech communication during the daytime (7 a.m. to 10 p.m.) and protection of sleep at night (10 p.m. to 7 a.m.). The standards are written in statistical terms over a hone hour sampling period. This allows some variations in the noise level over time, but limits the statistical distribution of the measured noise throughout the one hour sampling period.

Solid Waste

Authority

The Resource Conservation and Recovery Act of 1976 (Public Law 94-580) provides for the protection of health and the environment, promotes conservation of material and energy resources, and prohibits open dumps. The Oregon Solid Waste Plan, mandated by ORS 459, is a compilation of regional plans and State policy and is required to be in conformance with Federal laws and regulations. All areas of the State were to have submitted locally adopted solid waste disposal plans to DEQ by 1978.

EPA is the lead Federal agency regulating management of solid waste. The DEQ develops and adopts standards and plans in accordance with Federal regulations. In Coos County, the County has assumed responsibility for solid waste disposal. Coos County has been designated as one planning area and the County has been designated as the planning and implementing agency. On December 5, 1978, the Board of Commissioners adopted the Coos County Solid Waste Management Plan, 1978-1994.

The Coos County Solid Waste Management Plan specifies that the County will evaluate the feasibility of resource and energy recovery for the County in 1984; that the County will consider proposals from the private sector to manage solid waste disposal that will achieve the same objectives as the County's management plan (as long as DEQ requirements are also met); and that the provisions of the Coos-Curry Solid Waste Management Plan 1975-1995 (1975) which are not in conflict with the Coos County Solid Waste Management Plan are adopted as part of the latter plan.

Existing Disposal Sites

The existing conditions described in the Coos <u>County Solid Waste Disposal Plan</u> have since changed, as shown below.

Table 2.

Existing Solid Waste Disposal Sites

SITE	DESCRIPTION
DILL	DESCRII HON

Beaver Hill All municipal solid waste in the County is now handled at this regional

landfill. Two 50-ton capacity Consumat incinerators with a backup system of

two 12.5 ton incinerators are located on the site.

Bandon This former municipal site is now used for disposal of incinerator ash from the

Beaver Hill site and for other non combustibles such as sheetrock and

construction waste.

Joe Ney This former municipal site is now leased by a private firm, and is a modified

industrial landfill used primarily for disposal of construction debris.

Powers This open-burning dump was granted a variance to the requirements of Public

Law 94-580 to allow it to remain open until June 30, 1984

The Beaver Hill site was chosen after consideration of several alternatives, including the former Myrtle Point site, the Bandon site, and the North spit of Coos bay. The advantages of the Beaver Hill site are its central location, the lack of nearby development that would otherwise conflict with the operation, and the site's capacity, soils and other suitability factors. The capacity of the Beaver Hill site is expected to be sufficient to meet the County's needs through and beyond the comprehensive planning period.

Water Quality

Standards and Plans

The EQC and DEQ implements such rules and standards as are deemed necessary to insure that beneficial uses of public waters are not impaired by inadequate water quality and to control on-site sewage disposal so as to prevent water pollution, health hazards and nuisance conditions (ORS 468 and ORS 454).

Standards are contained in the Statewide Water Quality Management Plan (OAR 340, Division 41) and in the Subsurface Sewage Disposal Rules (OAR 340, Division 71, 74, and 75). All other DEQ rules, procedures, etc, are contained in OAR chapter 340.

On-Site Sewage Disposal

Construction of systems which dispose of sewage on the site where it is generated is controlled by DEQ through a permit system. The mandatory state permit requirements are set forth in OAR 340. In Coos County, permits may be obtained through the local DEQ office in Coos Bay. In order to comply with existing regulations, the County must require suitable evidence of acceptable sewage disposal (either sewer system hookup or on site permit suitability) prior to building permit issuance. Land use clearance by the County is presently required by DEQ prior to on-site sewage disposal permit issuance.

Waste Discharge Permits

DEQ issues permits for the construction and operation of new or modified sewage and industrial waste treatment facilities and related disposal of effluent. These permits must meet applicable Federal standards and guidelines (section 402 of PL 92-500 and related Federal regulations) as well as the applicable portions of the State Water Quality Management Plan.

Plan Approval for Sewage & Industrial Waste Treatment Facilities

In addition to the above requirements, DEQ approval of engineering reports, facility plans and construction plans is required prior to construction of new or expansion of existing waste control, treatment, transport, and disposal facilities.

Certification of Water Quality Standards Compliance

DEQ reviews all applications for Federally issued permits by non-Federal applicants for actions in or adjacent to a waterway in the State which may result in a discharge of pollutants to the waterway. In order for the Federal permit to be issued, DEQ must certify that water quality standards will not be violated. Such certification is granted after public notice (Section 401, PL 92-500).

3.11 OCEAN RESOURCES

Goal Requirements

Regulatory Agencies

Current Uses

Projected Uses

Pacific Whiting Fishery
Salmon Ranching
Oil and Gas Exploration
Port Expansion

3.11 OCEAN RESOURCES

Goal Requirements

The intent of Statewide Planning Goal 19 is to "conserve the long-term values, benefits and natural resources of the nearshore ocean and the continental shelf":

All local...plans policies, projects and activities which affect the territorial sea shall be developed, managed and conducted to maintain, and where appropriate, enhance and restore, the long-term benefits derived from the nearshore oceanic resources of Oregon...(S)uch plans and activities shall give clear priority to the proper management and protection of renewable resources.

The goal requires that inventory information be gathered in response to specific actions or projects:

As local governments...implement plans or carry out actions, projects or activities related to or affecting ocean resources, they shall develop inventory information necessary to understand the impacts and relationship of the proposed activity to continental shelf and nearshore resources... The inventory shall be sufficient to describe the long-term impacts of the proposed action on resources and uses of the continental shelf and nearshore ocean.

Regulatory Agencies

The following agencies have regulatory. Planning or review authority with respect to ocean resources:

- U.S. Fish and Wildlife Services reviews proposals for work and activities in or affecting navigable waters, including Section 10 and Section 404 permits.
- National Marine Fisheries Service Regulates fisheries.
- Bureau of Land Management Manages offshore leasing for oil and gas development.
- National Oceanographic and Atmospheric Association Administers CZM Act through the Office of Coastal Zone Management; can designate marine sanctuaries on the continental shelf.
- Environmental Protection Agency Controls discharge of pollutants into navigable waters.
- Army Corps of Engineers Issues permits for development proposals in navigable waters.
- Federal Power Commission Regulates energy facility siting, pipelines.
- U.S. Coast Guard (Department of Transportation) Regulates navigation and safety on the high seas, including regulating and monitoring structures on the continental shelf for safety and oil spills.
- Office of Pipeline Safety (Department of Transportation) Reviews and approves proposals for construction of offshore pipelines.
- Division of State Lands Administers State's fill and removal permit law, manages state-owned waterways; oil spill regulation.

- Oregon Department of Economic Development Port planning; administers revolving loan fund for port development.
- Oregon Department of Geology and Mineral Industries Issues permits for oil and gas exploration.
- Oregon Department of Environmental Quality Regulates water quality
- Oregon Department of Fish & Wildlife Regulates fisheries. Programs include propagation of fish, protection and enhancement of the environment, control of fish harvest, and management of various fish and shellfish stocks. Reviews such permits as the following: DSL fill-removal, marine event, ocean shore activity, waste discharge, and Section 10 and Section 404 permits.
- State Marine Board Regulates boating; plans and recommends development of boating facilities.
- State Highway Department Has jurisdiction over Pacific Ocean shore; has permit review authority for improvements in the beach zone.
- State Department of Energy Regulates siting, construction and operation of energy facilities, including thermal power and nuclear installations.

Current Uses

Current uses affecting ocean resources include commercial fishing, transportation, navigation, dredge spoils, waste discharge, sport fishing and other recreational activities, such as boating, scuba diving and clamming.

The average commercial lands for the Coos County fishing industry from 1973-1975 are listed below:

<u>Table 1.</u>

<u>Five-year average landings (in thousands of pounds)</u>

Species	Average Landings
Salmon	2,979
Tuna	2,371
Groundfish	4,062
Crab	843
Shrimp	5,670
All others	95
Total	16,020

Source: Oregon Department of Fish and Wildlife. From <u>CEDS 1979-80</u>, Coos-Curry-Douglas Economic Improvement Association (1979), p. VII29.

Spoils from the maintenance dredging of the Coos Bay channel entrance are currently dumped at an offshore location indicated in Figure 1 below. The 116-acre EPA approved site is located approximately 1.5 miles west-southwest of the bay entrance at a depth of 45-60 feet. The site consists of a shifting sand bottom and is considered inexhaustible.⁹¹

The Menasha pulp mill on North Spit holds a DEQ permit for ocean dumping of its wastes through a pipeline from a holding pond to a discharge area 4,000 feet offshore.

Discharges into rivers and bays may also have an impact on ocean resources. Local fish processors have been required to screen solid wastes from their discharges in order to meet Federal standards. Requirements for further treatment are anticipated and could result in reduced nutrient levels in waters entering the ocean from the estuaries. For further discussion of discharges into rivers and estuaries, see "Water Quality" (section 3.6) and the Coos Bay and Coquille estuary plans.

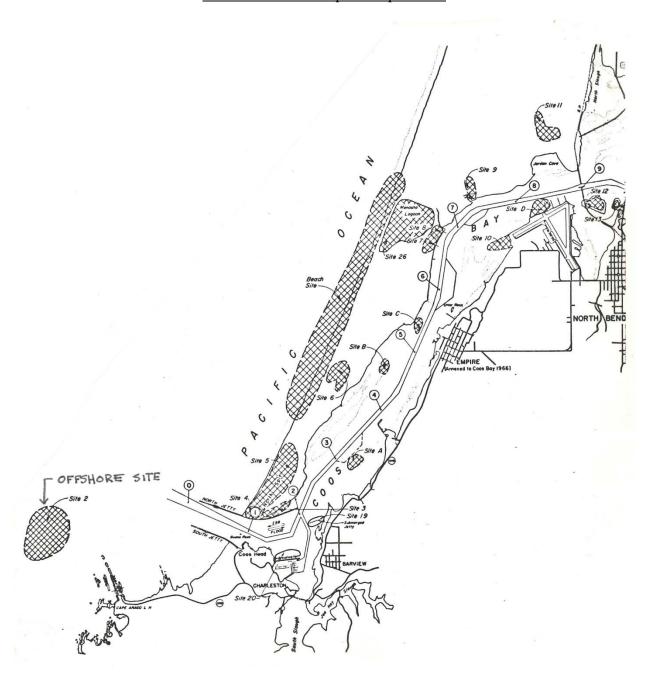
Some recreational activities have little, if any, impact on ocean resources (sailing, scuba diving and surfing, for example). Others rely directly on those resources. Sport fishing in Oregon in 1975 accounted for about ¼ of the total number of salmon caught on the open ocean. Recreational fishing for groundfish and smelt also occurs and razor clamming on ocean beaches is popular.

⁹² Oregon Department of Fish & Wildlife, <u>1975-76 Biennial Report</u> (1976), p. 17.

⁹¹ Army Corps of Engineers, Final EIS, Channel Maintenance Dredging, Coos Bay (1976), p. 1-8.

Figure 1.

Location of Offshore spoils Disposal Site



From <u>Draft Supplment, Coos Bay Deep Draft Navigation Project EIS</u>, Army Corps of Engineers, 1975, p. 1-4.

Projected Uses

Current uses are expected to continue through the planning period. Additional uses which could affect ocean resources and which could occur during the planning period are discussed below.

Development of the Hake (Pacific Whiting) Fishery

According to a recent study, the estimated stock abundance of Pacific whiting is greater than for any other fishery resource on the Pacific coast outside of Alaska. 93 This resource represents a considerable opportunity for the domestic fishing industry since the passage of the Fishery Conservation and Management act of 1976 which authorizes the State Department to allocate fishery resources to foreign countries only after allocation to U.S. fishermen. Interest in development of the resource has quickened since passage of the Act for several reasons:

- Its abundance and high catch rate per unit of trawling effort;
- The act has forced reductions in foreign fleet allocations and catches, thereby removing the U.S. fleet's reluctance to challenge the foreign fishing effort on the Pacific Coast;
- In the recent years of a foreign fishery on Pacific Whiting, these fish have been imported to the U.S. as Whiting via Mexico and Canada, establishing a market and a general pattern of use;
- Resource protection zones (200 mile law) have been adopted around the world to protect and conserve overexploited fish resources. The demand for fish has not lessened, creating an opportunity for U.S. demand for fish has not lessened, creating an opportunity for U.S. utilization of Pacific Whiting, making it possible to market a product that meets consumers' demand for fish that are of lower cost than many others now available.⁹⁴

According to two fish surveys, the area of greatest abundance of Pacific Whiting is between Cape Blanco and Cape Foulweather (see background document, pp. 16-17 through 16-18), coos Bay lies midway between these two points. The current optimum sustainable yield is 175,500 metric tons. The fishery is managed by the National Marine Fisheries Service.

Salmon Ranching

Salmon Ranching began in the area in 1977 on Coos Bay. The impacts on ocean resources have not yet been determined. While an increase in salmon stocks is generally expected (to the benefit of the sport and commercial fisheries), opponents argue that ranch salmon, which are genetically more homogeneous, may compete with wild stocks for a limited amount of resources on the open ocean, to the detriment of the wild stocks. Ranching is in its infancy on this coast and it will probably be several years until the impacts can be determined. Salmon ranching is regulated by the Oregon Department of Fish & Wildlife.

Black Sand Mining

Deposits of heavy mineral sands offshore may become economically minable during the planning period. The technology already exists for mining these placer deposits, the offshore equivalents of the black sands

⁹³ Coos-Curry-Douglas Economic Improvement Association (CCDEIA), <u>Comprehensive Economic Development</u> <u>Strategy</u>, 1979-80 <u>Action Program</u> (1979), p. VII-32. 94 CCDEIA, p. VII-31.

that were mined for gold at the turn of the century. Platinum, zircon and chromium are also present in these sands. The location of potentially commercial sites is given on p. 16-23 of the Background Document.

Potential impacts on ocean resources include resuspension of sediments with a possible temporary increase in nutrient levels, and temporary or permanent disruption of bottom-dwelling communities.

Offshore mining is regulated by the Bureau of Land Management.

Oil and Gas Exploration

The potential impacts of oil mining on ocean resources are comparatively well documented and include smothering of life in the benthic and littoral zones. The industry continues to advance in safety technology as depletion of onshore resources places greater pressure on mining offshore deposits. The leasing of offshore lands is managed by the Bureau of Land Management.

Port Expansion

Expansion of moorage facilities can potentially increase the impact on navigation and on sport fisheries and certain commercial fisheries. These impacts are assessed and regulated by a variety of State and Federal agencies. Navigation is regulated by the U.S. Coast Guard and by the State Marine Board. The fisheries are regulated through the National Marine Fisheries Service and the Oregon Department of Fish and Wildlife.

3.12 SOUTH SLOUGH ESTUARINE SANCTUARY

3.12 SOUTH SLOUGH ESTUARINE SANCTUARY

The South Slough Estuarine Sanctuary is a national estuarine sanctuary created under Section 315 of the Coastal Zone Management Act of 1972 (PL 92-583), as amended. Interested persons should refer to the Management Plan for the Sanctuary and for a complete discussion of the Sanctuary, its objectives and program.

Coos County supports the Sanctuary and protects its natural resources through the South Slough Zoning District.

4. SOCIO-ECONOMIC INVENTORY AND ASSESSMENTS

- 4.1 Demographics
- 4.2 Labor Force and Employment
- 4.3 Existing Land Use and Interim Zoning
- 4.4 Industrial and Commercial Lands
- 4.5 Housing
- 4.6 Public Facilities and Services
- 4.7 Transportation
- 4.8 Recreation
- 4.9 Energy

4.1 DEMOGRAPHICS

4.1 DEMOGRAPHICS

4.1.1 Introduction

The Coos County Comprehensive Plan contains demographic and population information which is a planning tool for interpreting the developing population trends relating to Coos County and its incorporated cities.

The data compiled for this Plan Element came from publications by the United States Department of Commerce, Bureau of the Census, Oregon Employment Department (1996 Regional Economic Profile), State of Oregon's Office of Economic Analysis (Long-Term Population and Employment Forecasts for Oregon), and Portland State University's Center for Population Research and Census. These data sources have been publishing population reports since 1850 and are considered to be a valid and consistent source of population information. The Bureau of Census designated Portland State University (PSU) as an official source of population estimates. Since 1941 PSU has provided an annual July 1st, certified population estimate for Oregon counties and cities.

4.1.2 History

The State of Oregon had a population of approximately 52,000 in 1860, which accounted for a small percentage of the total population in the United States. After the Civil War, the 50 year westward migration caused the population of Oregon grow to over 500,000. The population in 1940 for Oregon had exceeded one million. The next 30 years saw the population again double to reach two million and counted for 1% of the total United States population. By 1990 the population of Oregon had reached 2,842,321 which is still 1% of the total United States population.

Coos County's growth is compared with other counties in Oregon from 1950 to 1990 in Table 1.

<u>Table 1</u>
Population for the Counties and State

			Population		
County	1950	1960	1970	1980	1990
-					
Baker	16175	17295	14919	16143	15317
Benton	31570	39165	53776	68211	70811
Clackamas	86716	113038	166088	241919	278850
Clatsop	30776	27380	28473	32489	33301
Columbia	22967	22379	28790	35646	37557
Coos	42265	54955	56515	64067	60273
Crook	8991	9430	9985	13091	14111
Curry	6048	13983	13006	16992	16992
Deschutes	21812	23100	30442	62142	74958
Douglas	54549	68458	71743	93748	94649
Gilliam	2817	3069	2342	2057	1717
Grant	8329	7726	6996	8210	7853
Harney	6113	6744	7215	8314	7060
Hood River	12740	13395	13187	15835	16903
Jackson	58510	73962	94533	132456	14689
Jefferson	5536	7130	8548	11599	13676
Josephine	26542	29917	35746	58855	62649
Klamath	42150	47475	50021	59117	57702
Lake	6649	7158	6343	7532	7186
Lane	125776	162890	215401	275226	282912
Lincoln	21308	24635	25755	35264	38889
Linn	54317	58867	71914	89495	91227
Malheur	23223	22764	23169	26896	26038
Marion	101401	120888	151309	204692	228483
Morrow	4783	4871	4465	7519	7625
Multnomah	471537	522813	554668	562640	583887
Polk	26317	26523	35349	45203	49541
Sherman	2271	2446	2139	2172	1918
Tillamook	18606	18955	180334	21164	21570
Umatilla	41703	44352	44923	58861	59249
Union	17962	18180	19377	23921	23598
Wallowa	7264	7102	6247	7273	6911
Wasco	15552	20205	20133	21732	21683
Washington	61269	92237	157920	245808	311554
Wheeler	3313	2722	1849	1513	1396
Yamhill	33484	32478	40213	55332	65551
Total Oregon	1521341	1768687	2091533	2633105	2842321

Source: U.S. Census Bureau

Coos County's population increased 42.6% during this 40 year period. Compared to other coastal counties, Coos County's increase was 21.8% less than the increase of 64.4% which Curry County had and was 28.9% higher than the County of Tillamook which saw a 13.7% increase.

Graph #1 shows the population changes for Coos County starting in 1980. The decline began in 1981 and continued to drop until 1988 which shows a slow and steady increase in population. The population in 1995 is not at the county Coos County began within 1980. The projected numbers for the year 2000 (63,612) is less than what the figures were in 1980 (64,047).

Table #2 depicts each county's percentage which comprises the State's total population and illustrates Coos County's fluctuating population based on the economic decline of its forest production and fishing industries. Table 3 shows the population break-down by gender and age.

<u>Table 2</u>
Percent Population Change for the Counties and State

		Pop	oulation	
County	1950-60	1960-70	1970-80	1980-90
Baker	6.9	-13.7	8.1	-5.1
Benton	24.1	37.3	26.8	3.8
Clackamas	30.4	46.9	45.7	15.3
Clatsop	-11	4	14.1	2.5
Columbia	-2.6	28.6	23.8	5.4
Coos	30	2.8	13.3	-5.9
Crook	4.9	5.9	31.1	7.8
Curry	131.2	-7	30.6	13.7
Deschutes	5.9	31.8	104.1	20.6
Douglas	25.5	4.8	30.7	1
Gilliam	8.9	-23.7	-12.2	-16.5
Grant	7.2	-9.4	17.4	-4.3
Harney	10.3	7	15.2	-15.1
Hood River	5.1	-1.6	20.1	6.7
Jackson	26.4	27.8	40.1	10.5
Jefferson	28.8	19.9	35.7	17.9
Josephine	12.7	19.5	64.6	6.4
Klamath	12.6	5.4	18.2	-2.4
Lake	7.7	-11.4	18.7	-4.6
Lane	29.5	32.2	27.8	2.8
Lincoln	15.6	4.5	36.9	10.3
Linn	8.4	22.2	24.4	1.9
Malheur	-2	1.8	16.1	-3.2
Marion	19.2	25.2	35.3	11.6
Morrow	1.8	-8.3	68.4	1.4
Multnomah	10.9	6.1	1.4	3.8
Polk	0.8	33.3	27.9	9.6
Sherman	7.7	-12.6	1.5	-11.7
Tillamook	1.9	-4.9	17.4	1.9
Umatilla	6.4	1.3	31	0.7
Union	1.2	6.6	23.5	-1.4
Wallowa	-2.2	-12	16.4	-5
Wasco	29.9	-0.4	7.9	-0.2
Washington	50.5	71.2	55.7	26.7
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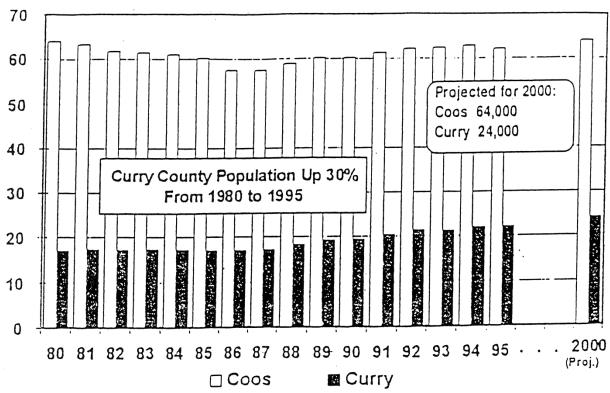
Volume I, Part 2 Page 200

		Pop	oulation		
County	1950-60	1960-70	1970-80	1980-90	
Wheeler	-17.8	-32.1	-18.2	-7.7	-
Yamhill	-3	23.8	37.6	18.5	
Total Oregon	1768687	2091533	2633105	2842321	

Source: U.S. Census Bureau

Graph 1

Coos County Population Declines in 1995; Still Up By 8% From Mid-80's Slump



Source: Regional Economic Profile, Oregon Employment Division, 1996.

Table 3

Population Estimates for Coos County by Age and Gender: July 1, 1996

Age	Numbers
0-4	3489
5-9	3902
10-14	4371
15-17	2756
18-19	1790
20-24	4024
25-29	3035
30-34	3563
35-39	4424
40-44	4676
45-49	4540
50-54	3433
55-59	3174
60-64	2842
65-69	3332
70-74	3133
75-79	2369
80+	2847
Total	61700

Source: Portland State University (Population Estimates for Oregon: July, 1996).

Migration trends along the Oregon Coast in earlier decades largely followed the demand for timber and increasing seafood processing. Major reasons for this relatively high growth during the 1940s and 1950s were highway improvements and increased timber production which was generated by World War II and the post-war housing boom. The paper products industry added plants during this decade. The 1970s saw an increase in population as natural resource based industries prospered and as retirement began to supply an increasingly important component of population growth. The 1980s again saw a decline in population due to the restriction in timber production, automation or closure of timber mills and declines in some of the commercial fishing industry.

Coos County has seven incorporated cities which are Bandon, Coos Bay, Coquille, Lakeside, Myrtle Point, North Bend, and Powers. Tables #4 and 4a show the census from 1950 to 1996 which reflects 46 years of fluctuating population in this County. The City of Lakeside showed an increase in residents starting in 1988; while the population of Powers began decreasing between 1980 and 1986 and continued to do so until 1996. The unincorporated areas of the County also showed a decrease starting with 1994 and continuing to 1996; this decrease could be attributed to annexation by cities. These tables reflect areas whose economic base are dependent on timber and farming, as well as the fishing industry.

The state economist projection for Coos County and the cities within start in 1996 and go to 2020 (table 4b). This projection shows the County as a whole growing by 7,114 residents within the next 24 years.

<u>Table 4</u>
1950-1995 Population County/Cities

County/Cities	1950	1960	1970	1980	1986	1988	1990	1991	1992	1993	1994	1995
COOS	42265	54955	56515	64047	57500	58800	60273	62100	62100	62500	62800	62100
Bandon	1681	2185	2247	2311	2380	2490	2224	2335	2390	2425	2430	2610
Coos Bay	10440	13575	13960	16025	14330	14220	15076	15065	15150	15170	15450	15430
Coquille	2887	3754	3861	4481	4045	4175	4121	4095	4115	4185	4195	4230
Lakeside	1036	1347	1385	1453	1395	1425	1437	1445	1470	1530	1615	1630
Myrtle Point	1867	2428	2497	2859	2580	2595	2712	2680	2715	2740	2740	2740
North Bend	6610	8594	8838	9779	8770	8850	9614	9730	9760	9800	9840	9855
Powers	492	640	658	819	740	760	682	680	680	685	680	680
Unincorporated	17252	22432	23069	26320	23260	24285	24407	25170	25820	25965	25850	24925

Source: State Economist, January 1997.

<u>Table 4a</u>

Percentages of the County's Population

City	1950-1970	1980	1986	1988	1900	1991	1992	1993	1994	1995	% Avg.
Bandon	3.98	3.6	4.1	4.2	3.7	3.8	3.8	3.9	3.8	4.2	3.9
Coos Bay	24.7	25.0	24.9	24.2	25.0	24.6	24.4	24.3	24.6	24.9	24.7
Coquille	6.83	7.0	7.0	7.1	6.8	6.7	6.6	6.7	6.7	6.8	6.8
Lakeside	2.45	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.6	2.6	2.4
Myrtle Point	4.42	4.5	4.5	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.4
North Bend	15.65	15.3	15.3	15.1	16.0	15.9	15.7	15.7	15.6	15.9	15.6
Powers	1.16	1.3	1.3	1.3	1.1	1.1	1.1	1.1	1.1	1.1	1.2
Total in Cities	59.18	59.0	59.5	58.7	59.5	58.9	58.4	58.5	58.8	59.9	59.0
Unincorporated Area	40.82	41.0	40.5	41.3	40.5	41.1	41.6	41.5	41.2	40.1	41.0
Total County	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Percentage figures are based upon the population data in Table 4 and are rounded to the nearest one-tenth of one percent.

Table 4b 1996 - 2020 PROJECTED POPULATION 95

COUNTY/	1996	2000	2005	2010	2015	2020
Cities						
COOS	62399	63612	64950	66338	67870	69513
Bandon	2791	2826	6041	3265	3503	3754
Coos Bay	15696	16001	16337	16687	17072	17485
Coquille	4273	4356	4448	4543	4647	4760
Lakeside	1648	1822	2016	2218	2435	2657
Myrtle Point	2761	2815	2874	2935	3003	3076
North Bend	9997	10191	10406	10628	10873	11137
Powers	703	717	732	747	764	783
Unincorp.	24530	24884	25096	25315	26673	25861

4.1.3 Composition of Coos County's Population

An examination of the population data regarding characteristics of age, race, income and educational level can provide an understanding of the composition of Coos County's population.

Coos County's population growth during the 1980's occurred among persons of retirement age, 65 years and above. While the total population of Coos County fell by about 6% in that decade, the number of persons 65 and older rose by 35%. The proportion of Coos County's population in the 65+ age group increased from 12% to 17% over the ten-year period. On the other hand, the number of persons under the age of 18 in Coos County dropped by 17%, while the number of persons between the ages of 21 and 24 declined by 41%.

Since 1990, this area has continued to see population growth among the older age groups while the largest decrease occurred among the 25-29 year old residents.

Coos County's age groups and the years which show decline and rise in certain groups of the population are shown on Table #5.

⁹⁵ OEA 1996 report provided the County projected population growth numbers.

Table 5 Population by Age⁹⁶

July 1994				
Years	Number	%	Change Number	90-94 Percent
0 - 4	3957	6.3	397	11.2
5 – 9	4258	6.8	-56	-1.3
10 – 14	4671	7.4	381	8.9
15 – 19	4402	7.0	36	.08
20 - 24	3729	5.9	-182	-4.7
25 - 29	3132	5.0	-1133	-26.6
30 – 34	4137	6.6	-139	-3.3
35 – 39	4736	7.5	59	1.3
40 – 44	4711	7.5	541	13.0
45 – 49	4132	6.6	522	14.5
50 – 54	3502	5.6	4441	14.4
55 – 59	3093	4.9	202	7.0
60 – 64	3047	4.9	125	4.3
65 – 69	3321	5.3	248	8.1
70 – 74	3090	4.9	396	14.7
75+	4882	7.8	662	15.7
Total	62800	100.0	2500	4.1

Since 1960 the older population of the United States (65 years and older) has been expanding at a rate almost twice that of the total American population and the number who migrate has risen even faster. Areas where the more affluent, better educated and recent retirees have located, shows a migratory pattern of the older migrants whose destination is based on living conditions rather than economic conditions.

Largest concentration of population are located in the communities of Coos Bay and North Bend. Two population trends currently affecting Coos County are the dramatic loss of younger residents and the significant increase of residents 65 and over. As shown in Table #6, each area's median age is represented and shows the County's median age.

Table 6 MEDIAN AGE BY CITY, 1990⁹⁷

Census Area	Median Age
Bandon	46.5
Barview	39.6
Bunker Hill	34.7
Coos Bay	36.5
Coquille	35.4

⁹⁶ Oregon Employment Department 1996 Regional Economic Profile (Portland State University)

⁹⁷ Coos Curry Douglas Business Development Corporation (Development Report and Plan, 1994-1995; U.S. Bureau of Census)

Lakeside	42.1
Myrtle Point	34.7
North Bend	35.3
Powers	42.6
Coos County	37.6
Oregon	34.6
United States	32.9

Migration is the most difficult component of population change to forecast. The migration flows in the 1970's was fueled by the economic growth, and in the 1980's the economy took a downward spin causing an out-migration.

In the 1970's net-migration was highest among persons age 20-34. The 1980's saw the 65 and older age group accounting for the largest share of the net-migrants.

The largest impact on population decline/growth is the economy. With no post-secondary educational institutions or major nonresource industries, as much as 30% to 40% of the 18 to 21 year old residents may leave the County. They or others may return to the county at age 25 to 35 as employment is generally stable in government, teaching, and service sectors. Portland State University's Center for Population Research and Census calls this type of migration "life-cycle migration".

Coos County's minority population in 1990 is reflected in Table #7.

TABLE 7 MINORITY POPULATION, 1990⁹⁸

Race/Ethnicity		Coos	% Total	Oregon	% total
White					
	Nonhispanic	56,879	94.4	2,579,732	90.8
	Hispanic	908	1.5	57,055	2.0
Black		144	0.2	46,170	1.6
Native American	1	1,370	2.3	38,496	1.4
Asian/Pacific Isl	ands	577	1.0	69,269	2.4
Other		364	0.6	51,591	1.8
TOTAL		60,242	100.0	2,842,321	100.0

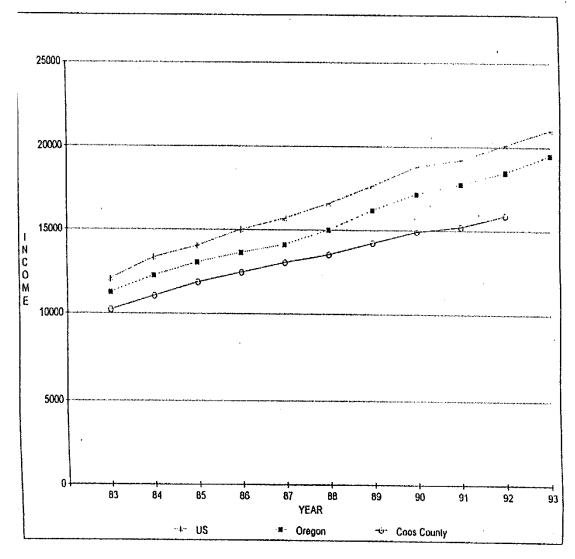
The minority population hasn't experienced significant changes that shift age groups. The largest minority in Coos County is the Native Americans who make up 2.3% of the total population.

The County's aging population is one of the factors which have caused a change in the makeup of personal income over the last 30 years. Decreases in net earnings (wage, salary and proprietorship income) have been balanced by significant increases in transfer payments [retirement and disability payments, medical payments, income maintenance payments (supplemental security income, aid to families with dependent children and food stamps)], unemployment insurance payments, veteran benefit payment, and other miscellaneous payments] and in a small way, income increased from interest, dividends and rents.

Graph #2 illustrates the Per Capita Income (PCI, total personal income divided by population) levels between United States, Oregon, and Coos County. In 1992 Coos County's PCI was at 85.6% of the state's PCI. Since the State's PCI is 92.5% of the national PCI, overall, the County's PCI is 78.8% of the national average. While Oregon's percentage-of-nation increased in 1992, Coos County's percentage-of-state and consequently it's PCI decreased which widened the gap between the County and State incomes. Coos County's 1992 PCI level ranked 23rd out of 36 counties in the state.

The unemployment rate is another indicator that compares unfavorably with State and national averages. For many of the last 10 years the County's unemployment rate has consistently stood higher than the State's rate. Additionally, the State's unemployment rate has been higher than the national unemployment rate, although not as consistently.

⁹⁸ Source: Coos Curry Douglas Business Development Corporation (Development Report and Plan 1994-1995; U.S. Department of Commerce Bureau of the Census)



Graph 2 Per Capita Income⁹⁹

Graph #3 shows the comparison of unemployment between the United States, Oregon, and Coos County between 1983 and 1993. During these 10 years Coos County experienced a higher than average rate of unemployment. Unemployment is usually highest in January or February and lower in August or September because of seasonal labor in logging, transportation, forestry, construction, agriculture, tourism, and recreation. The average number unemployed in Coos County dropped by 8.0%.

The manufacturing industries lost marginal employment while nonmanufacturing gained between 1992 and 1993. During this time period Coos County lost employment in food processing (7.8%) but gained in all other manufacturing and nonmanufacturing sectors; significantly in construction/mining (13.8%), and finance/insurance/real estate (18.5%) industries.

 $^{^{99}}$ CCD Business Development Corporation, Development Report & Plan 1994-1995

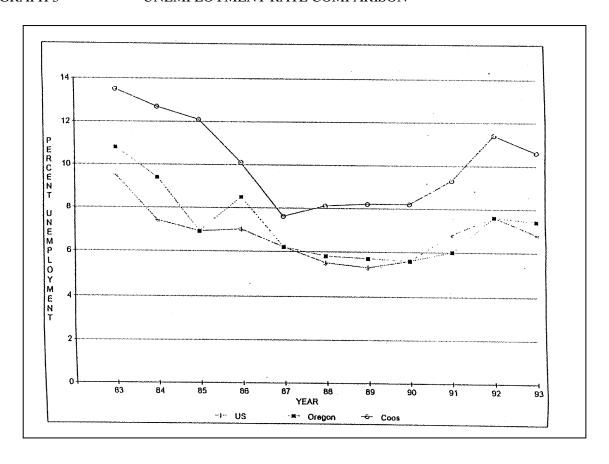


Table #8 shows Coos County's annual average and percentage change in resident labor force, nonagricultural wage and salary employment, and labor disputants.

Table 8 Annual Average and Percent Change Resident Labor Force,
Nonagricultural Wage and Salary Employment, Labor Disputants, Coos County¹⁰¹

Resident Labor Force	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993p
Civilian Labor force	27810	28680	27360	27640	27750	27230	27420	27290	27180	27660	27630
# Unemployed	4030	4120	3600	2920	2280	2630	2690	2440	2470	3130	2880
% Unemployed	14.5	14.4	13.2	10.6	8.2	9.3	9.8	8.9	9.1	11.3	10.4
Total Employed	23780	24560	23760	24720	25470	25600	24730	24850	24710	24530	24750
Nonag. W & S											
Total Wage &	18370	18520	18390	18830	19400	19710	19340	19560	19380	19650	19940
Salary											
					T						
Manufacturing	4670	4640	4410	4540	4690	4420	3780	3680	3250	3180	3220
Lumber & Wood	3390	3360	3140	3310	3390	3090	2540	2370	1880	1810	1850
Food Products	560	530	480	560	570	540	450	570	500	510	470
Other	720	750	790	670	740	790	790	850	870	850	900
Nonmanufacturing	13700	13880	13980	14290	14710	15290	15560	15880	16140	16480	16720
	420	480	490	470	480	530	600	690	720	720	650
Construction/mining											
Trans/Comm/Util	1460	1400	1360	1380	1420	1400	1410	1430	1450	1400	1420
Trade	3910	4030	4060	4270	4570	4760	4810	4890	5000	5100	5330
Finance/Ins/R	760	780	790	800	780	770	770	910	930	960	930
Estate											
Services/Misc	2920	2900	2990	3110	3120	3390	3480	3390	3370	3540	3510
Government	4330	4290	4300	4260	4260	4440	4490	4680	4750	4870	4890
Labor Disputants											

101.0

Labor/Management

130

10

60

¹⁰¹ Oregon Employment Department, Research and Statistics. Resident Labor Force includes employed and unemployed individuals 16 years and older by place of residence. Data are adjusted for multiple job-holding and commuting. Includes nonagricultural wage and salary employment based on the 1987 S/C manual. The data are by place of work and persons working multiple jobs are counted more than once. Workers involved in labor-management disputes are excluded from the wage and salary employment totals. Due to revised estimating procedures between December 1990 and January, 1991, data for 1991 and that of previous years are not strictly comparable.

Table 8 (Cont'd) Annual Average and Percent Change Resident Labor Force,
Nonagricultural Wage and Salary Employment, Labor Disputants, Coos County 102

Resident Labor Force	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93
Civilian Labor	0.0%	3.1%	-1.6%	1.0%	.04%	1.7%	-2.9%	-0.5%	-0.4%	1.8%	-0.1%
Force	0.076	3.170	-1.070	1.070	.04 /0	1.7/0	-2.970	-0.5 /0	-0.470	1.070	-0.1 /0
# Unemployed	1.5%	2.2%	-12.6%	-18.9%	-21.9%	15.4%	2.3%	-9.3%	1.2%	26.7%	-0.1%
% Unemployed						-					
Total Unemployed	-0.2%	3.3%	-3.3%	4.0%	3.0%	0.5%	-3.4%	0.5%	06%	-0.7%	0.9%
Nonag W & S											
Total Wage &	0.25	0.8%	-0.7%	2.4%	3.05	1.6%	-1.9%	1.1%	-0.9%	1.4%	1.5%
Salary	5.70/	0.60/	5 OO/	2.00/	2.20/	£ 90/	14.50/	2.60/	12.00/	1.00/	1.20/
Manufacturing	5.7%	-0.6%	-5.0%	2.9%	3.3%	-5.8%	-14.5%	-2.6%	-12.0%	-1.9%	1.3%
Lumber & Wood	8.3%	-0.9%	-6.5%	5.4%	2.4%	-8.8%	-17.8%	-6.7%	-20.7%	-3.7%	2.2%
Food Products	-3.4%	-5.4%	-9.4%	16.7%	1.8%	-5.3%	-16.7%	2.2%	8.7%	2.0%	-7.8%
Other	1.4%	4.2%	5.3%	-15.2%	10.4%	6.8%	0.0%	7.6%	2.4%	-2.3%	5.9%
Nonmanufact.	-1.5%	1.3%	0.7%	2.2%	2.9%	3.9%	1.8%	2.1%	1.6%	2.1%	1.5%
Construction/	5.0%	14.3%	2.1%	-4.1%	2.1%	10.4%	13.2%	15.0	4.3%	0.0%	-9.7%
mining Trans/Comm/Util	1 40/	4.10/	2.00/	1 50/	2.00/	1 40/	0.7%	1.4%	1 40/	2.40/	1 40/
Trans/Comm/Util	-1.4% 0.8%	-4.1% 3.1%	-2.9% 0.7%	1.5% 5.25	2.9% 7.0%	-1.4% 4.2%	1.1%	1.4%	1.4% 2.2%	-3.4% 2.0%	1.4% 4.5%
Finance/Ins/	-2.6%	2.6%	1.3%	1.3%	-2.5%	-1.3%	0.0%	5.2%	2.5%	3.6%	8.1%
R Estate	-2.0%	2.0%	1.5%	1.5%	-2.3%	-1.5%	0.0%	3.2%	2.3%	3.0%	0.1%
Services/Misc	-0.3%	-0.7%	3.1%	4.0%	0.3%	8.7%	2.7%	-2.6%	-0.6%	5.0%	-0.8%
Government	-4.7%	1.4%	0.2%	-0.9%	0.0%	4.2%	1.1%	4.2%	1.5%	2.5%	0.4%

The level of education for the population of Coos County in 1990 showed that 76% of the residents who were 25 years of age and above had achieved the education level of high school graduate, this was up from 67% in 1980. About 12% of Coos County's population 25 years or older had a bachelor's degree or higher in 1990; in 1980 that figure was 11%. In comparison, 82% of Oregon's 25 years of age and above residents had high school diplomas in 1990; up from 76% in 1980. In 1990, 21% of Oregon's 25 years and older population had a college degree, which is an increase compared with the 18% the previous ten years.

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4.1.4 Labor, Employment and Income

a) Labor - Oregon's total labor force participation rose from 57% in 1970 to 64% in 1990 which is primarily due to the growth of women in the work force.

Coos County's labor force participation rose to 58% in 1980 and then fell to 55% in 1990. The decline in these 10 years occurred because of a sharp increase in the number of men retiring from the work force. Even though the increasing number of women entering the work force rose sharply, it did not reverse the downward trend. The retired residents largely account for the overall low rate of labor force participants in the County.

b) Employment - In September 1992 Coos County had 2,770 unemployed residents. By October, the number of unemployed had decreased to 2,580. A substantial part of Coos County's economy including logging, transportation, forestry, construction, agriculture, and recreation are highly seasonal. Unemployment is usually highest in January and at its lowest in September. The numbers of unemployed in Coos County have fluctuated considerably since 1985.

Table #9 shows the fluctuation in the labor force of those employed and unemployed. These fluctuations reflect the recession as well as job reductions in the wood products industry that have occurred in the past decade.

TABLE 9 LABOR FORCE, EMPLOYMENT, AND UNEMPLOYMENT 1985-1995 103

Year	Civilian	Employment	Number	Unemployment
	Labor Force			Rate
1985	27,360	23,760	3,600	13.2
1986	27,640	24,720	2,920	10.6
1987	27,750	25,470	2,280	8.2
1988	28,140	25,540	2,600	9.2
1989	27,420	24,720	2,700	9.8
1990	26,740	24,510	2,230	8.3
1991	26,850	24,500	2,350	8.8
1992	27,120	24,170	2,950	10.9
1993	27,910	25,000	2,910	10.4
1994	27,850	25,540	2,310	8.3
1995	27,800	25,800	2,000	7.2

Unemployment was highest in 1985 when the county was recovering from job losses and a recession in the years 1980-82. Coos County's unemployment in 1982 averaged 4,600 residents. In 1985 Coos County's jobless rate was at 13% which was an improvement from the 16%, which the area experienced three years earlier.

Coos County's jobless rate has fallen from 8.3% in 1994 to 7.2% in 1995. This is the lowest rate Coos County has seen since 1978 which saw a 7.0% jobless rate.

¹⁰³ Source: 1996 Oregon Employment Department Regional Economic Profile

- c) Income Availability of current income data for Coos County and the State of Oregon is through 1993. In 1993 Coos County's personal income totaled \$1,035 million which was 4.5% higher than the 1992 estimate of \$990 million. Annual growth rates fluctuated from 3.0% in 1988 to 8.0% in 1989. Oregon's personal income of \$59 billion in 1993 went up by 6.2% from the 1992 amount. There are 3 main personal income sources:
 - 1) Net earnings of labor and business proprietors. In 1993 Coos County's total personal income from wages and salaries was at 56%.

"Industrial earnings" is comprised of retail trade, services, government, manufacturing and construction. In 1993 Coos County's labor and proprietor earnings totaled \$616 million which was up by 21% from 1988's estimate.

In 1993 Coos County's earnings of workers who were covered by state and federal unemployment insurance laws accounted for 68% of the labor and proprietors earnings; between 1984 and 1994 covered pay rose by 45%. Coos County's covered payrolls in 1994 totaled \$434 million which is up by nearly 4% from the 1993 estimate. In 1994 earnings grew by \$26 million largely because of gains in trade (\$3.8 million) and services (\$5.8 million). Manufacturing earnings fell by about \$1 million, in spite of a small increase in lumber and wood products earnings. The lumber and wood products earnings accounted for over 60% of Coos County's earnings in manufacturing.

The largest increase occurred in retail trade which was up \$20 million; services expanded by \$27 million; government was higher by \$44 million which saw greater increases in state and local governments; manufacturing earnings fell by \$11 million which occurred because of the heavy loss in durable goods (lumber and wood products industry). Durable goods dropped by \$14 million, while nondurable goods saw a gain of a little over \$43 million; and construction earnings rose by nearly \$11 million in Coos County.

- 2) Dividends, interest and rents. Coos County's personal income from dividends, interest, and rents was at 18% in 1993 and 1994.
- 3) Transfer payments. Social Security, Medicare, other retirement income, veterans benefits, income maintenance payments, unemployment insurance and food stamps make up the transfer payments category. Coos County's 1993 and 1994 personal income in this group was at 26%. Oregon's personal income in this group was at 17%.

Weekly earnings in 1994 for those individuals covered by unemployment insurance in Coos County averaged \$411. This was 86% of Oregon's weekly earnings figure of \$477. Coos County ranked 15th in the state, tying with the Counties of Klamath and Deschutes. The highest earnings occurred in transportation and public services (\$585), lumber and wood products (\$557), while the lowest earnings were in services (\$333) and trade (\$286).

Coos County's wood products earnings were essentially equal to those for all of Oregon. The only segment where Coos County exceeded that of the state, was in agriculture, forestry, and fishing which had average earnings of \$438 per week; while the State's average earnings per week in this category was \$282. In all other industrial groupings, the weekly earnings for the entire State exceeded those for Coos County.

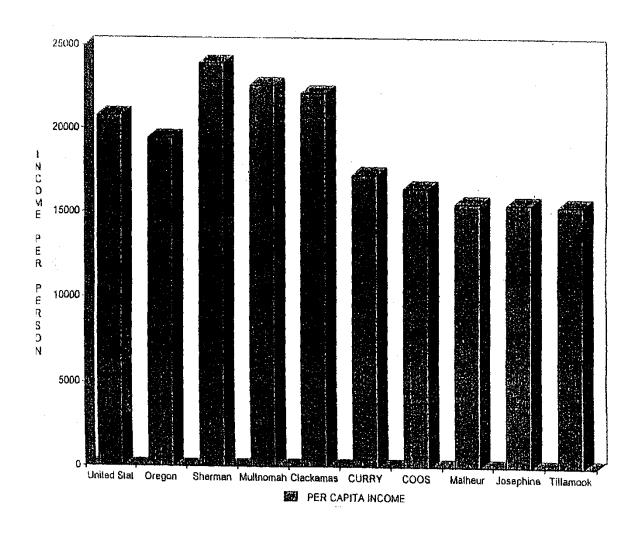
Table #10 displays Coos County's personal income from 1983 through 1994.

TABLE 10 COOS COUNTY TOTAL PERSONAL INCOME 104

Year	\$ Mill	Percent Change
1983	612	xxx
1984	650	6.3
1985	683	5.2
1986	726	6.2
1987	759	4.6
1988	782	3.0
1989	844	8.0
1990	895	6.0
1991	931	4.0
1992	990	6.4
1993	1,035	4.5
1994	1,080	4.4

Per Capita Personal Income is defined as "total personal income divided by population". Per Capita Personal Income is a fairly good measure of relative well being because it relates the total income to the population of an area. Coos County's Per Capita Personal Income in 1993 (Graph #4) averaged \$16,524; this was 85% of the estimate for Oregon (\$19,437). In 1994 Coos County's Per Capita Personal Income was \$\$17,225 which is 84.1% of the estimate for Oregon. In 1993 out of Oregon's 36 counties, Coos ranked 27th; 1994 saw the County of Coos rise to take its place as 23. The decline in higher paid industrial earnings in wood products and the growth of earnings in trade and services has kept Coos County in the lower third of all counties during the past decade.

¹⁰⁴ Source: U.S. Department of Commerce, Bureau of Economic Analysis; May 1995 (1996 Oregon Employment Department Regional Economic Profile)



For the U.S, Oregon, Coos, Curry, & top and bottom 3 counties

Table #11 compares Coos County's Per Capita Personal Income from 1984 through 1993 with Oregon.

TABLE 11 PER CAPITA PERSONAL INCOME: 1984 - 1993 106

Year	Oregon	% of Coos	Oregon	Rank

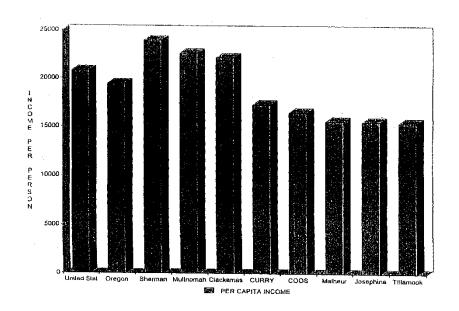
¹⁰⁵ 1996 Oregon Employment Department

Source: U.S. Department of Commerce, Bureau of Economic Analysis, May 1995 (1996 Oregon Employment Department Regional Economic Profile)

1984	12,277	10,690	87.1	26
1985	12,905	11,460	88.8	20
1986	13,546	12,445	91.9	13
1987	14,165	12,882	90.9	17
1988	15,074	13,197	87.5	24
1989	16,287	14,157	86.9	23
1990	17,199	14,816	86.1	22
1991	17,768	15,284	86.0	18
1992	18,667	16,005	85.7	24
1993	19,437	16,524	85.0	27

In comparison, Graph #5 shows the County of Sherman having the highest Per Capita Personal Income and Tillamook County having the lowest Per Capita Personal Income in the State.

Graph 5 Per Capita Income ¹⁰⁷



1993 Per Capita Income for the U.S., Oregon, Coos, Curry, and top & bottom 3 counties Table #12 compares Coos County with the State's 1989 household income.

¹⁰⁷ 1996 Employment Department

TABLE 12 HOUSEHOLD INCOME IN 1989 108

Households	Oregon	% of	Coos	% of
		Total		Total
Total Households	1,105,362	100.0	24,193	100.0
Less than \$5,000	60,824	5.5	1,676	6.9
\$5,000/9,999	108,006	9.8	3,233	3.4
10,000/14,999	112,425	10.2	3,374	13.9
15,000/24,999	222,693	20.1	5,096	21.1
25,000/34,999	194,886	17.6	4,256	17.6
35,000/49,999	199,702	18.1	3,816	15.8
50,000/74,999	138,482	12.5	1,931	8.0
75,000/99,999	37,088	3.4	429	1.8
100,000/149,000	19,614	1.8	264	1.1
150,000 or more	11,632	1.1	118	0.5
Median Household	\$27,250		\$22,146	
Income				
Percent of Oregon				81.3

Median household income for Coos County in 1989 was \$22,146. During this period of time 34% of all households in Coos County had incomes below \$15,000; this figure compares with 25% of Oregon households in this income range. Oregon's household income level of \$35,000 or more showed 37%, while Coos County showed 25% of its households at this income level.

4.1.5 Projection

Population projections from 1995 to 2020 for Coos and other counties within the state(obtained from the Office of Economic Analysis, 1997 Report) are provided in Table #13. The population projection for this period shows Coos County gaining 7413 residents; this 25 year increase shows how slowly (yearly average growth rate of 0.09% over a 25 year period) the population in Coos County will increase.

Source: 1990 U.S. Census (1996 Oregon Employment Department Regional Economic Profile)

Table 13 Population Projections ¹⁰⁹

County	1995	2000	2005	2010	2015	2020
Baker	16500	17349	18001	18635	19267	19893
Benton	75500	79291	82116	85080	88167	91345
Clackamas	308600	338247	369683	403915	441193	480392
Clatsop	34300	35622	36919	38376	40018	41788
Columbia	39700	41780	43722	45777	17954	50250
Coos	62100	63612	64950	66338	67870	69512
Crook	15700	17168	18662	20215	21892	23678
Curry	22200	24699	16643	28576	30541	32465
Deschutes	94100	112846	132829	151230	167231	181448
Douglas	97700	102344	106652	111068	115713	120671
Gilliam	1750	1992	2032	2071	2116	2161
Grant	7950	8292	8517	8742	8989	9245
Harney	7050	7531	7606	7651	7694	7744
Hood River	18700	20152	21477	22804	24174	25559
Jackson	164400	177982	188746	199415	210273	221665
Jefferson	16100	18763	21468	24376	27530	30824
Josephine	71100	76608	81040	85596	89596	93669
Klamath	61600	64996	68099	71376	74868	78369
Lake	7550	7779	7982	8171	8654	8630
Lane	301900	331464	352944	374499	397350	419842
Lincoln	41800	44689	47190	49794	52539	55424
Linn	98100	104894	110573	116053	121503	127158
Malheur	28200	31762	32799	33793	34819	35810
Marion	258000	285975	308364	331025	354561	378208
Morrow	8700	9828	10723	11594	12463	13322
Multnomah	626500	659087	676975	694597	713532	732500
Polk	55400	60719	65040	69402	73940	78502
Sherman	1900	1925	1974	2020	2068	2116
Tillamook	23300	24761	26143	27538	29030	30604
Umatilla	65200	69854	72870	75869	78936	81964
Union	24400	24927	25422	25927	26439	26971
Wallowa	7250	7458	4632	7815	8025	8248
Wasco	22600	23198	23713	24528	24867	25498
Washington	370000	422886	467233	510564	554945	598800
Wheeler	1550	1597	1833	1966	2100	2230
Yamhill	74600	83826	92429	101253	119589	128990
Total Oregon	3132000	3406000	3631000	3857000	4091000	4326000

The 1996-2020 projected population (Table 4b) for Coos County is taken from the 1996 OEA report. The largest growth rate projected is for the City of Lakeside, which is an increase of 1009 residents (growth rate of 37.9%); second largest growth rate is the City of Bandon, which is an increase of 963 residents

(growth rate of 25.6%); the Cities of Coos Bay (increase of 1,789 residents), North Bend (increase of 1,140 residents), Coquille (increase of 487 residents), Myrtle Point (increase of 315 residents) and Powers (increase of 80 residents) all show a growth rate of 10.2%. The unincorporate area shows a growth rate of 5.1%, which is an increase of 1,331 residents.

The State Economist's projection of population for Coos County is somewhat slower than the 1993 projection compiled by Portland State University.

At the request of the Department of Land Conservation and Development (DLCD), the County is using the State Economist figures for its population projections, however, the County feels that its population will slowly increase between 1996 and 2020.

4.1.6 Summary

The compiled data which is provided by Portland State University, Oregon Office of Economic Analysis (Department of Administrative Services) and the U.S. Bureau of the Census has projected the population for Coos County to the year 2020 to increase to 69,513 residents. This projection is a 11.1% increase in population between 1995 and 2020. Of course, while there does show a small population increase for the county this trend basically reflects that a significant increase will be in the retirement age group, this could change if an influx of businesses and industries were to locate in Coos County.

4.1.7 Future Updates

Coos County shall update population data and appropriate elements of the Coos County Comprehensive Plan (every ten years or during periodic review) as new information becomes available from the U.S. Census Bureau, the Office of Economic Analysis and Portland State University.

4.1.8 Definition of Terms

- a) Labor Force that part of the population, aged 16 and over, which is employed or unemployed, including those involved in active military duty.
- b) Labor Force Participation Rate (LFPR) the percent of people 16 years of age and older in a specific population who are considered part of the labor force (ie., either employed or unemployed).
- c) Median a measure of average value. If all values were listed in ascending or descending order, the median would be the value in the middle.
- d) Net-Migration the number of people who moved into an area minus the number of people who moved out during a specified period of time.
- e) Per Capita Personal Income an estimate of total personal income (including wages, rents, dividends, interest, and proprietary income) divided by the total population. This estimate can be used to compare economic areas as a whole, but it does not reflect how the income is distributed among residents of the area being examined.
- f) Unemployment Rate the percent of the noninstitutional civilian labor force which is currently unable to find employment, but which is actively seeking employment. It is calculated by dividing the number of unemployed by the number in the labor force at a given point in time.

4.2 LABOR FORCE AND UNEMPLOYMENT

LABOR FORCE PARTICIPATION
EDUCATION
WORK EXPERIENCE/JOB SKILLS
WAGES AND SALARIES
EMPLOYMENT AND UNEMPLOYMENT
LOCAL MANPOWER TRAINING PROGRAMS
COMMERCIAL/INDUSTRIAL STRUCTURE
SECTOR EMPLOYMENT TRENDS
LUMBER AND WOOD PRODUCTS
LOCAL MANUFACTURING

4.2 Labor & Employment

Human Resources

LABOR FORCE PARTICIPATION

The local "labor force" constitutes that portion of Coos County's population over 16 years of age who are either currently employed or unemployed but known to be actively seeking employment. Manpower planers use several statistical indicators to measure and evaluate the economic vitality of an area's human resources. The labor force participation rate (LFPR) is one such indicator. Very simply, the LFPR is the percentage of the working age population that is wither working, or unemployed and looking for a job. A 60% LFPR, as an example, would indicate that six out of every ten working age people are in the labor force. Table 5.3-8 compares the LFPR for Coos County and Oregon by sex, for the years 1970 and 1977. The table reveals two key considerations: (1) local labor force participation rates are lower than Oregon in general, and (2) female labor force participation rates have registered marked increases both locally and statewide since 1970. According to DDC-EIA:

The increase in the female participation rate may be partially accounted for by two factors. First, state and federal legislation prohibits sex discrimination in employment and actually encourages female employment through affirmative action programs, and second, urban organization of the CCD-EIA District is increasing. Urban areas typically have higher percentages of services available to residents, and service industries historically employ a large percentage of women. One of the effects of a higher female participation rate is a higher average family income, because of an additional wage earner in the family. (CCD-EIA, 1978: III-9)

TABLE 5.3-8 Comparison of Male and Female Labor Force Participation Rates for Coos County and Oregon, 1970 and 1977¹

	Coos County		Oregon	
	1970	1977	1970	1977
Male	77.6%	78.5%	79.2%	79.1%
Female	35.3%	39.9%	42.8%	48.2%

Source: CCD-EIA, "1978 C.E.D.S.,"

Table 5.3-9 profiles the ethnic employment and unemployment characteristics of the local labor force, and also identifies female labor force participation. White workers dominate the local labor force, constituting nearly 99% of those working or unemployed and seeking a job.

TABLE 5.3-9
Comparison of Coos County Labor Force: Employment and Unemployment by Sex and Minority Status, 1977¹

Sex & Minority	Labor Ford	ce	Employment		Unemployme	nt
Status	Number	% of	Number	% by	Number	% by
		total		Race		Race
BOTH SEXES						
TOTAL	24,640	100.0	21,670	87.9	2,970	12.1
White	24,292	98.6	21,367	88.0	2,925	12.0
Minority groups ²	570	2.3	499	87.5	71	12.5
Black	15	0.1	5	33.3	10	66.7
Other Races	333	1.4	298	89.5	35	10.5
Spanish	222	0.9	196	88.3	26	11.7
American						
FEMALE						
TOTAL	8,590	100.0	7,411	86.3	1,179	13.7
****	0.450	00.7	7.2 00	0.50		12.5
White	8,460	98.5	7,299	86.3	1,161	13.7
Minority groups ²	210	2.4	179	85.2	31.	14.8
Black	0	0	0	0	0	0
Other Races	130	1.5	112	86.2	18	13.5
Spanish	80	0.9	67	83.8	13	16.3
American						

Source: CCD-EIA, 1978

Education

Educational attainment is a key indicator of the potential skill levels of an area's labor force. Table 5.3-10 presents comparative statistics on educational attainment for Coos Bay, Coos County, Oregon, and the U.S.

¹Statistics contained in this table are for April, 1977 and these are not comparable to other 1977 annual figures contained in this report.

²Some of Spanish American and all races except white. Some duplication possible since Spanish American may include non-white races in addition to white.

TABLE 5.3-10
Comparison of Educational Attainment for
Coos Bay, Coos County, Oregon,
and the U.S., 1970¹

Level of Education	Coos Bay	Coos County	Oregon	U.S.
% of population over age 25 with less than five (5) years of schooling completed	1.8%	2.2%	2.3%	3.8%
% of population over age 25 with 5- 11 years of schooling completed	42.3%	47.0%	37.6%	42.1%
% of population over age 25 with 12- 15 years of schooling completed	44.8%	42.7%	48.2%	41.6%
% of population over age 25 with 4 years or more of college	10.2%	7.2%	11.7%	10.6%
Median school years completed	12.2	11.9	12.3	12.1

Source: CCD-EIA "Coos County and the Coos Bay-North Bend Area Development Factbook," 1976.

Persons with a high school education are generally capable of semi-skilled positions relate to manufacturing and assembly. About 44% of Coos Bay's population, and about 49% of Coos County's population may be categorized in this skill group. Table 5.3-10 also indicated that a high percentage (55%) of Coos Bay's population older than 25 has 12 or more years of education. CCD-EIA notes that persons who have attained this level of education are capable of handling high technology skills and management functions. Note that Coos Bay's population over age 25 years which has at least a high school level education is higher than Coos County and the U.S., but falls short of comparable statewide educational attainment. The educational characteristics of Coos Bay's population should be attractive to business and industry demanding a labor force with high technology skill requirements. The educational characteristics of Coos County's population, however, should be more attractive to business and industry with needs for a semi-skilled labor force. (CCD-EIA, 1976)

Work Experience/Job Skills

Tables 5.3-11 and 5.3-12 provide an overview of the 1970 occupational and job skill characteristics of the local labor force by sex, state data are presented for comparison. It is believed that the relationships evident from interpretation of these 1970 data are still generally applicable in 1979.

TABLE 5.3-11 Occupational Characteristics of the Female Labor Force of Coos County and Oregon (Females, 16 years of age or older), 1970¹

	Coos	County	Oreg	on
Occupation	Number	%	Number	%
Total Employed	6,273	100.0	388,716	100.0
Professional, technical, and kindred workers	933	15.8	46,743	16.2
Nurses	221	3.5	8,122	2.6
Health workers, except nurses	35	0.6	2,981	1.0
Teachers, elementary & secondary schools	536	9.0	18,423	6.4 0.4
Technicians, except health Other professional workers	4 170	0.1 2.7	1,041 16,178	0.4 5.6
Manager & Administrators, except farm	347	5.5	13,364	4.6
Sales Workers	565	9.0	23,190	8.0
Retail trade	505	8.1	18,982	6.6
Other than retail trade	60	1.0	4,208	1.4
Clerical and kindred workers	1,696	27.0	100,724	34.9
Bookkeepers	418	6.7	1,588	4.2
Secretaries & Stenographers, typists	522	8.3	33,299	11.5
Other clerical workers	756	12.1	52,137	18.1
Craftsmen, foremen and kindred workers	98	1.7	4,855	1.7
Operatives, except transport	772	12.3	22,745	1.0
Durable goods manufacture	218	3.5	7,491	2.6
Nonmanufacturing industries	403	6.4	7,637	2.6
Transport equipment operatives	50	.8	2,108	.7
Laborers, except farm	128	2.0	3,495	1.2
Farmers and farm managers	46	.7	1,561	2.6
Farm laborers and farm foremen	109	1.7	3,112	1.1
Service workers, except private household	1,298	20.7	58,552	20.3
Cleaning service workers	148	2.4	7,105	2.5
Food service workers	664	10.6	26,521	9.8
Health service workers	275	4.4	12,616	4.4
Personal service workers	122	1.9	7,545	2.6
Protective service workers	12	.2	435	.2
Private household workers	171	2.7	8,267	2.9

Source: CCD-EIA, "Coos County and the Coos Bay-North Bend Area Development Fact book," 1976

Regarding female employment, CCD-EIA notes that limited female employment opportunities in the lumber and wood products industry contributes heavily to the low female LFPR of 39.9% for Coos County in 1977. It is reasonable to believe that a sizable percentage of the County's female work force would actively seek employment if suitable opportunities existed. The female LFPR for Oregon in 1977 was 8.3% higher than in Coos County. Table 5.3.11 indicates that Coos County has a lower relative percentage of participation in clerical, secretarial and related positions than does the state in general. Such occupations have traditionally been filled by women.

Table 5.3.12 profiles the occupational and job skill characteristics of the male segment of the local and statewide populations. It is noteworthy that Coos County's percentage of male "clerical and kindred workers# registers nearly twice that of the statewide average. There is no apparent explanation for this phenomenon. Coos County has a higher relative percentage of manufacturing and mill-related employees than does Oregon in general, which may be attributed to forest and wood products employment.

It is an extremely difficult task to determine which of the area's occupations are in short supply and which are over supplied. Fortunately, the Career Information System of the University of Oregon recently developed an exhaustive inventory of job opportunities in Coos and Curry Counties. The report includes an "outlook" for some 240 occupational categories based on local supply, demand, turnover, and other employment considerations. The following list has been prepared as an indicative overview of select occupational opportunities in 1978. Moreover, these data have been generally substantiated by a more recent survey of employment trends in the hi-county area (state of Oregon Employment Division, 1979)

1. Shortage Occupations (Shortage of experienced/qualified workers):

Full-charge Bookkeepers Auto Mechanics
Experienced Secretaries Registered Nurses
Lumber Graders and Inspectors Fry Cooks

2. <u>High Turnover Occupations (Frequent Openings):</u>

Motel Maids General Office Clerks Janitors. Waiters and Waitresses Nurses Aids & Orderlies

TABLE 5.3-12 Occupational Characteristics of the Male Labor Force of Coos County and Oregon (males, 16 years of age or older), 1970¹

	COOS COUNTY		OREGON	
OCCUPATION	Number	%	Number	%
Total Employed	19,899	100.0	490,029	100.0
1 7	,		,	
Professional, technical, and kindred workers	2,168	10.9	66,209	13.5
Engineers	107	0.5		
Physicians, Dentists, & Related practitioners	99	0.5		
Health workers, except practitioners	226	1.3		
Teachers, elementary & secondary schools	851	4.3	9,793	2.0
Technicians, except health	111	1.6	6,547	1.3
Other professional workers	734	3.7		
Managers & Administrators, except farm	1.645	8.3	61,895	12.6
Salaried: Manufacturing	172	0.9		
Retail trade	342	1.7		
Other Industries	647	3.3		
Self employed: Retail Trades	208	1.0		
Other Industries	276	1.4		
Sales Workers	1,177	5.9	35,447	7.2
Retail Trade	777	3.9	13,029	2.7
Other than Retail Trade	400	2.0	9,066	1.9
Clerical and kindred workers	1,997	10.0	28,385	5.8
Craftsmen, foremen, and kindred workers	3,066	15.4	97,791	20.0
Automobile mechanics, including body	279	1.4		
repairmen				
Mechanics and repairmen, except automobile	319	1.6		
Metal craftsmen, except mechanics	213	1.1		
Construction craftsmen	685	3.4		
Other craftsmen	1,570	7.9		
Operatives, except transport	3,339	16.8	59,850	12.2
Durable goods manufacturing	2,113	10.6	34,098	7.0
Non-Durable goods manufacturing	414	2.1	7,777	1.6
Nonmanufacturing industries	816	4.1	17,975	3.7
Transport equipment operatives	1,338	6.7	31,947	6.5
Laborers, except farm	2,341	11.8	44,214	9.0
Construction laborers	100	.5		
Freight, stock, and material handlers	1,000	5.0		
Other laborers, except farm	1,241	6.2		
Farmers and farm managers	326	1.6	13,932	2.8
Farm laborers and farm foremen	245	1.2	12,411	2.5
Service workers, except private household	2,076	10.4	37,687	7.7
Cleaning service workers	437	2.2	14,007	2.9
Food service workers	789	4.0	9,029	1.8
Health services workers	290	1.5	1,288	.3
Personal service workers	213	1.1	3,519	.7
Protective service workers	252	1.3	7,401	1.5
Private Household workers	171	0.9	261	0.0

Source: CCD-EIA, "Coos County and the Coos Bay – North Bend Area Development Factbook," 1976.

3. <u>Surplus Occupations (Oversupply of workers):</u>

Green-chain Pullers Chokersetters
Forestry Technicians Retail Sales Clerks
Cashiers Truck Drivers
Construction Laborers Heavy Equipment

Operators

Food Processing Workers

It can be generally concluded that current employment reflects a surplus primarily of semiskilled workers, although shortages in some occupations certainly exist. This surplus coupled with local educational characteristics, should be appealing to an industry seeking to locate in an area with an available semi-skilled labor force.

Wages and Salaries

Current wage and salary figures for the Coos County labor force are not readily available. However, the CCD-EIA has compiled statistics on a wide cross section of occupations for the southern Oregon labor market as of August, 1976. These data are presented in Table 5.3-13.

Coos County's average wage levels are influenced by rates paid to lumber and wood products workers. CCD-EIA states that these rates "are well above those for other types of manufacturing and average \$5.00 pr hour for an entry level position" (CCD-EIA, 1978:III-7). While these wages provide social and economic benefits to those who receive them, CCD-EIA further notes that "since labor costs are a principal consideration in plant site location, the wage rates as presented appear to be a slight disadvantage for the area." (1978:III-7) Table 5.3-14 details prevailing journeyman wage rates for basic building and specialty trades in Coos County.

The Oregon Employment Services Division has suggested that "employment of a (local) work force with sufficient motivation and potential for advancement as career employees would require a starting wage of \$3.00 (per hour) and an average wage of \$4.00 (per hour)." (1978:III-7)

Employment and Unemployment

The percentage of a labor force that is unemployed (i.e., the "unemployment rate") is the man statistical indicator of the degree to which the human resources of an area are utilized. Fig. 5.3-3 presents a historical comparison of local unemployment versus state and national unemployment for the period from 1960 to 1977. It is readily apparent that local unemployment problems have consistently exceeded those of the state and nation during recent years. CCD-EIA fixes blame for this unfortunate situation on the seasonality of the local economic structure - forest and wood products industries, agricultural activities, fishing and tourism- which are characterized by low winter employment levels. (1978:IV-6-7) Fig. 5.3-4 summarizes and illustrates the seasonal characteristics of Coos

Hourly Earnings (all workers)*(a)			
Mean	Median	Middle Range	
\$4.35	\$4.12	\$3.65-4.80	
4.78	4.45	4.45-5.08	
4.93	4.98	4.78-5.18	
4.76	4.46	4.21-5.13	
4.08	3.65	3.46-4.44	
5.31	5.97	3.89-6.39	
3.99	4.03	3.80-4.28	
3.20	3.23	2.74-3.55	
2.80	2.92	2.50-3.07	
3.63	3.09	2.79-3.91	
3.78	3.63	3.50-4.03	
3.12	3.00	2.88-3.20	
6.60	7.06	6.02-7.13	
6.82	7.05	6.43-7.14	
7.27	2.28	7.04-7.63	
7.60	7.88		
7.28	7.31	7.15-7.38	
7.05	7.15	6.84-7.22	
7.09	7.15	6.95-7.23	
7.14	7.04	6.93-7.38	
6.72	6.78	6.51-6.90	
5.94	5.92	5.87-6.24	
6.63	6.47	6.15-6.94	
5.80	5.66		
6.06	6.03	5.78-7.75	
6.67	6.45	6.16-6.94	
6.97	6.85	6.50-7.75	
6.23	5.88	5.58-6.87	
5.89	6.05	5.96-6.24	
5.21	5.35	5.20-5.93	
4.87	5.64	4.12-5.70	
	Mean \$4.35 4.78 4.93 4.76 4.08 5.31 3.99 3.20 2.80 3.63 3.78 3.12 6.60 6.82 7.27 7.60 7.28 7.05 7.09 7.14 6.72 5.94 6.63 5.80 6.06 6.67 6.97 6.23 5.89 5.21 4.87	Mean Median \$4.35 \$4.12 4.78 4.45 4.93 4.98 4.76 4.46 4.08 3.65 5.31 5.97 3.99 4.03 3.20 3.23 2.80 2.92 3.63 3.09 3.78 3.63 3.12 3.00 6.60 7.06 6.82 7.05 7.27 2.28 7.65 7.15 7.09 7.15 7.14 7.04 6.72 6.78 5.94 5.92 6.63 6.47 5.80 5.66 6.06 6.05 6.23 5.88 5.89 6.05 5.21 5.35	

Source: CCD-EIA, "Coos County and the Coos Bay – North Bend Area Development Factbook," 1976.

- (a) Excludes premium pay for overtime and for work on weekends, holidays, late shifts. Incentive payments, production bounses and commission systems are included in the wages reported. Cost-of-living allowances are considered as part of the workers regular pay.
- (b) Includes workers other than those presented separately.

Figure 5.3-3 Comparison of Average Annual Unemployment Rates (%) for Coos, Oregon and the U.S., 1960-1977¹

Year	Coos County	Oregon	United States
1960	7.0	4.9	5.5
1961	9.2	6.4	6.7
1962	6.7	5.5	5.5
1963	6.7	5.1	5.7
1964	6.9	5.0	5.2
1965	7.6	4.6	4.5
1966	6.4	4.2	3.8
1967	8.0	4.8	3.8
1968	6.9	4.4	3.6
1969	7.4	4.4	3.5
1970	8.2	5.9	4.9
1971	9.1	6.3	5.9
1972	8.0	5.9	5.6
1973	7.2	6.2	4.9
1974	9.1	7.5	5.6
1975	14.4	10.6	8.5
1976	11.3	9.5	7.7
1977	8.9	7.4	7.0

CCD-EIA, "1977-78 O.E.D.P.," 1977. Oregon Employment Division, Department of Human Resources, "Employment Statistics" CCD-EIA, "1978-79 C.E.D.S., " 1978

Figure 5.3-3

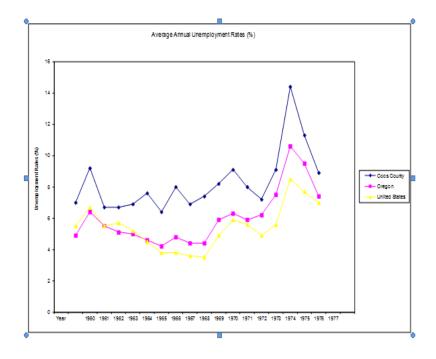


Table 5.3-14 Prevailing Journeyman Wage Rates in Coos County, 1977¹

Occupation	Average Straight Time Hourly Wage	
Carpenter	\$10.65	\$1.93
Millwright	10.90	1.93
Piledrivers	10.75	1.93
Cement Masons	10.37	2.20
Hoisting and Port Engineers		
Group 1	9.79	2.70
Group 19	11.69	2.70
Iron Workers	11.00	1.78
Laborers		
Group 1	8.39	2.70
Group 4	9.29	2.70
Boilermaker	11.575	2.295
Brick mason	11.67	1.72
Drywall	10.65	1.93
Electrician	12.30	1.69
Painters	10.03	1.39
Plumbers and Steamfitters	13.23	2.38
Roofers	10.45	.75
Sheet metal Workers	11.635	.96

Source: CCD-EIA, "coos County Area Development Factbook," 1978

County's unemployment rate from 1970-1977. Unemployment rates are clearly highest during winter months and lowest during summer months. CCD-EIA notes that seasonal unemployment locally has been "consistently higher than comparable state and national figures." (1978: III-6)

Figure 5.3-5 documents the statistical relationship that has existed between labor force participation, employment, and unemployment in Coos County since 1960. Although average annual employment increased by more than 4000 workers in Coos County since 1960, the labor force gained 5000 participants during the period. The net effect of the relationship between the greater labor force size and current unemployment rates is simple. Seven percent unemployment in 1960 meant that about 1,500 Coos County workers were unemployed, while nine percent unemployment in 1977 meant that about 2,300 workers were without jobs. Thus, it becomes clear that severe unemployment in mpacts have resulted in Coos County since 1960 because the number of local job opportunities has not kept pace with labor force increases

Table 5.3-15 Comparison of Civilian Labor Force, Employment and Unemployment, Coos County and Oregon, 1978¹

	Month	Civilian	Total	Unemploy	ment
		Labor Force	Employment	Number	%
С	January	25,580	23,490	2,090	8.2
O	February	25,710	23,750	1,960	7.6
O	March	26,280	24,480	1800	6.8
S	April	26,310	24,600	1,530	5.9
	May	26,520	25,110	1.410	5.3
C	June	27,600	26,050	1,550	5.6
O	July	27,020	25,520	1,500	5.6
U	August	27,020	25,430	1,590	5.9
N	September	27,180	25,400	1,780	6.5
T Y	October	27,690	25,770	1,920	6.9
1	November	27,440	25,190	2,250	8.2
	December				
	Annual Average				
	January	1,128,400	1,050,400	78,000	6.9
	February	1,132,400	1,063,200	69,200	6.1
	March	1,150,500	1,086,500	64,000	5.6
	April	1,159,700	1,100,200	59,500	5.1
O	May	1,165,000	1,106,200	58,800	5.0
R	June	1,191,900	1,131,900	60,000	5.
E	July	1,193,300	1,128,100	65,200	5.5
G	August	1,190,200	1,127,900	62,300	5.2
O	September	1,195,700	1,131,000	64,700	5.4
N	October	1,202,500	1,136,200	66,300	5.5
	November	1,207,900	1,131,500	76,400	6.3
	December				
	Annual Average				

Source: Oregon Employment Division, "Resident Oreogn Labor Force and Unemployment by Area," Monthly reports, 1978.

	Figure 5.3-4 Seasonal Characteristics of Coos County's Unemployment Rate (%) by year: 1970-1977										
Month	1970	1971	1972	1973	1974	1975	1976	1977	Average		
									1970-1977		
January	9.2	11.9	11.6	9.3	10.6	18.3	17.5	11.1	12.4		
February	9.8	12.2	12.8	8.5	9.7	17.9	15.2	10.3	12.0		
March	9.0	11.8	10.3	8.1	9.9	15.9	14.5	9.9	11.2		
April	8.1	8.9	9.3	6.6	8.8	14.7	12.5	10.6	9.9		
May	8.1	8.2	7.3	5.4	7.3	13.4	11.0	9.6	8.8		
June	8.8	8.5	7.6	6.1	8.0	13.3	10.5	7.7	8.8		
July	8.5	8.1	7.3	6.1	7.7	11.9	9.9	7.0	8.3		
August	6.3	8.5	6.3	5.4	7.0	11.4	9.2	7.7	7.7		
September	7.0	8.8	7.1	5.9	8.1	11.9	8.9	7.3	8.1		
October	6.6	8.4	7.5	7.2	10.0	13.7	9.9	7.9	8.9		
November	9.9	9.9	8.4	9.0	10.8	15.2	11.0	9.1	10.4		
December	10.2	11.1	10.0	9.2	12.3	16.8	10.3	8.4	11.0		

Source: Oregon Employment Division, Department of Human Resources, "Employment Statistics"

Average Unemployment Rate (%) 1970-1977

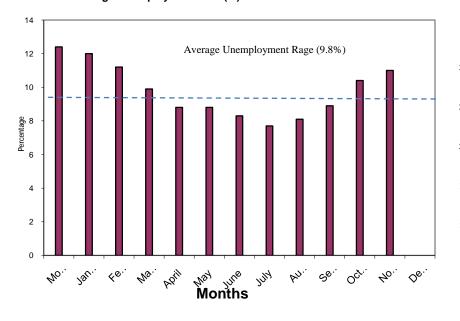


Figure 5.3-5 Annual Average Civilian Labor Force, Employment, Unemployment and Unemployment Rate for Coos County, 1960-1977

Year	Civilian	Employment		mployment
	Labor Force		Number	%
1960	20,780	19,320	1,460	7.0
1961	20,190	18,320	1,870	9.2
1962	19,460	18,120	1,310	6.7
1963	19,930	18,410	0,330	6.7
1964	21,030	19,570	1,460	6.9
1965	21,740	20,050	1,650	7.6
1966	21,990	20,570	1,410	6.4
1967	22,253	20,460	1,780	8.0
1968	22,560	21,010	1,550	6.9
1969	22,420	20,770	1,650	7.4
1970	22,050	20,190	1,860	8.4
1971	22,810	20,600	2,210	9.7
1972	22,630	21,560	2,070	8.8
1973	24,200	22,460	1,740	7.2
1974	24,070	21,870	2,200	9.1
1975	24,060	20,570	3,490	14.5
1976	24,740	21,480	2,900	11.7
1977	25,830	23,540	2,290	8.9

Source: Oregon Employment Division, Department of Human Resources, "Employment Statistics."

Annual Average Civilian Labor force, Employment, unemployment rate for Coos County, 1960-1977

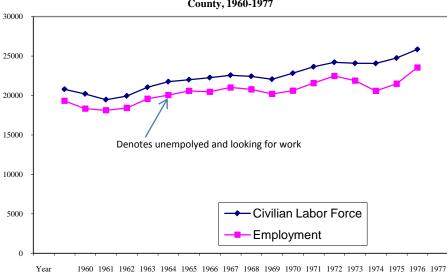


Table 5.3-9, previously referenced, indicates that ethnic minority unemployment in Coos County is generally higher than unemployment for the general population, which is typical throughout Oregon and the United States. It also indicates that female unemployment in Coos County in 1977 was only 1.6% higher than overall unemployment, and that more minority females were unemployed than their male counterparts. While two-thirds of the County's workers were unemployed in 1977, total black workers in the local labor force numbered only 15 that year.

Coos County's employment and unemployment statistics for the 1978 year are presented in Table 5.3-15 together with comparative data for Oregon. Annual averages for 1978 are not available at the time this report is prepared, however, Table 5.3-15 does reveal preliminary trends:

- Coos County's labor force and employment continued to experience gains during 1978, each registering abut 7.2% increase over the first 11 months of the year. Similar gains were experienced statewide.
- November, 1978 employment of 27, 440 jobs is an all-tie high for Coos County.
- Local unemployment levels during 1978 have been consistently higher than statewide unemployment in this period. Unemployment remains a serious problem in the area.

Local Manpower Training Programs

Two major manpower training opportunities exist for the local labor force. These are:

- 1. the education programs of the Southwestern Oregon Community College District and
 - 2. the Comprehensive Employment and Training Act (CETA) programs administered locally by the Coos-Curry Manpower Consortium.

Southwestern Oregon Community College is a two-year public community college located in Coos Bay. The objectives and educational policies of the college are designed to provide career training based on locally determined occupation and education needs. A lower division college curriculum is provided for those students wishing to transfer to four year colleges and universities. Applied technical training also exists for those wishing earlier entry into the labor market; such curriculums include coursework in nursing, law enforcement, aviation, fire sciences, electronics, forestry, industrial mechanics and business. CCD-EIA notes that "the college has served the needs of the retailing, telephone, banking, lumber construction, and fishing industries" in the area. (1978: X-3).

CETA programs administered chiefly by the Coos-Cury Manpower Consortium offer a second range of manpower training opportunities for the local labor force and would-be participants. The Comprehensive Employment and Training Act of 1973, as amended, provides federally funded "on –the-job" training, work experience and limited classroom training for underutilized manpower in the County.

Table 5.3-15 Comparison of Civilian Labor Force, Employment and Unemployment, Coos County and Oregon, 1978¹

	Month	Civilian	Total	Unemploy	ment
		Labor Force	Employment	Number	%
С	January	25,580	23,490	2,090	8.2
O	February	25,710	23,750	1,960	7.6
O	March	26,280	24,480	1800	6.8
S	April	26,310	24,600	1,530	5.9
	May	26,520	25,110	1.410	5.3
C	June	27,600	26,050	1,550	5.6
0	July	27,020	25,520	1,500	5.6
U	August	27,020	25,430	1,590	5.9
N T	September	27,180	25,400	1,780	6.5
Y Y	October	27,690	25,770	1,920	6.9
1	November	27,440	25,190	2,250	8.2
	December				
	Annual Average				
	January	1,128,400	1,050,400	78,000	6.9
	February	1,132,400	1,063,200	69,200	6.1
	March	1,150,500	1,086,500	64,000	5.6
	April	1,159,700	1,100,200	59,500	5.1
O	May	1,165,000	1,106,200	58,800	5.0
R	June	1,191,900	1,131,900	60,000	5.
E	July	1,193,300	1,128,100	65,200	5.5
G	August	1,190,200	1,127,900	62,300	5.2
O N	September	1,195,700	1,131,000	64,700	5.4
N	October	1,202,500	1,136,200	66,300	5.5
	November	1,207,900	1,131,500	76,400	6.3
	December				
	Annual Average				

Source: Oregon Employment Division, "Resident Oreogn Labor Force and Unemployment by Area," Monthly reports, 1978.

Commercial/Industrial Structure

The "economic structure" of an area relates to the distribution of the area's employed work force into their respective types of employment, which are generally termed employment "sectors". Examples of sectors include manufacturing, construction, retail trade and services. Areas containing a balance of employment in various sectors are said to be "diversified". Areas that are dependent on only one or two sectors for their economic "reason for being" are generally considered to have a more fragile economic structure than diversified economies, as changes in the employment levels of the key sectors can bring about profound changes in other sectors. The relationship between the sectors is addressed later in this section.

Table HR-11 compares the economic structures of Coos Bay, the Bay Area, Coos County, Oregon and the U.S. as the structures existed in 1970--which is the last year for which comparable city data are available. Manufacturing, trade and services form the foundation blocks of the local economy.

Table HR-11 Comparison of Employment by Industrial Sectors for Coos Bay, the Bay Area (1)

(Percent Distributions)

	(1 CICCIII	Distributio	113)		
Industrial Sectors	Coos Bay	Bay Area	Coos	Oregon	U.S.
	-		County		
Total Employment	100	100	100	100	100
Agriculture, Forestry, Fishing & Mining	1.3	2.6	1.4	5.5	4.3
Construction	3.6	3.7	4.7	5.4	5.5
Manufacturing*(2)	29.2	29.7	34.5	20.4	24.4
Transportation, Communication & Utilities	6.7	8.3	8.3	6.7	6.3
Wholesale and Retail Trade	25.9	24.5	19.9	20.9	18.9
Finance, Insurance, Business & Repair	5.9	5.7	5.1	7.7	7.6
Professional & related services#(3)	24.1	22.1	19.2	23.8	21.6
Government	3.2	3.5	3.2	4.7	5.2
Industry not reported	0	0	0	5.0	6.2

Source: 1970 U.S. Census Date

- (1) Coos Bay and North Bend
- (2) Includes furniture, lumber and wood products, metal industries, machinery, transportation equipment and other durable goods; also includes: food and kindred products, printing, publishing chemicals, textiles, and other non-durable products.
- (3) Includes schools, private household and personal services, entertainment & recreational services, hospitals & health services, legal, engineering and non-profit services, religious services, and welfare employment.

	1	940	1	950	1	960	1	970	19	77	%	of change
Employment Sector	No.	%	No.	%	No.	%	No.	%	No.	%	1940-	1970-1977
											1977	
Total Employment												1
1 ,	11,329	100	16,519	100	19,320	100	28,190	100	23540	100	108	17
Agriculture	1,535	14	1,219	7	980	5	730	4	520 ⁺ (2)	3	-60	-15
Manufacturing	4,415	39	6,852	92	6,910	36	6,588	33	6,830	26	37	-8
Non-	3,626	32	6,100	37	8,490	44	10,810	53	14190	60	291	31
Manufacturing												
Misc. *(3)	1.753	15	2,348	14	2,530	15	2.070	10	2700	11	54	30

Source: Coos-Curry C.O.G., "Coos County Population and Economic Characteristics, 1930-1970" and Oregon Employment Division, Department of Human Resources, "Employment Statistics"

- (1) Figures presented above are not strictly comparable to other employment figures cited in this study due to changes in reporting methodologies.
- (2) Preliminary
- (3) Includes unpaid farm workers domestic workers, self-employed and those involved in labor-management disputes.

Sector Employment Trends

Table HR-12 presents a historical overview of the changes that have occurred in Coos County's employment structure since World War II. Four trends are evident:

- Total County employment has doubled since World War II.
- Manufacturing employment (chiefly lumber and wood products employment) has been declining since 1950.
- Non-manufacturing employment (i.e., construction, trade, services, etc.) has quadrupled since 1940 and is responsible for total county employment gains during the period.
- Agricultural employment has registered steady declines since World War II. Fourteen out of every hundred jobs in Coos County in 1940 were agricultural employment. Today only three out of every hundred County jobs are in this sector.

Table HR-12 Historical Overview of Changes in General Employment Sectors, Coos County, 1940-19771 *

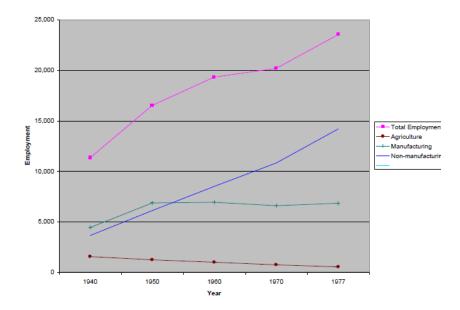


Table HR-13 compares local and state economic structure for the period 1 972-1977. Structural economic shifts are illustrated in Figure HR-1, which compares Coos County and Oregon employment by sector for the six-year period. Statewide sector employment shifts exceeded local employment changes during the period in all but three sectors--contract construction, wholesale trade, and government. Coos County construction employment gained 210 jobs between 1972 and 1977, which was more than triple the state's rate of increase during that time. Local wholesale trade employment grew slightly faster than statewide gains in this subsector, but government employment in Coos County grew twice as fast as government employment in Oregon during the six years. Total non-manufacturing employment in Coos County gained 2,560 jobs between 1972 and 1977, which was a 22% gain over the six years. Coos County's manufacturing employment, which has been generally declining since 1960, lost another 230 jobs between 1972 and 1977. Local employment in wholesale and retail trade increased 22% during the six years by gaining 710 new local jobs. Although local trade employment gains were slightly lower than the state's rate of increase from 1972 to 1977, the 710 new jobs in the County reflect gradual diversification achievements as other sectors absorb losses in local lumber and wood products employment.

Figure HR-2 compares the 1977 sector employment characteristics of Coos County and Oregon. Two local sectors- manufacturing and transportation, communications and utilities - had employment levels that were proportionately higher than total statewide employment in these sectors. In particular, it is significant that 6.6% of Oregon's total lumber and wood products employment in 1977 was comprised of Coos County employment in that subsector. In spite of recent gains in local trade employment, Coos County's proportion of jobs in this sector was slightly lower than statewide trade employment. Seventy percent of local jobs were in non-manufacturing employment in 1977, compared to 78% in these sectors statewide. Increased employment opportunities in local non-manufacturing sectors, as past trends suggest (Table HR-12), provide a key to diversifying Coos County's fragile, resource-dependant economy.

Table HR-13 Comparison of Coos County and Oregon Economic Structure Shifts, 1972-1977 (Annual Averages)1

		1972		197	3	1974		197	5	1976	5	1977		Change 1	972-1977
		Number	%	Number	%										
	Total Employment	21,560		22,460		21,870		20,570		21,840		23,540		1,980	9.2
	Total Wage & Salary Employment	17,890	100	18,800	100	18,780	100	17,930	100	18,870	100	20,220	100	2,330	13.0
	 Manufacturing, Total 	6,260	35.0	6,270	33.4	6,172	32.9	5,110	29.7	5,610	29.7	6,030	29.8	-230	-3.4
C	 Durable Goods Manufact. 	5,410	30.2	5,450	29.0	5,410	28.8	4,440	24.8	4,890	25.9	5,270	36.1	-140	-2.6
0	Lumber & wood	5,270	29.4	5,280	28.1	5,200	27.7	4,270	23.8	4,720	25.0	5,070	25.1	-200	-3.8
S	Other Durable goods	140	0.8	170	0.9	210	1.1	180	1.0	170	0.9	200	1.0	60	42.9
5	 Non-durable goods, 														
	manufacturing	850	4.7	820	4.4	760	4.0	670	3.7	720	3.8	760	3.8	-90	-10.6
0	food products	520	2.9	470	2.5	390	2.1	310	1.7	390	2.1	400	1.9	-120	-23.1
II	other non-durable goods	330	1.8	350	1.9	370	1.9	360	2.0	330	1.7	360	1.9	30	9.1
N	 Non-manufacturing, total 	11,630	65.0	12,530	66.6	12,610	67.1	12,820	71.5	13,260	70.3	14,190	70.2	2,560	22.0
T	- Contract construction	490	2.7	580	3.1	540	2.9	570	3.2	630	3.3	700	3.5	210	42.9
v	 Transportation, 	1,700	9.5	1,830	9.7	1,760	9.4	1,540	8.6	1,680	8.9	1,760	8.7	60	3.5
1	communication & utilities														
	- Trade	3,250	18.2	3,480	18.5	3,430	18.3	3,350	18.7	3,500	18.5	3,960	19.6	710	21.8

Г	Wholesale Trade	450	2.5	490	2.6	490	2.6	480	2.7	520	2.7	550	2.7	100	22.3
1	Retail Trade	2,800	15.7	2,990	15.9	2,940	15.7	2,870	16.0	2,980	15.8	3,410	16.9	610	21.8
	 Finance, Insurance & Real Estate 	620	3.5	680	3.6	690	3.7	680	3.8	680	3.6	700	3.5	so	129
	 Services & Miscellaneous 	2,270	12.7	2,490	13.2	2,320	12.4	2,360	13.2	2,400	12.7	2,610	12.9	340	15.0
	- Government	3,300	18.4	3,470	18.5	3,870	20.6	4,320	24.1	4,370	23.2	4,460	22.1	1,160	35.2

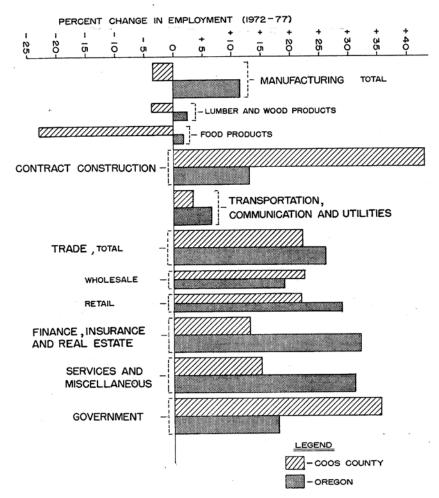
Table HR-13 Comparison of Coos County and Oregon Economic Structure Shifts, 1972-1977 (Annual Averages)119

Number 939,000 0 816,200 8 196,900	100	Number 939,000 837,900	100	Number 929,000	%	Number 968.000	%	Number 1.043.000	%	Number	%
0 816,200			100			968 000		1.042.000			
		837,900						1,043,000		149,300	16.
8 196,900			100	837,400	100	872,300	100	929,500	100	155,200	20.
	24.1	196,800	23.5	182,100	21.7	192,900	22.1	204,700	22.0	20,700	11.
3 145,600	17.8	145,200	17.3	132,800	15.9	141,700	16.2	151,300	16.3	17,100	12.
0 80,900	9.9	76,700	9.2	69,600	8.3	75,900	8.7	79,100	8.5	1,800	2.
3 64,700	7.9	68,500	8.2	63,200	7.6	65,800	7.5	72,200		15,300	26.
4 51,300	6.3	51,600	6.2	49,300	5.9	51,200	5.9	53,400	5.7	3,600	7.
	2.9		2.8		2.7				2.5		1.
4 27,900	3.4	28,300	3.4	26,900	3.2	28,100		29,600	3.2	3,200	12.
2 619,400	75.9	641,100	76.5	655,300	78.3	679,400	77.9	724,800	78.0	134,500	22.
	4.8	39,000	4.7	25,300	4.2	36,200	4.1	41,500	4.5	4,700	12.
5 52,300	6.4	52,500	6.3	50,200	6.0	51,100	5.9	53,500	5.8	3,200	6
	0 80,900 3 64,700 4 51,300 0 23,400 4 27,900 2 619,400 7 39,000	.0 80,900 9.9 .3 64,700 7.9 .4 51,300 6.3 .0 23,400 2.9 .4 27,900 3.4 .2 619,400 75.9 .7 39,000 4.8	0 80,900 9.9 76,700 3 64,700 7.9 68,500 4 51,300 6.3 51,600 0 23,400 2.9 23,300 4 27,900 3.4 28,300 2 619,400 75.9 641,100 7 39,000 4.8 39,000 7,7 39,000 4.8 39,000	0 80,900 99 76,700 92 3 64,700 79 68,500 82 4 51,300 63 51,600 62 0 23,400 29 23,300 2.8 4 27,900 3.4 28,300 3.4 22 619,400 7.59 641,100 7.6 7 39,000 4.8 39,000 4.7	0 88,990 99 76,700 92 69,600 3 64,700 79 68300 82 63,200 4 51,300 65 51,600 62 49,300 0 23,400 29 23,300 28 22,400 4 27,900 3.4 28,300 3.4 26,900 2 49,400 759 611,100 76,5 655,300 7 39,000 48 39,000 47 25,300	0 80000 99 76700 92 69600 83 3 64700 99 88500 82 63200 59 4 51300 63 51,600 62 49300 59 0 23400 29 23300 28 22400 27 4 27900 34 28300 34 26500 22 2 619400 759 641,100 765 655,000 783 7 39,000 48 3 39,000 47 7 25300 47	0 80900 99 76700 92 69600 83 75300 3 64700 79 68500 82 63500 76 65800 4 51300 63 51,600 62 49300 59 51200 0 23460 29 23300 28 22400 2.7 23100 4 27900 34 28300 34 26500 32 28100 2 619400 759 641,100 765 655,500 785 679400 7 39,000 48 3 9900 47 2 33500 42 36200	0 80900 99 76700 92 69600 83 75900 87 3 64700 79 68300 82 63200 76 65800 75 4 51300 63 51,600 62 49300 59 51,200 59 0 23,400 29 23,300 28 22,400 2.7 23,100 2.2 4 27900 34 28,200 34 26,200 32 28,100 3.2 2 619,400 75 9 641,100 765 655,300 78.3 679,400 77. 7 39,000 48 3 89,000 47 25,300 42 36,200 4.1	0 80000 99 76700 92 99,000 83 75,900 87 79,100 3 3 47,000 97 96,850 82 63,000 76 65,800 75 72,000 4 51,300 63 51,600 62 49,300 59 51,200 59 53,400 0 23,400 29 23,300 28 22,400 27 23,100 27 23,800 4 27,000 23,400 29,400 20,400	0 80900 99 76700 92 69600 83 75900 87 79100 85 3 64700 79 68500 82 63200 76 65800 75 72200 78 4 51300 63 51,600 62 49300 59 51,200 59 53,400 57 0 23400 29 23300 28 22400 27 23,100 27 23,800 25 4 27900 34 28300 34 26900 32 28,000 32 29,000 32 2 619400 759 641,100 755 653,500 785 679,400 779 724,800 780 7 39,000 48 3 99,000 47 23300 42 56,000 41 41,000 45	0 80900 99 76700 92 69600 83 75900 87 79100 83 15300 3 64700 79 68500 82 63200 75 75200 75 75200 78 15300 4 51300 63 51600 62 49300 59 51200 59 53400 57 3200 0 23400 29 23300 28 22400 2.7 23300 2.7 23800 2.5 400 0 4 27900 34 28300 34 26900 32 28300 32 2900 32 3300 2 019400 759 641100 765 65300 783 679400 779 724800 780 134300 7 19000 48 19000 77 25300 41 44500 45 4,700

Including agricultural and self-employed workers

- Trade	177,600	22.9	187,900	23.0	194,200	23.2	199,400	23.8	209,300	24.0	223,700	24.1	46,100	25.0
Wholesale Trade	48,600	6.2	51,600	6.3	53,500	6.4	53,100	6.3	55,100	6.3	57,800	6.2	9,200	18.9
Retail Trade	129,000	16.7	136,300	16.7	140,700	16.8	146,300	17.5	154,200	17.7	165,900	17.9	36,900	28.6
- Finance, Insurance & l	Real													
Estate	43,200	5.6	47,200	5.8	48,000	5.7	48,900	5.8	51,200	5.9	57,000	6.1	13,800	31.9
 Services & Miscellane 	ous 124,900	16.1	132,700	16.3	138,900	16.6	144,400	17.2	151,000	17.3	163,600	17.6	38,700	31.0
- Government	157,500	20.3	160,300	19.6	168,500	20.1	177,100	21.1	180,300	20.7	185,500	20.0	28,000	17.8

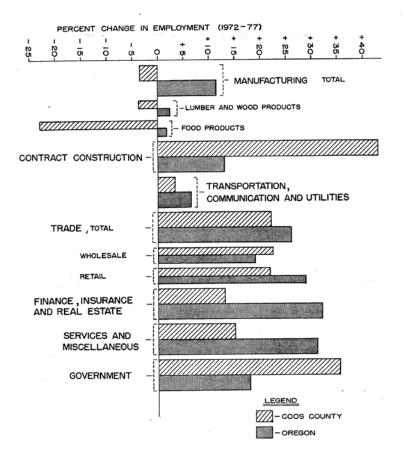
Figure HR-1



COMPARISON OF STRUCTURAL EMPLOYMENT SHIFTS, COOS COUNTY AND OREGON, (1972-1977)

Oregon Employment Division, "Annual Wage and Salary Summaries, 1972-1977"

Figure HR-2



COMPARISON OF STRUCTURAL EMPLOYMENT SHIFTS, COOS COUNTY AND OREGON, (1972-1977)

Lumber & Wood Products

Preserving the economic vitality of Coos County's lumber and wood products (LWP) industry is extremely important, as this sector directly provided one out of every five jobs in the area in 1977. Indirect beneficial "spin-offs" attributable to the lumber and wood products industry are addressed under "Basic and Non-basic Characteristics of Local Economic Structure" which follows in this report.

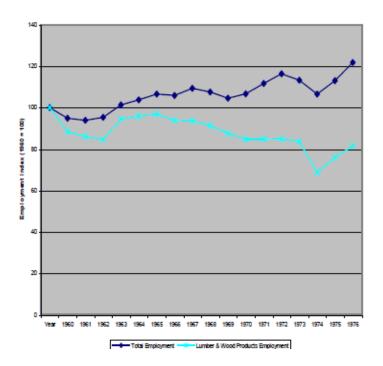
Table HR-13A summarizes trends in LWP employment since 1960. The graph accompanying the table makes it abundantly clear that local lumber and wood products employment is declining and contributing less and less to the local economy. There were about 6,220 LWP jobs in Coos County in 1960, which constituted that year. However, given the steady declines that have precipitated since that time, local LWP employment was reduced to 5,010 jobs in 1977, or 21.5% of the local work force. It is encouraging to note that the county's losses in this subsector were limited to 370 jobs between 1970 and 1977, although 1975 and 1976 were very bad years. Figure HR-3 also illustrates trends in local lumber and wood products employment since 1960.

Table HR-13A Comparison of Lumber and Wood Products versus Total Employment, Coos County, 1960-197714

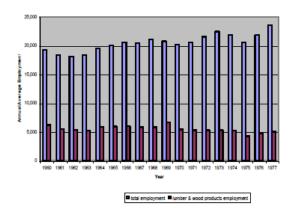
	Total Empl	loyment	Lumber & Wood Products Employment						
Year	Number	Index (1960 = 100)	Number	% of total employment	Index (1960 = 100)				
1960	19,320	100.0	6,220	32.2	100.0				
1961	18,320	94.8	5,500	30.0	88.4				
1962	18,120	93.8	5,350	29.5	86.0				
1963	18,410	95.3	5,260	28.6	84.6				
1964	19,570	101.3	5,870	30.0	94.4				
1965	20,050	103.8	5,960	29.7	95.8				
1966	20,570	106.5	6,020	29.3	96.8				
1967	20,460	105.9	5,830	28.5	93.7				
1968	21,110	109.3	5,820	27.6	93.6				
1969	20,770	107.5	6,680	27.3	91.3				
1970	20,190	104.5	5,440	26.9	87.5				
1971	20,600	106.6	5,280	25.6	84.7				
1972	21,560	111.6	5,280	24.4	84.7				
1973	22,460	116.3	5,280	23.5	84.9				
1974	21,870	113.2	5,200	23.8/	83.6				
1975	20,570	106.5	4,270	20.8	68.6				
1976	21,840	113.0	4,720	21.6	75.9				
1977	23,540	121.8	5,070	21.5	81.5				

¹⁴ Oregon Employment Division, Department of Human Resources, "Employment Statistics".

Comparison of Lumber & Wood Products Employment vs Total Employment, Coos County 1960-1977



Comparison of Total Employment to Lumber & Wood Products Employment in Coos County, 1960-1977





rence the CCD report cited. For brevity, a summary of the projected estimates

Volume I, Part 2 Page 234

CCD notes that "fluctuations in absolute LWP employment levels can be explained in part by...the number of housing starts on the national level", because "a strong correlation between new housing unit starts and CCD District LWP employment appears to exist for the 1960-1977 period." 110

Continued job losses in Coos County's LWP are inevitable. John Beutler reports in his study entitled Timber for Oregon's Tomorrow 111 that forest harvest volumes will decline sometime before 1995, but that precise determinations of when this will occur cannot be done because of free-market decision processes. a 1978 by CCD also addresses this phenomena. CCD states that:

"The mutually reinforcing causes (of future LWP employment losses) are (1) depletion of the resource, (2) federal government policy actions in managing the remaining resource and protecting the environment, and (3) productivity increases (automation) that displace labor." 112

Although limited in use, CCD has prepared estimates of projected job losses in Coos County's timber industry employment. Those interested in a detailed explanation of the estimates and their limitations should reference the CCD report cited. For brevity, a summary of the projected estimates by CCD is presented in Table HR-14.

Table HR-14 Projected Total Coos County Job Losses Due to all Identified Timber Availability and Productivity Influences 113

	1980's	1990's	2000's
Upper Limits	-7	796	1,578
Middle Limits	168	948	1,712
Lower Limits	355	1,111	1,856

CCD notes in its 1978 "Comprehensive Economic Development Strategy" that one way to mitigate and off-set LWP job losses would be to better utilize the area's lumber resources before exporting them from the region. For example, finished lumber and plywood manufactured locally could be processed to make kitchen cabinets, furniture, prefabricated homes, etc., which in turn could be exported from the County to Pacific Northwest and California markets.

Local Manufacturing

The following list represents a sampling of the Major Manufacturers located in Coos Bay-North Bend's urban area. Employment estimates are those published in the 1978-1979 "Directory of Oregon Manufacturers", printed annually by the Department of Economic Development. 114

Firm	Estimated Employment	Activity/Product
Weyerhaeuser Co, Inc.	1,640	Softwood veneer & plywood
Georgia Pacific Corp.	700	Softwood veneer & plywood
Coos Head Timber Co.	400	general sawmill & planing mill
Westlog, Inc.	200	general logging contractor
Menasha Corp.	175	paperboard mill
Moore Oregon Lumber Co.	150	general sawmill & planing mill
Cape Arago Lumber Co.	150	general sawmill & planing mill
Al Pierce Co.	115	general sawmill & planing mill

¹¹⁰ CCD-EIA, "Comprehensive Economic Development strategy, 1978-1979 Action Program", June, 1978.

¹¹¹ Timber for Oregon's Tomorrow: An Analysis of Reasonably Possible Occurrences; John H. Beuter, K. Norman Johnson, and H. Lynn Schuerman, January, 1976, School of Forestry, Oregon State University.

¹¹² CCD-EIA, "Projection of Future Job Losses in the Timber Industry in Coos County Due to Timber Supply Decline & Productivity Increases", April 24, 1978.

¹¹³ CCD-EIA, "Projection of Future Job Losses in the Timber Industry in Coos County...", 1978

¹¹⁴ Department of Economic Development, "Directory of Oregon Manufacturers, 1978-1979", January, 1978

4.3 EXISTING LAND USE

Inventory

Existing land uses in the County were inventoried by the County Planning Department in 1978 and mapped at a scale of 1 inch = 800 feet. This information, based on field surveys, has been transferred to a map base of another scale (2 inches = 1 mile) and accompanies the Comprehensive Land Use Plan.

Urban Areas

There are eight incorporated cities in Coos County, ranging in population from 950 to 14, 350. In area, they include about 0.84% of the County.

Table 1. Urban Areas

City	Population ¹¹⁹
Lakeside	1,150
North Bend	9,770
Coos Bay	14,350
Eastside	1,655
Coquille	4,655
Bandon	2,225
Myrtle Point	2,900
Powers	950

Because of the steepness of the uplands and seasonal or occasional flooding of the lowlands, urban areas in the County are generally located on marine terraces (e.g. Bandon and much of North Bend) or river terraces (e.g. Coquille and Myrtle Point). Much of Coos Bay, however, and part of North Bend are constructed on fill in lowland areas.

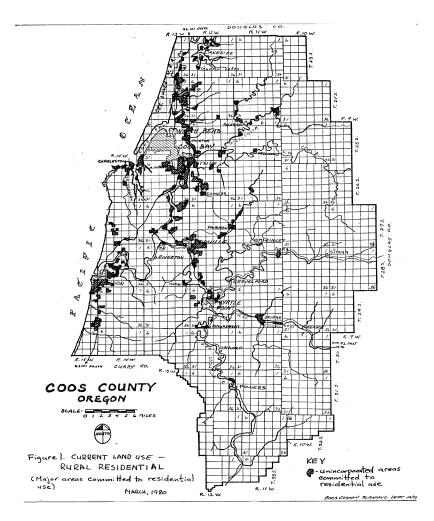
Unincorporated Land

Residential Land

The major unincorporated areas identified as committed to residential development (see Housing, section 4.5) are shown on Figure 1. Some of these areas, such as Barview, Millington and Bunker Hill, are

¹¹⁹ 1977 population estimates from <u>Oregon Population Shifts in the 1970's</u>, Bureau of Governmental Research & Service (University of Oregon, 1978).

considered urbanizing areas. Others, such as East Bay, are more rural in character though they may be near urban centers.



The highest concentration of residential land in the unincorporated portions of the County is in the Coos Bay area. There are also residential concentrations near the cities of Bandon and Coquille and north of Coos Bay in the Hauser area. Other committed areas are found along major highways and narrow river valleys such as Highway 101 north of Coos Bay and south of Bandon; Highway 42 from the Highway 101 junction south to Myrtle Point; and along the Millicoma River and the North Fork of the Coquille. Other areas of note are portions of Tenmile Lakes, the bluffs behind Lighthouse Beach, the Daniels Creek area, the Coquille-Fairview Road, the area inland from the mouth of Whiskey Run, the marine terrace northeast of Bandon, and the area around Bridge.

Unincorporated lands committed to residential development represent about 20,340 acres or about 2.0% of the County.

Agricultural Land

By the Commerce Department's current definition of farm, there are 650 farms in Coos County containing a total of 159,225 acres, or 15.4% of the total land area of the County (see Agricultural Lands, Section 3.1)

There are three main types of agricultural land in the County: lowlands along rivers, streams, and sloughs; elevated, flay-lying land on marine terraces; and hill land. Much, if not most, of the farmland in the first category can be found in the broad floor of the lower portion of the Coquille River and is seasonally flooded. The balance is largely dispersed in narrow stream valleys throughout the steep uplands. Valley land is used primarily for dairy land and hay production, though some is used for grazing beef cattle and sheep.

Farmland in hilly upland areas is used for grazing sheep and cattle and for woodlots. The major upland grazing areas are in the south part of the County. However, woodlot ownership and farm-forest production is important to farms throughout the County.

Forest Land

Over 84% of the total land area of the County is forest land. Forest lands of the County may be broken out as follows:

		120
Table 2.	Area of Forget I and by land along January 1, 107	75120
rabic 2.	Area of Forest Land by land class, January 1, 197)

Forest Land Class	Acres
Commercial	847,000
Productive-reserved	8,000
Unproductive	13,000
Total	868,000

[&]quot;Commercial forest land" is defined as land that is capable of producing 20 cubic feet per acre per year of industrial wood and is not withdrawn from timber utilization.

Of commercial forest land, about 109,000 acres are farmer-owned, 343,000 acres are owned by the forest industry, and 97,000 acres are in other private ownership. The balance, about 298,000 acres, is in public ownership (chiefly Federal).

Commercial Land

[&]quot;Productive-reserved forest land" is public land withdrawn from timber production through statute. ordinance, or administrative order but with otherwise qualifies as commercial forest land.

[&]quot;Unproductive forest land" is land incapable of yielding crops of industrial wood products because of adverse site conditions such as steepness, rockiness, sterile soils, and poor drainage. 121

¹²⁰ Bassett, Patricia M., <u>Timber Resources of Southwest Oregon</u>, (U.S.F.S. Resource Bulletin PNW-72, 1977), p.3.

¹²¹ Bassett, p. 25

Commercial uses are largely concentrated in urban and urbanizing areas. Throughout the rural part of the County, commercial enterprises are found in small communities such as Greenacres and Bridge and along major arteries such as Highway 42 between Coquille and Myrtle Point. There is a comparatively heavy concentration of commercial land along Highway 101 south of Bandon.

A business census conducted in 1967 by the U.S. Census Bureau indicated a total of 555 retail trade businesses, 87 wholesale trade businesses, and 334 selected services in the County.

Industrial Land

The steep topography of the County has generally limited the location of industry to the narrow valleys along rivers and sloughs and to the marine and river terraces. Other factors have influenced the location of industry in the County as well. The early and continued dependence on water transportation is responsible for the river or estuary locations of lumber mills and log storage decks. Proximity to the resource is an important factor to primary processors and has lead to the location of lumbermills throughout the County, the location of fish processors on harbors, and the location of packing and processing facilities near the cranberry bogs of Bandon.

Industrial land uses in unincorporated areas of the County are concentrated around Coos Bay, particularly in Charleston and on North Spit and Isthmus Slough. There are several sites both upriver and downriver from the City of Coquille. There are also industrial land uses near Norway and Powers, Dellwood, Hauser, Allegany, and Highway 101 south of Bandon.

Recreational Land

Taken together, State parks, County parks, and the Oregon Dunes National Recreation Area account for about 1.6% of the total area of the County. State parks are located primarily along the coast and inland along rivers (see inventory Section 4.8, Recreation). Uses include overnight camping, picnicking, and day use. County parks are designed primarily for fishing, boating, or day use and are located on rivers and lakes (see Section 4.8 for their distribution). The Oregon Dunes NRA is located north of North Spit and west of Highway 101.

Open Space

In addition to lands used for agricultural and forestry, the County's open space lands include city parks and open areas, the five golf courses in the County, State and County parks, and all areas zoned INR under the interim zoning ordinance (South Slough Estuarine Sanctuary, Eel Lake and Pony Creek watersheds, coastal shorelands from Whiskey Run south to the Coquille River, and from Crooked Creek south almost to Laurel Lake, and so on).

Ownership

About 66.8% of the land in Coos County is privately owned. Of the balance, approximately 24.1% is Federally owned with the Bureau of Land Management controlling over two-thirds of that total. The remainder is State-held land, County and city parks, road right-of-way, County forest, and other County and municipal lands.

Table 3. Land Ownership, Coos County 122

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¹²² Oregon State University Extension Service, <u>Coos County Resource Atlas</u>(1973), p.12.

	Coos C	ounty
Item	Acres	Percent
Total land in acres	1,031,040	100.0
Private land ownership	688,681	66.8
Public land ownership	342,359	33.2
Federal	248,446	24.1
State	63,904	6.2
Local	30,009	2.9

A breakdown of Federal and State ownership is shown in Tables 4 and 5.

Table 4. Federal land Ownership, Coos County¹²³

	Coos County	
Agency	Acres	Percent
Bureau of Land Management	191,691	49.90
U.S. Forest Service	59,953	47.00
Fish & Wildlife Service	54,071	1.40
Bureau of Reclamation		.50
National Park Service		.50
Navy		.03
Corps of Engineers	2,407	.20
Bonneville Power Administration	75	.01
Coast Guard	59	*
Post Office Department	1	*
All Federal agencies	248,446	
Percent federal ownership		24.10

^{*}Less than .01 percent total ownership

¹²³ Oregon State University Extension Service, p.13.

INTERIM ZONING

- In 1975, the County adopted the following zoning designations:
- IA-10 Interim Agricultural (10-acre minimum lot size)
- IA-20 Interim Exclusive Agricultural (20-acre minimum lot size)
- IFG-40 Interim Exclusive Forest & Grazing (40-acre minimum lot size)
- IFG-10 Interim Forest and Grazing (10-acre minimum lot size)
- IRR-5 Interim Rural Residential (5-acre minimum lot size)
- IR-1 Interim Residential (minimum lot size ranges from 6,000 sq. ft. if public sewer and water are available to one acre if they are not; excludes mobile homes)
- IR-2 Interim Residential (duplexes permitted; minimum lot size range same as for IR-1)
- IR-3 Interim Residential (multi-family residences permitted; minimum lot size ranges from 6,000 sq. ft. to two acres)
- IC-1 Interim General Commercial (provides for areas such as community shopping centers and business districts)
- IC-2 Interim Commercial (designates areas of heavy commercial development)
- IC-3 Interim Tourist Commercial
- IC-4 Interim Rural Service Center (designates areas for location of commercial and service facilities unique to agricultural and residential areas)
- ILI Interim Light Industrial
- IHI Interim Heavy Industrial
- IMC Interim Marine Commercial (designates estuarine shoreland areas where water-oriented businesses may be located)
- IMI Interim Marine Industrial (designates estuarine shoreland areas where water-related industrial activities may be located)
- IPW Interim Planned Waterfront (permits hotels, marinas, condominiums and multiple family dwellings as conditional use while protecting certain values such as water quality, visual resources, historical areas, open space)
- INR Interim Natural Resource (designates and protects areas such as marshlands, wetlands, historical sites, etc.; provides open space)

While application of interim zoning throughout the County is shown in greater detain on larger accompanying maps labeled "Alternative 1" (scale: 2 inches = 1 mile), the general areas where specific

zones are applied are indicated in Figures 2-4 on the following pages.

With several notable exceptions, application of the agricultural zones is generally restricted to lowlands along rivers, sloughs and streams, and to coastal terraces, particularly south of Bandon. Those exceptions are uplands in the Gaylord-Powers area and uplands east of the coastal terrace just north of the Coos-Curry county line where grazing is the chief agricultural activity. The areas zoned IA-10 represent perhaps 8% of the total area zoned for agriculture.

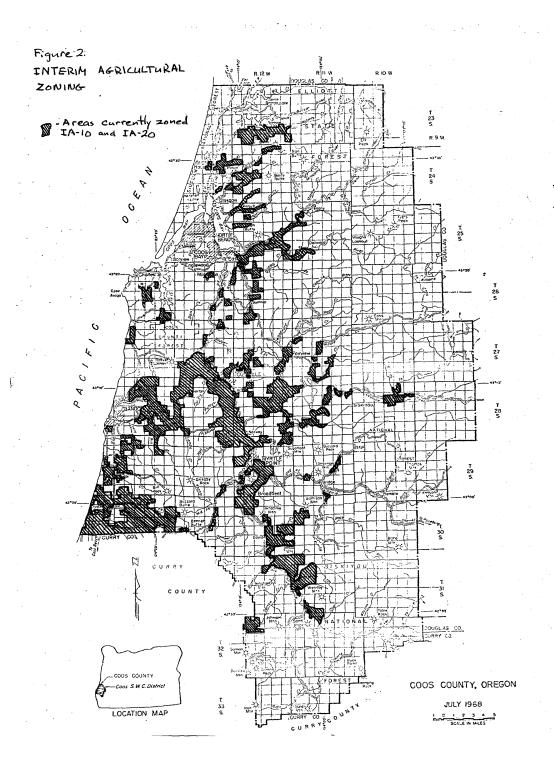
While the bulk of rural residential zoning occurs in the Bay area and south of Bandon, there is a significant amount in inland areas such as the West and East Forks of the Millicoma River; the upper reaches of Larson Slough; along Highway 42 from the Bay area south to the Coquille Valley; in the Coquille vicinity and sought on 42 to Myrtle Point, along the Coquille-Fairview Road to and including the Fairview area, and elsewhere. Most of the Tenmile Lake shoreline is zoned IR-2. There is also considerable acreage zoned IRR-5 west of Seven Devils Road to the Pacific Coast, including about a mile and a half of coastline at Merchants and Agate Beaches. The most extensive uses of IR-2 and IR-3 are along Tenmile Lakes as noted; in the Bunker Hill and Isthmus Heights areas; in Barview; adjacent to the City of Coquille; and in several areas south of Bandon, including over 300 acres east of Highway 101 just north of the County line.

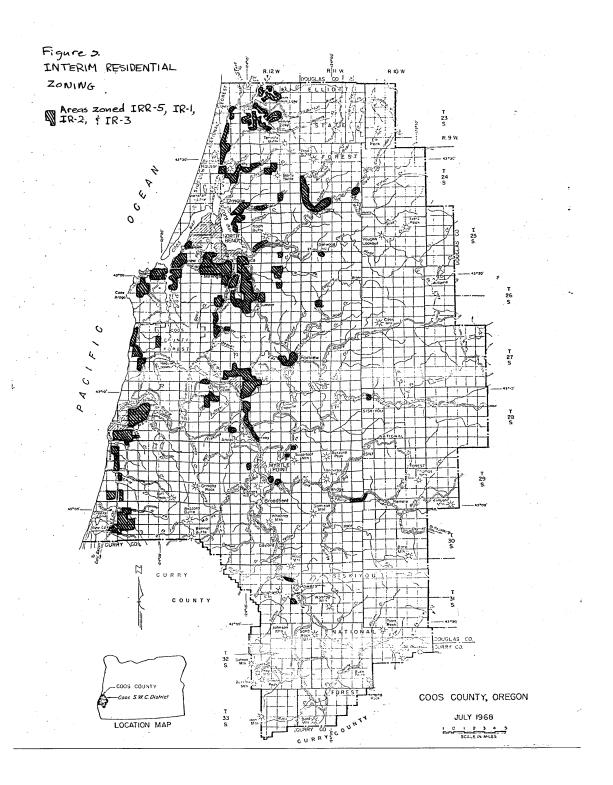
About 75-80% of commercial zoning outside of incorporated areas occurs on the coast terrace south of Bandon. Except for about 50 acres on Beach Loop Road, all of the commercially zoned property in this area is in a seven-mile strip adjacent to Highway 101. With very few exceptions, the remaining areas zoned commercial are in or near unincorporated population centers such as Hauser, Bunker Hill, Charleston, Sumner, Greenacres, and Fairview.

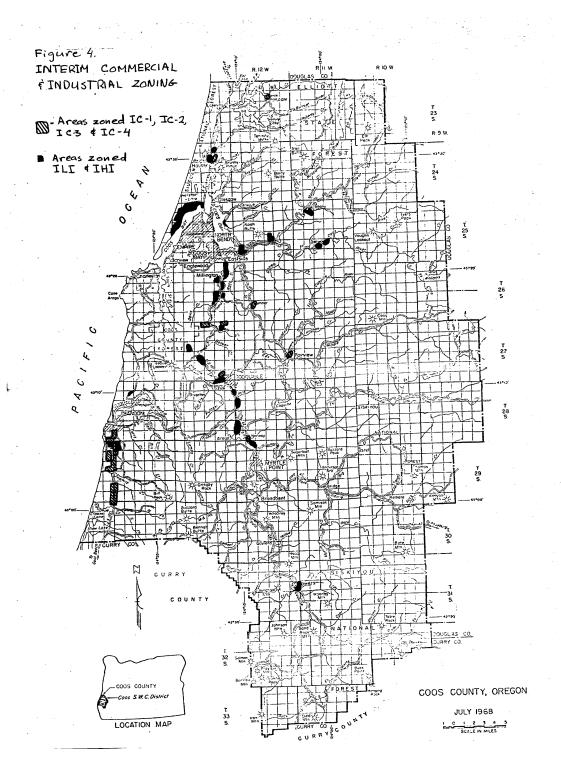
Industrially zoned areas are concentrated in the Bay area, including major portions of North Spit, at Christensen Ranch (north of where Coos River flows into Coos Bay), Pierce Point, and at several sites along Isthmus Slough. All of these areas area zoned Heavy Industrial. There are a few sites in the Hauser area; several in the Coos-Millicoma drainage, including one site of about 40 acres north of the highway at the confluence of the Millicoma and the South Fork of the Coos Rivers, another below the confluence of the West and East Forks of the Millicoma River, and two sites several miles up the South Fork of the Coos; two sites on Beaver Slough; and several along the Coquille River both downstream and for several miles upstream from the City of Coquille. Norway and Powers areas area also sites of industrially zoned property. The area around the Bandon Airport is zoned Light Industrial.

Marine Commercial and Marine Industrial zones are found only at Riverton and on Coos Bay, most notably at the Sitka Dock site and at the Charleston Boat Basin. The only areas of significant size designated IPW are on North Spit, Coos Bay, south of the IH-zoned Port properties, and along the west side of Cape Arago Highway north of Sitka Dock.

The INR zone has been used in municipal watersheds such as Eel Lake and Pony Creek; in several places in the Oregon Dunes NRA, including the Sandpoint and Snag Lakes area; in the South Slough Estuarine Sanctuary, at scenic headlands such as Coos Head and Lighthouse Point south to Cape Arago; on other coastal shorelands such as from Whiskey Run south to the Coquille River and from Crooked Creek south almost to Laurel Lake. Other areas receiving protection under this designation include portions of the North Tenmile Lake Shorelands, the area around Tarheel Reservoir (which has been used to supplement municipal water supplies during stress years), and portions of North Spit.







4.4 INDUSTRIAL AND COMMERCIAL USES

4.4.1 Industrial Land Needs

I. Purpose

The original purpose of this report - and still a major portion it - was to provide a projection of how much land industrial uses in Coos County would need to the year 2000. Such a task is typical to any rational comprehensive planning process; planning requires some reasonable idea of what the future is expected to bring in order t be prepared for future changes. In large part, however, determining how much land will be needed requires knowledge of a number of factors. Most importantly, decision-makers must be provided with an idea of the community's goals, what the community is likely to expect in the absence of any preparations for responding to expected future conditions, what problems impede achievement of local goals, and what strategies may be developed to overcome identified impediments.

This report directs its attention to three major objectives designed to respond to these concerns:

- i. It responds to the requirement for projecting industrial land needs to the year 2000;
- ii. It strives toward making available the quantity of industrial land that will be sufficient to allow the economic diversification necessary to meet the needs of the people of Coos County;
- iii. It provides background information and site analysis to help justify a goal exception to allow needed industrial uses on certain resource lands outside urban growth boundaries.

II. Setting

Physical Characteristics

Bound by the Pacific Ocean to the west and the Coast Range of mountains to the east, Coos County is roughly 215 miles (5 hours driving time) from Portland. the nearest major metropolis, and 525 miles (12 hours driving time) from San Francisco.

The Port of Coos Bay links Coos County to world markets and potentially to world resources, yet the comparatively poor quality of local land transport systems (roads and railroads) heightens rather than overcomes the County's historic geographic isolation from even regional markets and resources.

The limited number of roads and rail lines, their relative inefficiency in comparison to the transportation systems available in the Willamette Valley, are a product of at least three interwoven factors:

- a. Coos County's accessibility by means other than water transportation occurred fairly recently in economic terms (U.S. Highway 101 was effectively completed in 1936).
- b. Inaccessibility limited the size of the County's population; a small population could not justify massive expenditures for high speed/high volume transportation corridors.
- c. Rugged topography of steep forested hills interrupted by rivers and narrow estuarine valleys added a great amount of cost and difficulty to road and rail development as well as restricting the quantity of buildable land.

Associated Effects of the Physical Characteristics

The relatively poor quality of local economic support systems, such as portions of the transportation system, reinforces the County's geographic isolation. In turn, the isolation tends to limit the size of the potential market area for local goods and services, which hurts diversification efforts. Further, the shortage of flat land adjacent to good transportation systems seriously restricts the supply of suitable industrial land; this, too, makes diversification more difficult to achieve.

Economic Characteristics

The following tables are taken directly from the State Employment Division's publication, "Labor Trends".

Labor Force Summary for Coos County (By Place of Residence)

	December	November	Change	Percent	December
	1981	1981		Change	1980 ¹³¹
Civilian Labor Force ¹	27,660	27,640	+20	+0.1	27,870
Unemployment	4,550	4,720	-170	-3.6	4,670
Seasonally adjusted %	N/A	N.A	XXX	XXX	N/A
Total Employment ²	23,110	22,920	190	.08	23,200

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¹³¹ Due to revised estimating procedures between December, 1980 and January, 1981, data for 1981 and that of previous years are not strictly comparable.

¹ Includes employed and unemployed individuals 16 years and older. Data are adjusted for multiple job holding and commuting.

² Includes non-agricultural wage and salary, self-employed, unpaid family workers, domestics, agriculture, and labor disputants

Coos County Nonagricultural Wage and Salary Employment (by place of work)

	December	November,	December,	Change from	
	1981	1981	1980	November 1981	December 1980
Total	18,130	18,170	19,770	-40	-1,640
Wage & Salary Empl.	101.9	102.7	110.1	XXX	XXX
Index					
Manufacturing	4,510	4,310	4,770	200	-260
Durable Goods	3,630	3,680	3,920	-50	-290
Lumber & Wood	3,440	3,470	3,700	-30	-260
Other Durable Goods	190	210	220	-20	-30
Nondurable goods	880	630	850	250	30
Food Products	530	280	470	250	60
Other nondurable	350	350	380	0	-30
goods					
Nonmanufacturing	13,620	13,860	15,000	-240	-1,380
Construction	430	450	650	-20	-220
Transp, Commun,	1,450	1,460	1,680	-10	-230
Utilities					
Trade	3,620	3,580	4,080	40	-460
Finances, Ins. Real	840	840	840	0	0
Estate					
Services & Misc.	2,700	2,740	2,820	-40	-120
Government	4,580	4,790	4,930	-210	-350
Labor-Management	0	0	0	0	0
Disputes					

According to "Labor Trends":

"For the entire year, 1981, the preliminary average unemployment rate for Coos County was 15.8%, up slightly from the 14.1% rate recorded in 1980."

"Labor Trends" further notes that this rate was the highest unemployment rate recorded in Coos County since 1958.

Substantial decreases since 1978 in employment in "Lumber and Wood Products" and "Construction" categories have occurred as a result of record-high interest rates and the corresponding housing market slump. The "Trade" category has also fallen, likely as a spin-off of the currently poor local economy.

Coos County's historic dependence on the lumber and wood products industry (LWP) for much of its employment is well-documented in all economic reports on the County. The dangers inherent in such a one-sided economy are no longer confined to reports: they are evident in Coos County's depression-level unemployment rates, and in the increasing number of foreclosure notices and businesses failures. It is thus not surprising that "Diversification" has been the economic watchword in the County for many years.

While diversified economy does not prevent economic problems, it does help the local community - especially the local trade and service businesses - to be in a more flexible position to absorb the impacts of problems in a particular industry.

The major role of local government, especially through the comprehensive land use planning process, is, first, to gauge roughly how much land suitable for industrial uses should be provided to enable the diversification process to begin, and second, to ensure that the needed quantity of land is made legally available through the planning process. The next sections focus on these requirements.

III. Projections

A. Introduction

Projection of how much industrial land will be needed during the planning period implies a numerical result, an actual quantified acreage of land. Although there are dangers in relying too strongly on these "hard numbers" (as will be pointed out later), an attempt should be made to produce an estimate that can serve as a healthy cross-check to the planning process. The simplified projection process in this chapter gives a reasonable and usable estimate that is more defensible that detailed projections based on speculative assumptions.

B. Methodology

In support of work on the Coos Bay Estuary Management Plan, the Coos-Curry-Douglas Business Development Corporation (CCD-BDC) identified a 20-year need for additional industrial land of 1,467 acres (after adjusting for identified non-industrial needs, but not for those occurring outside Coastal Shorelands Boundaries).

The 1980 <u>draft</u> Comprehensive Plan for the unincorporated County outside the Coos Bay Estuary and Coquille River Estuary had originally proposed growth needs for the entire County that are actually less than the amount of land identified by CCD-BDC to be needed just for the Coos Bay Estuary. There are at least three primary reasons for the discrepancy between the 1980 <u>draft</u> plan projections and those in the CCD-BDC report:

- 1. The CCD-BDC report is a much more detailed study that analyzes specific subsectors of the economy;
- 2. The CCD-BDC report projects major growth in new industries (such as "mining") not foreseen in the 1980 <u>draft</u> plan;
- 3. Several of the industries identified by CD-BDC require more acres per employee than the range assumed by the 1980 <u>draft</u> plan.

The County-wide figures must now obviously be revised to account for the CCD-BDC projections, yet severe time constraints will not allow the revisions to be proposed to as high a degree of professional sophistication as in the CCD-BDC's

analysis. The following two alternatives are for approximating remaining industrial land needs.

Alternative A - Population proportions

Assumption: the ratio of approximate Coos Bay estuary area population to total County population can be equated with the proportion of industrial lands needed by the two areas.

According to 1980 census date, Coos Bay estuary area population is roughly <u>60%</u> of total County population. (The approximation simply adds the total population of the 5 County census divisions encompassing the Bay area or 37,376 persons out of a total 1980 Coos County population of 64,046.)

Therefore, if Bay Area industrial land needs of 1,467 acres can be equated with 60% of the total County-wide need, then:

Coos Bay Estuary Needs = 1,467 acres = 60%
 Remainder of County Needs = 978 acres = 40%
 Total County-wide = 2,445 acres = 100%

Alternative B

Assumption: the County either will, or should, maintain the current ratio of industrial employment to total employment to the year 2000.

The following table shows historic data through 1981 (1981 data is not seasonally adjusted) and projected data from the Boodt/Farness report. Of particular interest is the projected decline in "Industrial" employees by 2000 A.D. ["Industrial" employment is assumed for the purposed of this report to include the economic sectors of "Manufacturing" and "Transportation and Utilities" because the uses within these categories are those that are typically defined in zoning ordinances as being industrial uses.] As of December, 1981, the unadjusted figures show that Coos County's industrial employment as a percentage of total employment has already dropped below the desired level for 2000A.D.

Industrial Employees

	1970	1978	December 1981	1985	2000
% of Total Employees	39.3%	33.8%	25.8%	31.3%	27.2%
# of Employees	8,140	7,990	5,960	8,310	9,550

Coos County could determine as a matter of policy that maintaining a constant ratio of "Industrial" employees to total employment is a responsible local economic goal. Normally the percentage of Industrial employees in a growing area will decline as the growth helps achieve increased local trade and services. The historically unstable economy resulting from heavy dependence on one industry for employment opportunities

requires diversification of the economy. Maintaining a relatively constant share of industrial employees would be a hoped-for result of diversification.

The next step, then, is selection of a base year for maintaining a constant percentage of Industrial employment. The severity of Coos County's current recession suggests that recent industrial employment data is not appropriate for selection because it reflects an unusually low level of industrial employment. The most recent data year that is a rough midpoint between economic recessions is 1978. To select a low-percentage year would be contrary to public interest because it would yield a pessimistic projection.

As shown in the previous table, 1978 "Industrial Employment" as a percentage of total employment was 33.8%. <u>Assuming</u> that total employment in 2000 A.D. will be 35,100 as projected by Farness and Boodt, then the local policy choice for Industrial employment in 2000 A.D. will be 33.8% of 35,100 or 11,864 employees.

Subtracting the 1981 total of 5, 960 Industrial employees from the goal by 2000 A.D. of 11,864 industrial employees leaves 5,904 additional "Industrial" employees needed by 2000 A.D. (County-wide).

<u>Assuming</u> that the Bay Area will account in 2000 A.D. for a 60% share of these employees, based on 1980 census data, and that the balance of County will account for a 40% share, then:

 $40\% \times 5940 = 2362$ additional "Industrial" employees are needed by 2000 A.D. for the balance of the County.

Assuming a range of 5 - 10 employees/acre, ³ then:

<u>236-472</u> acres of vacant industrial land are needed by 2000 A.D. for the balance of the County.

The process failed to produce the intended results because the data were not strictly comparable. With few exceptions, it was not possible to match the separate date sources for each firm. Suspected but unproved causes of the problem could be that:

- 1. A surprisingly large number of firms may rent or lease their property instead of owning it;
- 2. Many firms may operate under a different name than listed in the Assessor's records;
- 3. The Assessor classes "industry" in a manner different from that used by the State Department of Economic Development and the County Planning Department;

Volume I Part 2

for Coos County.

³ Initial research attempted to compare two types of data: employees by firm versus acreage by firm. The data were developed from two different unrelated sources ("Covered Employment" from the State Employment Division and "Class 300 and 301 Industrially Assessed Acreage" from the County Assessor's records). Combined, the data were intended to give accurate figures on employees/acre by firm specifically

4. Some firms have one employment total but several different locations (resolution would require individual contacts with each firm).

Since an accurate figure cannot be determined, a reasonable estimate of employees/acre must suffice. CCD-BDC has suggested use of a range of 5 to 10 employees/acre as a reasonable figure. Other studies, including Kim A. Wright's (WETA Project) <u>Land Use Standards</u> and the Urban Land Institutes volume, <u>Industrial Development Handbook</u>, support the validity of this range.

Therefore, the figure assumed is a range of <u>5 to 10 industrial employees/acre</u>.

Discussion and Conclusions

Both alternatives present relative simple estimations of a future economy that is 20 years hence. Their relative simplicity makes it difficult to judge them on the validity of their statistical merit. A better way to compare them is from a local economic policy standpoint and on how adequately each alternative may help improve Coos County's economy.

The two proposed alternatives have the same goal: to improve the health of the local economy by aiding in diversifying the economy. However, the two alternatives each have a different means of reaching the same goal: Alternative A focuses directly on ensuring that inland areas have a 40% share of approved vacant industrial <u>land</u>, while Alternative B is based on maintaining a 40% share of <u>employment</u> for inland areas, which is then translated to an acreage figure by means of an assumed range of 5 to 10 employees/acre.

The disadvantage of Alternative b is that inland areas would be allocated on 14% to 245 of the identified need County-wide for industrial lands because of the use of the assumed employee/acre figure. The approach of Alternative A is more direct: maintain a constant proportion of Bay Area industrial <u>land</u> to inland industrial <u>land</u>. Alternative A thus provides a better means for diversifying the economy by more directly ensuring <u>greater choices of inland sites</u>. Maintaining an adequate supply of non-estuarine sites is important not only because many industries do not require an estuarine or shoreland location but also because many industries are "frightened" away from such sites because of the perceived difficulty of obtaining permits.

For these reasons, Alternative A is therefore selected as the more appropriate method for projecting industrial land needs to 2000 A. D. for the remainder of the County outside the Coos Bay Estuary area.

Coos County Industrial Land Needs: 2000A.D.

Coos Bay Estuary	1467 acres
Remainder of County (unadjusted)	978 acres
Total (County-wide) [unadjusted]	2445 acres

The Coos Bay Estuary Management Plan also protects an additional 465 acres as Industrial for sites that are justifiable as part of the very-long-term land-banking needs of Lumber and Wood Products firms. For the remainder of the County, it is appropriate to apply similar protection to the relatively few small sites proposed for LPW expansion (mainly in the urban growth areas of Coquille, Powers, and Bandon).

Finally, it must be noted that the remainder-of-County figure (978 acres) includes not only unincorporated areas but also areas <u>within</u> incorporated cities outside the Coastal Shorelands Boundary of the Coos Bay Estuary Management Plan.

IV. Site Analysis and Selection

A. Introduction

Earlier sections stressed the importance of industrial diversification to improve the health of the local economy and the local government's role in projecting the amount of industrial land required. This section discusses how the quantity required (978 acres outside the Coos Bay Estuary) can be provided.

B. Inventory

The availability of suitable industrial land determines whether the quantity demanded can be supplied. The crucial issue is the extent of <u>uncertainty</u> regarding what is available. This uncertainty takes three separate forms that must be addressed in the planning process:

- 1. Whether there exists a sufficient quantity of land <u>physically suited</u> for industrial use;
- 2. Whether there exists a sufficient quantity of land that is <u>legally suited</u> for industrial uses (the legal process must not inadvertently impede the efficiency of the market process but must insure the provision of appropriately designated land sufficient to support the marker process);
- 3. Whether the quantity required is actually <u>available</u> and being offered on the market.

A properly functioning market requires the constant provision of a diversity of sites sufficient to create competition and reduce monopolistic tendencies. The comprehensive planning process can directly address only the first two aspects above and must deal with market factors indirectly by providing what is hopefully a sufficient quantity of physically suitable and legally suitable sites.

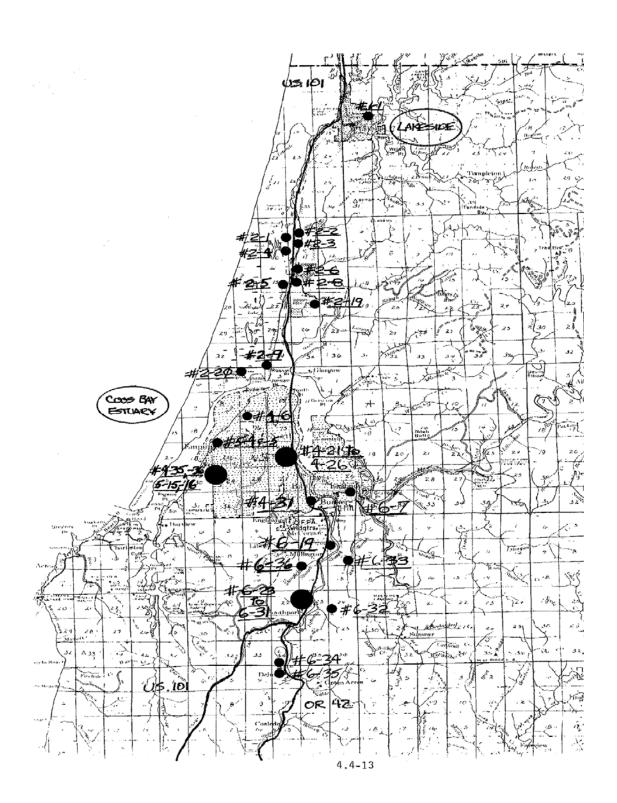
Accordingly, the following inventory of candidate sites was developed to provide a base from which to select the best sites to meet the identified need. Physical characteristics were the primary concern of a preliminary review; where a potential site was steep or contained less than one acre, the site was eliminated from the list of candidate sites. The review also included an occupancy/vacancy

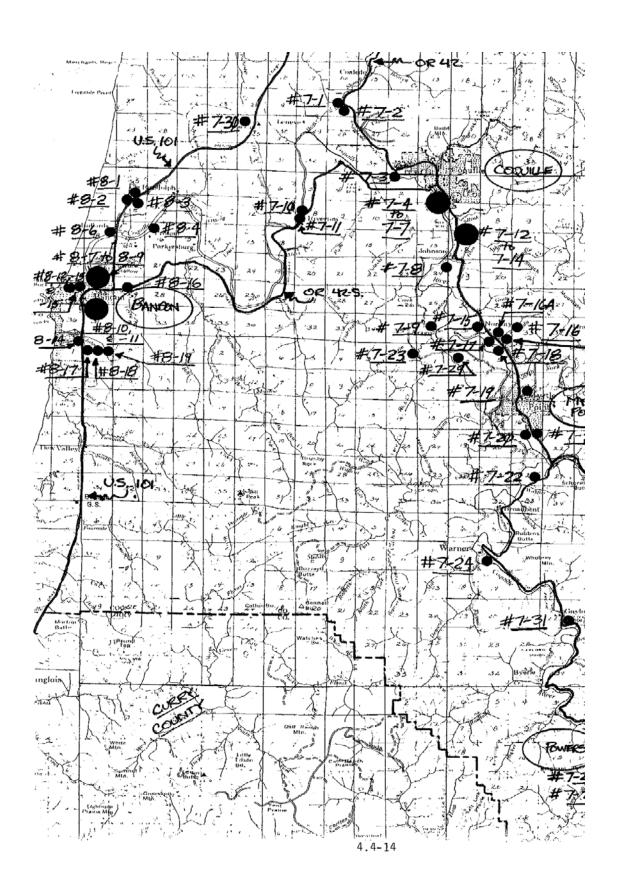
survey to eliminate sites that are fully occupied but to include the available acreage of partially occupied sites.

Since the land use planning program in Oregon tends to discourage most development outside urban growth areas (UGA's), especially where soils are considered suitable for agricultural or forest production, the location of sites has been listed together with the extent of agricultural/forest soils that occur on sites in unincorporated areas outside a UGA. This latter criterion reveals those sites which, if selected for an "Industrial" designation, must be justified through the taking of an exception to the Statewide goals.

Finally, the last column also notes whether the site is included within the Coos Bay Estuary Management Plan (CBEMP) or within the Coquille River Estuary Management Plan (CREMP). Separate goal exceptions are being taken, where needed, for these estuarine sites.

The location maps preceding the charts show the general location of each site (CBEMP sites are not shown). All sites are also mapped at 1'' = 800' to show actual parcel dimensions.





INDUSTRIAL SITE ANALYSIS

				Locat	ion				
Site #			(, Ss		ated	Outsi	de UGA	, and	Notes: <u>CBEMP</u> =Coos Bay Estuary
	occupied	partially occupied	Vacant acres available (potentially)	City	Unincorporated UGA		Ag. soils	Forest soils	E.R. = Exception Required CREMP = Coquille River Estuary
1-1		X	23	X					
2-1A			203			X	Yes	Yes	E.R.
2-1B			90			X	Yes	Yes	E.R.
2-2A			10			X	Yes	Yes	E.R
2-2B			7			X	Yes	Yes	E.R.
2-2C			18			X	Yes	Yes	E.R
2-3		X	4			X	Yes	Yes	E.R.
2-4A			21			X	No	Yes	E.R.
2-4B			19			X	No	Yes	E.R
2-4C			3			X	No	Yes	E.R
2-5		X	15			X	Yes	Yes	E.R.
2-6	X		0			X	N/A	N/A	
2-7									CBEMP
2-8			8			X	Yes	Yes	E.R.
2-9		X	50			X	No	No	?
2-10 Through 2-18									СВЕМР
2-19	X					X	N/A	N/A	
2-20									CBEMP
3-1 Through 3-11									СВЕМР
4-1 Through 4-5									СВЕМР
4-6		X	55	X					
4-7 Through 4-20									СВЕМР
4-21	X		0	X					
4-22			1	X					
4-23									CBEMP
4-24			2	X					
4-25			1	X					
4-26		X	3	X					

				Locat	ion				
Site #	occupied	partially occupied	Vacant acres available (potentially)		Unincorporated UGA	Outsi	Ag. soils	Forest soils	Notes: <u>CBEMP</u> =Coos Bay Estuary <u>E.R.</u> = Exception Required <u>CREMP</u> = Coquille
	00	pa	V av (p	Ci	ρĎ				River Estuary
4-27 Through 4-30									СВЕМР
4-31	X		0	X					
4-32 Through 4-34									СВЕМР
4-35			116	X					
4-36			204		X*				*(Would be placed in UGB)
5-1 Through 5-3									СВЕМР
5-4 &5-5		X	3	X					
5-6 Through 5-14									СВЕМР
5-15			25		X		Yes	Yes	(Would go to UGA)
5-16	X			-					(Reservoir)
5-17 Through 5-23			1	1		1			СВЕМР
6-1 Through 6- 6									СВЕМР
6-7			7	X					
6-8 Through 6-16A									СВЕМР
6-16B Through 6-17C			0						(Forested Hillsides)
6-17A									CBEMP
6-18									CBEMP
6-19A & -19B			7		X		N/A	N/A	
6-19C	X		0		X				
6-20 Through 6-22									СВЕМР

6-23		X	25			X	Yes	Yes	E. R. (North ½ is Rural Residential)
Site #			8 0		ated	Outsi	de UGA	, and	Notes: <u>CBEMP</u> =Coos Bay Estuary
	occupied	partially occupied	Vacant acres available (potentially)	City	Unincorporated UGA		Ag. soils	Forest soils	E.R. = Exception Required CREMP = Coquille River Estuary
6-24									CBEMP
6-25		X	5			X	Yes	Yes	E.R.
6-26	X		0				N/A	N/A	
6-27		X	4			X	Yes	Yes	E.R.
6-28	X		0				N/A	N/A	
6-29	X		0				N/A	N/A	
6-30			22			X	Yes	Yes	E.R
6-31	X		0				N/A	N/A	
6-32		X	6			X	Yes	Yes	E.R.
6-33	X		0			X	N/A	N/A	
6-34			5			X	Yes	Yes	E.R.
6-35			31			X	Yes*	Yes*	E.R (Filled Land)
6-36	X		0				N/A	N/A	
7-1 & 7-2	X		0		X				
7-3	X		0			X	N/A/	N/A	
7-4			6	X					CREMP
7-5	X		0		X				CREMP
7-6			3		X				
7-7	X		0		X				
7-8	X		0			X	N/A	N/A	CREMP
7-8A	X		0			X	N/A	N/A	
7-9	X		0			X	N/A	N/A	
7-10			4			X	Yes	Yes	CREMP
7-11	X		0			X	N/A	N/A	CREMP
7-12	X		0			X	N/A	N/A	
7-13	X		0			X	N/A	N/A	CREMP
7-14	X		0			X	N/A	N/A	
7-15			7			X	Yes	Yes	E.R.
7-16	X		0			X	N/A	N/A	
7-16A	X		0			X	N/A	N/A	
7-16B	X		0			X	N/A	N/A	
7-17	1		28		İ	X	Yes	Yes	E.R. (CREMP)
7-18	X		0			X	N/A	N/A	
7-19	Ī		21		X				
7-20			29		X				
7-21	X		0		X				
7-22			14			X	Yes	Yes	E.R.

7-23	X		0			X	N/A	N/A	
7-24	X		0			X	N/A	N/A	
7-25			24		X				
Site #	occupied	partially occupied	cres Ily)	City	Unincorporated UGA	Outsi	Ag. soils	Forest soils	Notes: <u>CBEMP</u> =Coos Bay Estuary <u>E.R.</u> = Exception Required <u>CREMP</u> = Coquille River Estuary
7-26		X	20		X				
7-27			29			X			
7-28		X	20		X				Powers (Airport)
7-29 7-30		X	100			X			(Coquille Valley Airport-separate goal exception)
7-30			100			Λ			County Industrial Park E.R.
7-31	X		0			X	N/A	N/A	
8-1	X		0			X	N/A	N/A	
8-2	X		0			X	N/A	N/A	
8-3	X		0			X	N/A	N/A	
8-4A	X		0			X	N/A	N/A	
8-4B	71		6			X	Yes	Yes	CREMP
8-4C	X		0			X	N/A	N/A	
8-5	X		0			X	N/A	N/A	
8-6	7.		5			X	Yes	No	CREMP
8-7			10	X					CREMP
8-8	X		0	X					
8-9	71		11*	X					CREMP (When filled*)
8-10	X		0	X					
8-11		X	35 40		X	 X	 Yes	 Yes	(Some Residential) E.R.
8-12	X		0	X					
8-13	X		0	X					
8-14		X	18			X	Yes	Yes	E.R.
8-15	X		0	X					
8-16A	X		0			X	N/A	N/A	
8-16B	X		0			X	N/A	N/A	
8-17			78			X	Yes	Yes	E.R.
8-18	X		0			X	N/A	N/A	Airport
8-19			290			X	Yes	Yes	E.R.

Summary Chart of Candidate Industrial Sites

1811 total vacant acres of industrial sites (outside the CBEMP), composed of:

238 acres in incorporated cities

126 acres	Coos Bay
55 acres	North Bend
23 acres	Lakeside
7 acres	Eastside
6 acres	Coquille
21 acres	Bandon

• 417 acres in unincorporated Urban Growth Areas (UGA's)

236 acres	Coos Bay
3 acres	Coquille
50 acres	Myrtle Point
93 acres	Powers
35 acres	Bandon

• <u>1156 acres</u> in the remaining unincorporated County.

C. Site Selection

As shown in the preceding chart, <u>1811 acres</u> of land have been identified as physically suitable for industrial uses. The identified need for industrial land is only <u>978 acres</u> for the area outside the Coos Bay Estuary Management Plan, to which must be added <u>100 acres</u> of land identified in the CBEMP as being needed outside the Coastal Shorelands Boundary for the "Other Manufacturing" category. This 100-acre need has not yet been applied to actual sites. Some limited sites can also be justified separately as part of the very-long-term land-banking needs of Lumber and Wood Products firms. These sites, totaling 105 acres, include:

Site #	Acreage	Firm			
1-1	23	Bohemia, Inc.			
7-4	6	G.P.			
7-6 7-22	3	G.P.			
7-22	14	G.P.			
7-25	24	A.H. Powers			
7-26	20	G.P.			
8-6	5	G.P.			
8-7	10	Moore Mill			
Total = 105 acres					

Except for #7-22 and #8-6, these sites have already been included within urban growth area proposals by various cities in anticipation of localized future harvest of maturing timber stands. Therefore:

1811 acres -978 acres -100 acres -105 acres	•	candidate industrial sites outside CBEMP area identified need outside CBEMP area unallocated need from CBEMP findings long-term LWP needs outside CBEMP area
628 acres	•	in "excess sites" that must be eliminated

1183 acres = adjusted need, from above.

There are many alternative methods for selecting sites, yet non can guarantee that those selected as "best" (and therefore deserving of an "Industrial" designation) will ultimately become available. Instead, it may be more appropriate to find sites that should <u>not</u> be designated "industrial". To balance the need, the following candidate sites are appropriate for elimination of Industrial designation:

- 1. #2-4A, B, and C. These prime industrial sites are entirely within the DNRA "inland sector" and thus also subject to the threat of condemnation.

 [Area removed = 43 acres]
- 2. <u>#8-17 (portion).</u> The northernmost 40 acres of this site west of the Bandon airport are removed from consideration because of the neighboring residential uses to the north and west.

[Area removed = 40 acres]

3. #8-19. This large site east of the Bandon airport should be considered for an Industrial designation in a future plan review and update. Its removal from consideration in this plan will help reduce the disproportionately large amount of industrial land proposed for the Bandon area.

[Area removed = 290 acres]

4. #4-36 (portion). The preceding site areas are located within the unincorporated County. This site, however, is adjacent to the Coos Bay city limits just to the west of the Pony Creek reservoir system watershed. A small reduction in the size of this site, the largest in the entire County, will help promote the development of other sites away from the Coos Bay Estuary that also tend to have good access (rail and road) and minimal potential compatibility conflicts with neighboring use. Since this site is the only one within the City of Coos Bay that will be given a "Heavy Industrial" designation rather than the "Commercial/Industrial" designation applied on all other Coos Bay sites, the 40-foot width perimeter area required to be reserved as a buffer strip must be subtracted from the available acreage of the site (about 16 acres). The remaining necessary reduction can occur on the southernmost 28 acres.

[Area removed = 44 acres]

Total sites now removed equals 417 acres.

Sites now proposed t fulfill the identified need (1,183 acres, as adjusted) include:

238 acres within incorporated cities

126 acres	Coos Bay
55 acres	North Bend
23 acres	Lakeside
7 acres	Eastside
6 acres	Coquille
21 acres	Bandon

373 acres within Urban Growth Areas (UGA's)

192 acres	Coos Bay
3 acres	Coquille
50 acres	Myrtle Point
93 acres	Powers
35 acres	Bandon

<u>572 acres</u> in the remaining unincorporated County, plus 293 acres justified through the Riley/McKeown exception (Coos County Comprehensive Plan, Volume I, Part 3, Section 8.0).

Of these sites:

- 1. No goal exception is required for 50-acre sites #2-9 (contains no agricultural or forest soils);
- 2. Separate goal exceptions are being taken for three sites totaling 15 acres within the area of the Coquille River Estuary Management Plan.

Therefore, the total acreage of industrial sites within the unincorporated County for which goal exceptions must betaken for use of agricultural and forest land equals <u>507 acres</u>, plus the Riley/McKeown properties.

Industrial uses involving the primary processing of agricultural or forest products harvested on-site are permitted within the Agriculture and Forest designations and therefore do not require the special protection afforded by the Industrial designation. Accordingly, such uses do not require a goal exception.

D. County-Owned Industrial Park

One of the sites selected for the "Industrial" designation is a 100-acre portion of the Coos County Forest adjacent to the County's Beaver Hill solid waste disposal site. The parcel has certain obvious advantages, primarily its location adjacent to U.S. Highway 101 at a mid-point between Coos Bay and Bandon and the presence of unused heat (steam) from the solid waste disposal process that could have industrial energy uses. Perhaps the best advantage of the site is that it is publicly-owned; the County can thus directly attack problems in availability of

suitable industrial land by making portions of the site available for industrial users.

Development of the site by the County could range from simple lease of "raw" land to complete site preparation with roads, services and even speculative buildings with lease/rent options. The appropriate level of development will depend largely on market conditions and the financial capability of Coos County.

I. INTRODUCTION

The purpose of this report is to outline the most appropriate process for designating specific sites for commercial use and development for the duration of the planning period.

The overall process has several important components which are addressed as follows:

- Part II is designed to project the amount of additional land in acres needed for commercial use to the year 2000. Inventories of population, employment and existing commercial land are used to calculate the acreage needed.
- Part III considered alternative methods designating general areas and then specific sites within the county to meet the need projected in Part II.

II. PROJECTION OF NEED

A. General Discussion

1. Purpose

This section is designed to estimate the amount of additional commercial land needed to the year 2000; the derived figure will provide a justifiable basis for the eventual site specific designations proposed in Part III. Two alternatives are considered for projecting the amount of land needed.

2. Inventories

Three distinct types of inventoried data are available (Tables C-1, C-2, and C-3).

Table C-1 displays the results of the commercial portion of a county land use inventory accomplished in 1978 for all portions of the county except the City of Coos Bay. (Coos Bay acreage figure supplied courtesy of Coos Bay Department of Community Development.)

TABLE C-1

Geographic Area 1978 Commercial Acreage Α. Incorporated Cities Lakeside 12 1. 90 2. North Bend 200 3. Coos Bay 4. Eastside 1 Coquille 65 5. 16 6. Myrtle Point 7. 4 Powers Bandon 8. 34 TOTAL = 422 Unincorporated Urban Growth Areas В. 1. Charleston/Barview (Coos Bay) Bunker Hill/Bay Park/ Millington/Libby (Coos Bay) 36 2. Coquille 2 0 3. Myrtle Point 0 4. Powers 5. Bandon 17 55 TOTAL = All other Rural Areas (TOTAL) 79 556 GRAND TOTAL (A, B & C)

The separate portions of Table C-1 reveal that:

- i. The cities of Coos Bay and North Bend together account for over 50% of the existing commercial acreage in the county;
- ii. incorporated cities account for over 75% of the total commercial acreage;
- iii. cities and UGAs account for more than 85% of the total commercial acreage.

Table C-2 shows 1978 commercial employment [Source: State Employment Division] and projected commercial employment in the year 2000 [Source: US Army Corps of Engineers, "Coos County, Oregon Economic Survey and Analysis" (Unpublished)].

TABLE C-2

Commercial Employment	1978	2000
Contract Construction	850	1020
Trade	4400	8100
Finance, Insurance & Real Estate	850	11,00
Services	2925	<u>6000</u>
TOTAL COMMERCIAL EMPLOYMENT	9025	16220

Table C-3 displays the Portland State University population estimates for 1978 and 2000 (as derived for UGA's by Coos County Planning Department). The year 2000 figure is the "High" estimate provided by PSU (See Population & Housing Sections for further discussion).

TABLE C-3

AREA	ESTIMATED	POPULATION
Cities	1978	2000
Lakeside	1580	2300
North Bend	10,300	15,000
Coos Bay	15,300	23,000
Eastside	1680	2330
Coquille	4700	6020
Myrtle Point	3000	4370
Powers	975	1340
Bandon	2450	4390
TOTALS (Cities)	39,985	58,750
Unincorporated Areas		
Urban Growth Areas		
Charleston/Barview	2645	3530
Bunker Hill/Bay Park/Millington	2635	3110
Coquille	676	1010
Myrtle Point	100	145
Powers	0	0
Bandon	248	359
SUBTOTALS (UGA's)	6304	8154
All Other Rural Areas	16,911	<u>25,606</u>
-		·
	Estimated	d Population
	<u>1978</u>	2000
TOTALS (Unincorporated)	23,215	33,760
GRAND TOTALS - COUNTY-WIDE	63,200	92,510

Volume I Part 2

B. Calculations

1. Alternative Methods for Projecting Need

Two alternatives are worth considering for determining need, although each is based on the assumption that an existing (1978) ratio will remain the same to the year 2000.

a. Commercial Employees per Commercial Acre

This alternative assumes that the existing ratio of the number of commercial acres required to support the current number of commercial employees will remain the same to the year 2000. This assumption allows a calculation of needed additional acreage to be based on employment projections for commercial employees.

The advantage of this alternative is that it can be used to account for the larger relative increase in commercial employment that has been projected by the Army Corps and other studies. The major disadvantage is that this method cannot be easily disaggregated for unincorporated urban growth areas because employment data is unavailable for those areas.

b. Population: Commercial Acreage Ratio

This alternative assumes that this existing ratio will

continue to the year 2000, so that needed acreage can be calculated based on population projections.

This method overcomes the previous method's disadvantage, because population data has been prepared for highly specific areas of the county. The lightimacy of UGA commercial designations can therefore be more accurately checked.

However, this alternative cannot account for the disproportionately large increase projected in commercial uses. [See further discussion in Section II C. "General Problems."]

The calculations for each are made in the next section.

2. EMPLOYEES/ACRE ALTERNATIVE

Step a. Calculate additional commercial employment 1978-2000

Subtracting the 1978 total from

the 2000 total in Table C-2 additional

yields: 7195 employees

Step b. Calculate existing commercial employees/acre

Dividing the 1978 total Commercial

employment (Table C-2) by the grand

total 1978 commercial acres (Table

C-1) yields:

16 employees/ac.

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Volume I Part 2

Step c. Calculate total needed additional commercial acres to year 2000

Dividing Step a. by

7195

Step b. yields:

16 Empl./ac.= 450 Additional acres

- 3. POPULATION: ACREAGE RATIO ALTERNATIVE
 - a. County-wide Method
- Step i. Calculate additional population for 1978-2000

Subtracting the 1978 total

from the year 2000 total in

Table C-3 yields:

29,310 additional persons

Step ii. Calculate existing population per commercial acre

Dividing the 1978 total County

population (Table C-3) by the

grand total 1978 commercial

acres (Table C-1) yields:

114 persons/com. acre

Step iii. Calculate total needed additional commercial land

(in acres) to the year 2000

Dividing Step i. by

Step ii. yields:

257 additional acres

b. Specific Area Method

The same procedure used in the county-wide method is used here. That is, the existing population: commercial acreage ratio is calculated for specific areas and then is compared to projected growth for each area. The results are as follows:

Volume I Part 2

14.5 21.5	AREA	RATIO		ITIONAL COMMERCIAL ES NEEDED			
(l) <u>Cities</u>							
	Lakeside	132:1		6			
	North Bend	115:1		41			
	Coos Bay	77:1		100			
	Eastside	1680:1		1			
	Coquille	72:1		18			
	Myrtle Point	188:1		7			
	Powers	244:1		2			
	Bandon	72:1		27			
			TOTAL =	202			
/ O)	t-3 7						
	porated Areas						
(a) <u>UG</u>	A's	,					
	Charleston/Barview/						
	Bunker Hill/Bay Park/						
	Millington	147:1		9			
	Coquille	338:1		1			
	Myrtle Point	NA		NA			
	Powers	NA		NA			
	Bandon	15:1					
			TOTAL =	17			
(b) <u>Al</u>	l Other Rural Areas	214:1		41			
		GRAND 1	TOTAL =	260			

4. SUMMARY OF PROJECTIONS

The two alternatives combined project a need for additional commercial land to the year 2000 in the range of 250 to 450 acres.

Since it would not be appropriate to select one method and rely upon it to project commercial needs accurately, (in view of the special advantages and disadvantages inherent in each method), both methods will be used to give a range of rough estimations of need.

The employers/acre method is expected to give a closer indication of need because it accounts for high commercial employment gains. Therefore, the high figure of the range (450 acres) is more appropriate to use for determining need. The population to commercial acreage ratio can then serve as an indicator of the absolute minimum need for a particular geographic area. That is, if the eventual allocation of commercial designations to a particular area falls short of the low range projection, the allocations are likely to be insufficient to meet the projected need.

14

- C. General Problems With Projecting Commercial Land Use
 Commercial uses are retail and wholesale trade and services that
 constitute the supply side of the local economic market. Their
 growth, and therefore their need for additional land, is dependent
 on at least the following major factors:
 - i. The health of local industries, especially those that export to markets outside Coos County, will affect the amount of employment (and unemployment) in the area.

 Sudden unemployment in the forest products industry, for example, produces a chain reaction in all sectors; workers laid off from their jobs usually tend to reduce or defer retail expenditures they would otherwise have made, and sometimes must move out of the area to find
 - ii. The health of the national economy affects not only export industries, as noted above, but local commercial enterprises as well. For example, in a period of relatively high interest rates on borrowing, retail enterprises often defer expansion (that would create construction jobs). Potential home buyers either defer purchase or cannot qualify for loans. The resulting is new unemployment in the housing construction trade and associated businesses (such as plumbing, electrical work, and lumber sales).
 - iii. The size of the local population markedly affects the type of commercial uses found in that area. As Coos County's population increases, the greater market size attracts new businesses to the area that formerly were located only in larger trade areas (such as Eugene and Portland). The result is that more local income is spent locally, generating

new employment not only in the new businesses and in construction trades, but also creating "Spinoff" employment to a lesser extent throughout the entire local economy.

This discussion suggests that simple stright-line trend analysis is very risky and highly subject to change that cannot be predicted accurately. It is possible to project a future reduction of Coos County's "Trade Drain" to the Eugene/Portland market area because the County's projected population increase is likely to create a local market size large enough to attract new retail businesses that formerly were located outside the county.

However, these general estimations cannot legitimately be used to project in any detail what the reduction in the trade drain will mean in terms of eventual land needs.

The simple methods used to give a good rule-of-thumb estimation of need, but they cannot be used to confer a high degree of accuracy on eventual commercial land designations for specific areas.

III. SITE DESIGNATION PROCESS

A. General Discussion

Determining which sites in the county are most appropriate for commercial designation requires a consideration of three separate processes.

- First, it is important to determine the general types of areas within the county that are most appropriate for consideration. Part B explores the distinctions between urban and rural levels or commercial development, and considers the special circumstances of existing rural commercial uses outside rural centers.
- Second, the plan should specify the types of uses expected to occur in each area, since uses that are appropriate for one area may not be appropriate for another area. Part C outlines a general schedule of uses to fulfill this requirement.
- Third, there must be a process for designating specific sites (in unincorporated areas) for commercial use, based on criteria that allow consideration of each site's suitability and compatibility with surrounding uses. Part D outlines those criteria and a method for designating specific sites.

B. General Area Selection

Commercial uses can be categorized in part according to their location and the type of market they serve. At the most basic level, commercial uses can be distinguished as being either urban or rural. This simple distinction serves well to describe

those uses that occur in cities and unincorporated urban growth areas (UGA's). With few exceptions, uses located in urban areas serve urban markets (as well as rural markets) and can therefore be considered urban level uses.

The distinction is not as simple or clear for rural areas.

- i. Rural Centers (see Rural Housing, 4.3.6, "restricted definition")
 have historically developed to serve as social and commercial
 focal points for their environs. Usually the commercial
 uses within them are oriented toward serving rural neighborhoods although there are occasionally other uses (such as
 restaurants, craft shops and the like) that serve much wider
 areas or also serve tourists and travelers.
- ii. Some commercial development has occurred outside UGA's (prior to the imposition of zoning requirements) that serves urban markets even though located in a rural area.

Commercial designations would not be appropriate or justifiable in all parts of the county because they may occasionally be incompatible with adjacent uses or exceed the carrying capacity of the local transportation system. Nevertheless, it is appropriate to identify the following general areas for some extent of commercial designation in the plan:

i. Cities and Urban Growth Areas.

Most intensive commercial uses will desire to locate near municipalities because of the proximity and size of the urban market.

ii. Rural Centers

These areas provide important limited commercial shopping areas for their residents and their surrounding rural areas; they are designated "Rural Center", which allows for a variety of commercial, community and residential uses.

iii. Existing dispersed rural sites.

By definition, these are legally established commercial uses outside cities, UGA's, and Rural Centers. Their designation as "commercial" rather than as "non-conforming" will help the County ensure that the integrity of vested property rights are given maximum protection.

iv. Rural residential sites for neighborhood stores

Although rural centers will provide commercial shopping opportunities in certain rural areas, many rural areas still remain a considerable distance from necessary convenience shopping places. This problem could be overcome by allowing neighborhood convenience stores as a conditional use within areas designated rural residential. The most important criteria for approving the conditional use would likely be whether the neighborhood convenience store would be (or could be made) compatible with the surrounding residential area.

C. General Schedule of Uses

1. Cities and Urban Growth Areas

For these areas, <u>all</u> wholesale and retail trade and services would be appropriate to serve the urban market areas. (The zoning ordinance may discriminate among those uses that are appropriate in some zones but not in others.)

2. Rural Centers

The following uses would enable these areas to fulfill their role:

- a. Neighborhood stores and services, where such uses are intended, for the most part, to serve the Rural Center and its environs;
- b. Tourist/traveler stores and services;
- c. Existing (developed) commercial uses.

3. Existing dispersed commercial development

By definition, these are identified sites outside cities,
UGA's and Rural Centers where commercial development has
previously been legally established.

4. Home Occupation

This is a type of use that would not be designated commercial but nevertheless deserves recognition because of its legitimacy as a "quasi-commercial" use. To ensure that each property so used remains residential in appearance while allowing the maximum use of the property for "in-home" businesses, the

following criteria would be appropriate:

- i. In rural areas, any building on the premises could be used for a home occupation.
- ii. In cities and urban growth areas, only dwellings could be utilized for home occupations.
- iii No retail sales would be permitted to take place on premises.
- iv. The home accupation would not be permitted to generate traffic beyond the carrying capacity of the street or road providing access to the property.
- v. No sign would be permitted larger than 4 square feet.

 Such a sign would only be used to identify the existence of the home occupation.
- vi. Other than an identification sign less then 4 square feet, no outward appearance as a commercial use would be permitted.

D. Specific Site Selection

l. <u>Criteria</u>

The suitability, compatibility, and locational requirements can be considered in two categories; those that commercial users would typically desire and those typically imposed by a plan and its implementing ordinances.

Usually, sites must be relatively flat with few structural or drainage problems. The location must be within reasonable proximity to the market area and must have good transportation access. Frontage (and therefore visibility) along a major collector, minor arterial, or "frontage"

road must normally be possible unless the use is located within a larger shopping center.

Rural Centers generally meet these suitability and locational requirements: if no sites are available for a proposed commercial use, an area contiguous to the rural center boundary, which otherwise meets these requirements, could be re-designated and rezoned "Rural Center" if need for an appropriate use can be shown.

ii. Typically imposed compatibility requirements.

Because of their intensity, commercial uses often create compatibility problems with adjacent uses. Although aesthetic appearance is an occasional problem, the most common problem is associated with the automobile traffic generated by a commercial use.

Traffic problems create noise and air pollution for neighboring residences, reduce the efficiency of arterials in providing mobility for "through-traffic" and can create parking shortages for uses adjacent to the commercial use. A zoning ordinance could respond to these possible problems by, for example, requiring a specific number of off-street parking spaces per square foot of commercial building or per employee.

The site selection process can also alleviate some of the expected problems by limiting the designation of commercial along certain arterials and by prohibiting or restricting "spot" designations of single commercial sites in areas generally proposed for residential use.

2. Process

The actual process for selecting specific sites relies on the criteria discussed previously as applied to citizen preferences expressed in the 1979 "Winter Workshop" citizen involvement process. The sites proposed for commercial designation can then be compared to the rough estimating methods proposed in Section II to check whether the amount of proposed commercial acreage falls within the suggested ranges.

Rural Centers on the other hand have been defined by tightly drawn boundaries which may not provide sufficient vacant land for further commercial growth. As noted above, if need can be shown, contiguous parcels might be rezoned to allow for growth. In the case of Rural Centers, it is difficult to arrive at meaningful estimates of future needs. Therefore, it is considered more reasonable to draw tight boundaries and make findings of need on a case-by-case basis.

4.5 HOUSING

Table of Contents

- 1. Gross County-wide Housing Needs
 - 1.1 Introduction
 - 1.2 Methodology
 - 1.3 Projection of Estimated Housing Needs to Year 2000
 - 1.3.1 Step 1: Estimation of (Decreasing) Share of Unincorporated Population
 - 1.3.2 Step 2: Deduction for persons in "Group Living" Quarters
 - 1.3.3 Step 3: Projection of household size
 - 1.3.4 Step 4: Adjustment to allow for appropriate vacancy rates
 - 1.3.5 Step 5: Projection of total housing needs to year 2000
 - 1.3.6 Adjusted Housing Needs
 - 1.3.7 Discussion of patterns of tenure
 - 1.3.8 Exogenous Forces
- 2. Housing Needs Overview
 - 2.1 Introduction
 - 2.2 Population Growth and County-wide Gross Housing Needs
 - 2.3 City Plans
 - 2.4 Urban Growth Areas
 - 2.4.1 Housing Goal Requirements in UGA's
 - 2.4.2 Charleston/Barview and Bunker Hill/Libby/Millington Urban Growth Areas: Special County Responsibility
 - 2.4.3 Housing Type
 - 2.4.4 Housing density
- 3. RESERVED

- 4. Rural Housing
 - 4.1 Introduction
 - 4.1.1 Definitions
 - 4.1.2 Statutory Requirements: Relationship of Rural Housing to Restore Management
 - 4.2 RESERVED
 - 4.3 Analysis of "Committedness" of Rural Housing
 - 4.3.1 Introduction
 - 4.3.2 Procedure for Identifying "Committed Areas"
 - 4.3.4 1985 Committed Area Revisions
 - 4.3.5 Discussion: Characteristics of "Committed Areas"
 - 4.3.6 Rural Center Identification Procedure

Appendices: Appendix A - Areas Committed to Rural Residential Use, 1979-1983

<u>Appendix B</u> - Findings of Irrevocable Commitment Based on Factors in OAR 660-04-028(2), for all Committed Areas as of 1984

<u>Appendix C</u> - Findings of Irrevocable Commitment Based on Factors in OAR 660-04-028, for Selected Committed Areas as of 1985

1. Gross County-wide Housing Needs

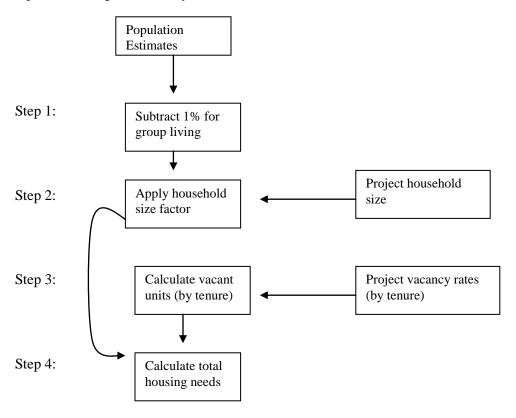
1.1 <u>Introduction</u>

In the comprehensive planning process, findings on demographic trends are generally followed by the determination of housing needs. Housing is the aspect of the plan most strongly affected by factors of demographic change such as age/sex structure and migration. Housing needs must be satisfied through appropriate zoning.

1.2 <u>Methodology</u>

Process for estimating additional housing needs to year 2000

Following population projections, the next logical stage in the planning process can be represented diagrammatically as follows:



This process is based on that followed by the State Department of Commerce (Housing Division) in the report, "housing Market Analysis Situation Report, Coos County, Oregon," (7-1-79). The report's findings are county-wide and it makes no attempt to separate cities from unincorporated areas. However, its basic assumptions and methods can be applied in this analysis with appropriate adjustments where data is not available.

1.3 <u>Projection of Estimated Housing Needs to Year 2000</u>

1.3.1 Step 1: Estimation of (Decreasing) Share of Unincorporated Population

The demographics section of the Plan projects 5-yar increment population figures for the unincorporated County, as shown below, based on the concept that the unincorporated share of population will continue its historic decline based on a linear regression analysis of 1940-1980 trends.

Selected Population Projection and Unincorporated Share

Year	Total County Population	Unincorporated A	Unincorporated Areas		
		Population	Share %		
1985	70,400	27,808	39.5		
1990	76,700	29,530	38.5		
1995	84,200	31,575	37.5		
2000	92,000	33,672	36.6		

1.3.2 Step 2: Deduction for Persons in "Group Living" Quarters

A standard 1% is deducted from the total population at each date for persons living in group quarters (school or college dormitories, temporary workers' quarters, armed service personnel, etc.). This factor is customarily used to estimate this proportion of the population where no more reliable data is readily available.

1.3.3 Step 3: Projection of Household Size

The average (county-wide) household size is used as the factor to convert total population to the number of dwellings required to house that population.

U.S. Census data comparing historical household size county-wide and within the unincorporated areas follows:

1960	-	County-wide	-	3.28 Persons/Household		
		Unincorporated	-	3.42	"	"
1970	-	County-wide	-	3.08	"	"
		County-wide Rural ¹	-	3.13	"	"
1980	-	County-wide	-	2.65	"	"
		Rural ¹³⁵	-	2.71	"	"

¹ Census definition of urban/rural does not coincide with city/unincorporated. unincorporated communities with over 2500 population are included in "urban".

These figures illustrate two important features of household size:

- 1. Household size is declining
- 2. Household size is slightly greater historically in the unincorporated areas.

It may be assumed that household size is declining in unincorporated areas at the same rate as it is county-wide for the same reasons:

- 1. There is a trend toward smaller families
- 2. Greater proportions of households are now single-person households (Housing Division, op. cit. above).

The county-wide decline from 1970 to 1980 was 14%. If that rate of decline were to continue every decade, the result in the year 2000 would be an average household size of less than 2 persons per household. Further analysis, however, suggests that the rate of decline will begin to ease and then level off by the year 2000.

The reason for this lies in the age structure of the population. The last several decades have comprised a rapid rate of new household formation by the "baby boom" generation born after World War II. (See discussion in Inventory Section 4.1, "Demographics", on changes in the age structure of the population.) Any period of more rapid household formation will tend to result in a gradually declining average household size, provided there is not an increase in the birth rate at the same time. Birth rates have been generally declining slowly or remaining static all over the nation since the 1950's. Another factor leading to generally smaller households is the increasing number of single-person households in the population. As the "baby Boom" generation has more children, however, the decreasing trend in household size will slacken. Over time, the influence of this generation's having families will tend to counter the previous trend.

The State Housing Division indicated in a 1979 study that county-wide household size was expected to continue to decline until it reached a minimum level of about 2.55 persons/household, at which point it was expected to level off and remain roughly constant. The most recent (Ed Schaefer, personal conversation 3/27/84) PSU-CPRC estimate puts county-wide household size in the year 2000 at 2.38 persons per household. PSU used Bonneville Power Administration's (BPA) latest projected "headship" rates and applied them to the age/sex structure of the PSU forecasted population for Coos County. The result is slightly lower than the BPA estimate because PSU is county-specific on calculating age/sex net migration, while BPA uses simply a state-wide figure.

Since household size has historically been slightly larger in the unincorporated areas, it is necessary to adjust the county-wide figures. For the sake of consistency, it is assumed that the difference will be the average of 1970 & 1980, or .06 persons per household. Household size in unincorporated areas can therefore be expected to decline to 2.44 persons per household by the year 2000, based on the latest PSU projection of the year 2000 (county-wide persons/household [2.38] plus .06 persons/household).

Results of steps 1, 2, and 3 are shown in Table 1 below.

Table 1: Gross Housing Needs, Unincorporated Coos County, Year 2000

Year	Population projection	Minus 1% for Group Living	Projected Average Household Size	Projected Number of households
2000	33,672	33,335	2.44	13,662

1.3.4 Step 4: Adjustment to allow for appropriate vacancy rates

In any determination of housing needs, a certain additional number will be required to compensate for low vacancy rates. The vacancy rates for housing for sale was 1/4% in 1980. This is an acceptable level to maintain freedom of choice in the housing market. The vacancy rate for rentals in 1980 was 8/7%. Historical vacancy rates are shown in Table 2 below.

Table 2. <u>Historical Vacancy Rates, Coos County, 1960-80</u>

Year	1960	1970	1980
Owner Occupied	1.45%	1.13%	1.4%
Rented	10.0%	7.64%	9.5%

Source: U.S. Census

Based on these figures, projected vacancy rates can be presumed to be an average of the historical rate of 1960-1980 or

Owner/occupied = 1.3% Rental = 9.0%

Vacancy rates in unincorporated areas are presumed to be the same as the county-wide rates.

According to the State Housing Division, an acceptable vacancy rate for rentals is about 5%. A higher rental vacancy rate is required because migrants from other areas most frequently have to rent when moving into the area. If rental vacancies are scarce, hardship results. At any one time, renters are a more mobile group than owner-occupiers, since renters tend to move on to better accommodations or to look for other employment more frequently than owners.

At any time, there is also a miscellaneous category of vacant dwellings which are unavailable for some reason. These might be awaiting demolition, abandoned, or undergoing repair or remodeling. The State Housing Division estimated that 250 dwellings county-wide were vacant and unavailable in 1978 (the figure used in the previous effort toward Plan acknowledgement). That figure represented a considerable reduction over previous years and reflected the tight housing market at that time. The 1980 Census data show a sharp increase back to more traditional levels (1560 county-wide). It is assumed that this miscellaneous category stays at a constant percentage of the total number of households as at 1980 through the planning period, or 2.7%. It is also assumed that a small number of these homes passes out of the housing stock through demolition or dereliction each year. Insufficient data precludes quantifying this portion

with any certainty. By maintaining an adequate housing supply, however, these losses are automatically compensated.

The percentage of homes which are owner-occupied in the unincorporated areas is derived from the 1980 Census and is assumed to remain the same (78.1%). This factor is used to apportion the total number of households by tenure in order to arrive at the estimated number of vacancies.

Results of Step 4 are shown in Table 3 below:

Table 3. Additional Housing Required in Unincorporated Areas to Maintain Standard Vacancy Rates

Assumption: 78.1% of unincorporated housing is owner-ocupied

Year	Total number of households (Table 1)	Projected v rates	racancy	Number of vacant units				
				Owner- occupied	Rental	Nonavailable	Total	
2000	13,662	1.3%	9.0%	139	269	369	777	

1.3.5 Step 5: Projection of Total Unincorporated Housing Needs to Year 2000

The total gross housing needs for unincorporated Coos County are estimated below in Table 4. The estimates are a combination of needs generated by increasing population, decreasing household size and appropriate vacancy rates, as shown in Steps 3 and 4.

Table 4. <u>Projected Housing Needs, Unincorporated Coos County, Year 2000</u>

Year	Occupied Housing Units	Vacant Housing Units	Total Inventory
1980*	9,445	583	10,028
2000	13,662	777	14,439

^{*}U.S. Census data

1.3.6 Adjusting Housing Needs

The gross housing needs projection indicates that <u>a total of 4,411 additional dwellings</u> <u>will be needed between 1980 and 2000</u> to accommodate future population growth and changes in household size and to provide for sufficient vacancies. (14,439 - 10,028 from Table 4)

1.3.7 <u>Discussion of Patterns of Tenure</u>

The total number of households is broken down into owner-occupied and renters on the basis of 1980 proportion (78.1% owner-occupied). This assumes that the 1980 figure will remain constant. It is altogether possible that this may change, however. It can be assumed that very few homes in the unincorporated areas are built specially as rentals. The conspicuous exception to this statement occurs in certain urbanized areas (for

example, outside Coos Bay in the Bunker Hill area where some apartment complexes can be found). Elsewhere, homes tend to pass from owner-occupation to rentals over time, often as the original owners build a new home and retain the other home as a rental. Thus, the plan does not imply by its breakdown by tenure that there is any practical means of ensuring that a certain number of rentals will be provided throughout the county. However, the Plan can be provided (by appropriate zoning, facility provision) for satisfying the need for purpose-built rentals. For the rest of the County, it can be assumed that individual choices and economic forces will dictate the future patterns of tenure.

1.3.8 Exogenous Forces

Demand for housing in Coos County is directly affected by national housing trends. This is so because the local economy is still largely dependent on the lumber and wood products industry for employment. High mortgage interest rates and the uncertainty about their direction in the longer term have severely restricted national housing demand over the past several years. This in turn has meant a slackening of demand for lumber, plywood, and other wood products used by the housing industry, and has resulted in a corresponding prolonged local recession. These same high interest rates have also strengthened the position of the U.S. dollar because of the attractiveness of the rates to foreign investors, who have been pouring money into the U.S. financial markets. The resulting strong U.S. dollar means industries (such as the Coos County timber industry) would wish to export to the international markets are being priced right out of those markets.

Economists normally would label these factors as "exogenous", or being outside or external to the local economy, with the implication that nothing at the local level can affect such factors. In face, while the local area can do little to change national interest rates (other than, say, campaigning for meaningful reductions in the federal budget deficit), the community <u>can</u> enhance its relationship with the national economy through a conscious effort to restructure the local economy. This plan embodies one of the means selected, which is a careful, optimistic effort toward diversifying and expanding local economic activities away from dependence on one or two industries. The population projections and housing need forecasts in this plan have been coordinated with policy choices at the local level about employment structure at the end of the planning period. The projections, which result, are thus <u>not</u> what a disinterested observer might guess would happen if "things just sort of keep going the way they are." Instead, the projections represent the hopes and plans of the local citizenry for a healthy and vigorous economic future.

2. Housing Needs - Overview

2.1 Introduction

The Statewide Housing Goal (#10) requires cities and counties throughout Oregon to "provide for the housing needs of the State." It further requires:

- 1. An inventory of "buildable lands"; that is "lands in <u>urban</u> and <u>urbanizable</u> areas that are suitable, available, and necessary for residential use" (emphasis added).
- 2. Provision of housing at price and rent levels that makes it affordable by local citizens.
- 3. Flexibility and variety in housing location, housing types and residential densities.

The definition of "buildable lands" explicitly places the burden of providing land for housing primarily on the cities, either within their city limits or within appropriate urban growth areas. Coos County's statutory responsibility is twofold:

- 1. To coordinate urban growth area designations to provide for necessary land for housing outside city limits.
- 2. To ensure, through the coordination process, that cities meet their primary responsibility for housing needs.

The County recognizes a need for rural homesites, and had earlier adopted a "Rural Housing Exception" based on many factors, including citizen preferences as modified by a many faceted suitability analysis. Under threat of enforcement action by LCDC - including a widespread moratorium on building permits and a loss to the County of over \$600,000 in revenue - Coos County has now regretfully chosen to fulfill the need for dwelling units only in areas acceptable to LCDC. These areas, as described and documented in subsequent sections, are now limited t identified "committed" lands (as infill development) and to resource lands where dwellings are allowed under very limited circumstances. This approach ensures that Coos County takes on <u>part</u> of the responsibility for housing needs, which involve finding suitable land, providing for affordable housing, and ensuring availability in housing, "location, type and density." This overview documents how the coordinated plans of Coos County and its cities combine to provide for these needs.

Three distinct kinds of areas are recognized, and each fulfills housing needs in different ways:

- 1. Cities
- 2. Urban Growth Areas
- 3. <u>Unincorporated Rural Coos County</u>

The following narrative discusses how each of these areas fulfills housing needs for the entire County.

2.2 <u>Population Growth and County-wide Gross Housing Needs</u>

Section 1.3 relates population growth to overall housing needs. Average household size is found to be declining (Section 1.3.3) and overall vacancy rates exist at normal levels. These factors are introduced into the analysis to arrive at total housing needs. It has been determined that a total of 4,411 dwelling units will be needed to meet housing needs throughout the unincorporated portion of the County (Table 4). Of this amount, 974 d.u. are allocated to the unincorporated areas of Charleston/Barview and Bunker Hill/Millington/Libby and the urban growth areas of Bandon, Coquille, and Myrtle Point (See Section 2.4.3).

2.3 City Plans

The cities in Coos County have each conducted a buildable lands survey and have adopted policies appropriate to comply with Goal #10 requirements. These projections have been fully coordinated with total County population projections (see Urbanization elements and respective city plans), and have been acknowledged by LCDC.

2.4 <u>Urban Growth Areas</u>

2.4.1 Housing Goal Requirements in U.G.A.'s

Coordination is required between city plans and the county plan to ensure that housing needs which cannot be met within city limits can be met in Urban Growth Areas. The County implements a joint plan for the urban growth areas until any part of these becomes annexed.

The primary implementing mechanism used by the County is two "Urban Residential" zones (R-1 and R-2); these zones allow a minimum lot size of 1 acre where no urban level sewer and water services are available. Standard urban lots of 8,000 square feet or 5,000 square feet are permitted upon provision of urban-level sewer and/or water services. One difference between the two zones is that mobile homes are permitted outright in one (R-2), while in the other, special design standards would have to be met. In addition, mobile home parks would be allowed under a conditional use permit in the R-2 zone. The other important feature of the R-2 zone is that it allows Planned Unit Developments.

Specific planning coordination agreements between cities and the County are stated in the respective Urban Growth Management Agreements. Agreements on public facility extension ensure that urban density housing may be provided in a timely manner to meet the needs of cities' growth.

4.2.2 <u>Charleston/Barview & Bunker Hill/Libby/Millington Urban Growth Areas:</u> Special County Responsibility

These areas are urban and urbanizing unincorporated communities which lie immediately to the southwest and southeast, respectively, of the City of Coos Bay City Limits. Since the City of Coos Bay has determined that it has no need for an urban growth area outside its city limits, these communities are treated as separate urbanizing areas which generate their own population and housing growth and which may require separate urban growth areas (see Urbanization

element for thee communities). The previous Plan effort argued that the County has responsibility for Goal #10 requirements that must be met in these communities in the same way as the individual cities address their own needs. Since that time, LCDC has concluded that the County has no such responsibilities.

2.4.3 Determination of Housing Needs for "Urbanized" and "Urbanizing" Areas

Two census districts (Charleston and Bunker Hill) include the two major areas of urbanizing development in the unincorporated county. Other smaller areas include the unincorporated portions of Bandon, Coquille, and Myrtle Point. The previous plan effort allocated a total of 974 dwelling units to the UGA's, as explained more fully in the urbanization elements for the cities and for Charleston/Barview and Bunker Hill/Libby/Millington (Bay Area Urbanization Report). The table below shows the coordinated dwelling unit projections that have been allocated to each area for the year 2000.

Table 5. <u>Allocation of Future Housing Growth to Urban/Urbanizing Areas</u>

Urban Growth Areas	Dwelling Units
Charleston/Barview	445
Bunker Hill/Libby/Millington	278
Coquille	150
Bandon	80
Myrtle Point	21
Total	974

3. RESERVED

4. Rural Housing

4.1 Introduction

4.1.1 Definitions

<u>Rural Housing</u> - All dwellings within unincorporated areas and outside and Urban Growth Boundary (UGB).

<u>Rural Residential</u> - Those dwellings and types of residential land use that are located:

- a. within the unincorporated area of Coos County, and
- b. outside an existing UGB.

<u>Rural Center</u> - A named developed area providing some essential services to the surrounding rural area, containing (at least) a store or other commercial use plus a school, church or grange hall.

4.1.2 <u>Statutory Requirements: Relationship of Rural Housing to Resource</u> Management

The process of planning for future rural housing growth is intimately related to the process of planning for resource management. This relationship stems from both practical and legal considerations.

Most land development and conservation actions arise as a response to pressure for change. The most common types of resource land, agricultural and forest land, have been viewed historically as the raw land base for residential, industrial and commercial development, and therefore, are the types of land most likely to experience the most severe pressures for change. From the practical standpoint, conserving and protecting this raw land base does two things: 1) it ensures the continuance of the agriculture and forestry economic sectors, and 2) it enables the selection of more efficient rural development patterns.

Legal parameters are provided by the Statewide Agricultural Lands and Forest Lands Goals (#3 and #4, respectively) and by LCDC's Administrative Rules. The goals 1) require lands with soils in SCS classes I-IV (and other farmlands) to be preserved and placed in an "exclusive farm use" (EFU) zone, and 2) require the conservation of forest lands for forest uses. Whenever such lands are not conserved and protected, a governing body is required to prove through a goal exception procedure that such lands are either:

- 1. No longer available for resource production because they are either <u>physically developed</u> or built upon or irrevocably committed to urban or rural uses and cannot be reclaimed for forest or farm uses; or
- 2. Needed for non-resource uses.

Coos County has now withdrawn its previously adopted goal exception for category 2 above as applied to rural residential lands, based on a clear indication that LCDC will simply not accept any arguments for a goal exception based on need. Instead, Coos County has adopted a goal exception for "Committed Lands" as defined 1) in general in LCDC Administrative Rule #660-04-028 and 2) in more detail within this inventory document.

4.2 RESERVED

4.3 Analysis of "Committedness" of Rural Housing

4.3.1 Introduction

Although both LCDC Goal #2, "Exceptions", and the LCDC administrative rules for goal exceptions were revised to recognize the special circumstances involving areas that are "physically developed" or "irrevocably committed" to a non-resource use, neither the goal nor the rules define the two terms except to say that their meaning "will depend on the situation..." at the site and at adjacent areas. In a broad sense, the terms can be defined to mean that one or more of the following conditions exists:

- 1. There is actual physical coverage of the land with structures to the point that little open land remains ("physically developed");
- 2. The concentration of dwelling units present is substantial enough to interfere with standard commercial farming and forestry practices ("irrevocably committed");
- 3. The land has already been divided into such small parcel size that the consolidation or assemblage of parcels in sized large enough to permit efficient resource production is no longer possible ("irrevocably committed").

The first step in the process of identifying areas that are "physically developed" and "irrevocably committed" to residential development (hereafter simply referred to as "committed areas") is to select precise practical criteria which define committed areas in terms of the three conditions listed above.

4.3.2 <u>Procedure for Identifying "Committed Areas"</u>

In the County's first effort toward Plan acknowledgement (rejected selectively by LCDC), "Committed Areas" were identified by mapping the existing (1978) pattern of individual tax lots and superimposing the location of existing dwellings as determined by the Coos County Land Use Inventory (1978). This work was done at the scale of 1" = 800 feet, which enabled all tax lots and the location of dwellings to be identified precisely. An initial assumption was made that a 10-acre parcel was the realistic minimum lot size upon which resource production (farming or forestry) could occur. (Although farm and forest uses can and do occur on smaller parcels, the resource use tends to be sporadic and indistinguishable from the use of the property as residential.) Thus, parcels that were generally less than 10 acres in size were equated with being lost to resource production and were therefore considered available for rural housing (see "Agricultural Lands" and "Forest Lands" chapter for rationale). Based on this guiding assumption, the following criteria were used to delineate the boundaries of potential "committed areas".

- 1. Generally, potentially "committed areas" consist of parcels less than 10 acres.
- 2. However, developed parcels of 10-20 acres were included if they bordered on at least two sides smaller developed parcels.
- 3. Undeveloped parcels of 10-20 acres were included only if they bordered on at least three sides smaller developed parcels.
- 4. In general, the amount of vacant land within a potential "committed area" averages about 25% of the total area. Vacant land substantially exceeds 255 only where there is a developed, legally established subdivision in which many lots remain unimproved. According to State law (ORS 92.205-245), the sale of a single lot is a sufficient criterium to consider the subdivision developed. Therefore, it is de facto a "committed area".

The rationale for including larger lots in committed areas, even when undeveloped, was that such are highly impractical to use for resource production due to close proximity to residential areas

As an additional check on the validity of each potential "committed area," data was developed for the following factors:

- 1. Gross residential density,
- 2. Percentage of coverage by residential uses.

The data was obtained as follows:

- 1. <u>Gross Residential Density.</u> This was calculated for each potential "committed area" by dividing the area's total acreage by the number of dwelling units (A/DU).
- 2. <u>Percentage of Residential Coverage.</u> This is the inverse of the gross density and was figured by dividing the number of dwelling units in the study area by the area's total acreage, and then multiplying the result by 100%. The resulting figure gives an indication of the actual physical coverage of land, assuming that each dwelling unit and accessory uses occupy one acre.

If the gross residential density was greater than one dwelling t every 10 acres, or if the percentage of residential coverage was greater than 10%, an area qualified as a "committed use" See "Spatial Characteristic Matrix" below

Table 10. Spatial Characteristics Matrix

Gross Residential	% of Residential Coverage	Level of Commitment	Exception Required
Density (Acres/DU)	(du/ac x 100%)	to Residential Use	
<1.9	50-100%	"Physically Developed	Committed
2.0-9.9	10-49%	Irrevocably Committed	Committed
>10.0	0-9%	Available for resource	
		production	Full Findings

Other Criteria

In order to identify these "committed areas", certain additional characteristics and patterns were also considered. They are as follows:

- 1. <u>Types and availability of public services.</u> If public water or sewer are available, the area is likely losing (or has lost) its resource related character and is a prime candidate for inclusion as a "committed area".
- 2. <u>Clustering patterns.</u> If the study area includes small existing subdivisions as well as a number of parcels each larger than 10 acres so that the <u>average</u> parcel size is

- less than 10 acres, the clustered areas are separated out where practicable to avoid artificially large delineation of non-resource use commitment.
- 3. <u>Existing farm/forest practices</u>. If an area of parcels generally less than a 10-acre average size is nevertheless engaged in grazing or <u>specialty crop production</u> (such as cranberries or Christmas tree farming), the land is in fact available for resource production. The use of air photography and the Land Use Inventory enables the identification of certain exceptional areas where resource management is occurring on a small scale.

It was then possible to identify "committed areas" based on the tests outlined above.

4.3.3 <u>Additional Committed Areas (1984)</u>

Following LCDC's rejection of portions of the County's original rural housing goal exception, the Planning Commission relaxed its definition and criteria for defining committed areas so as to follow more closely the guidance given by LCDC staff. At the same time, however, the Planning Commission also made new detailed findings for <u>all</u> committed areas (using revised study-area boundaries) based on the factors required by OAR 660-04-028(2). Findings and conclusions based on these factors are included as Appendix D of this inventory.

The results are summarized below:

Acres	1984 Changes
16,911	Original committed area total from adopted plan
+3,339	Full exception acreage (from original exception) changed at DLCD suggestion to committed status
+726	Resource land reviewed at DLCD suggestion and subsequently changed to committed status ²
+574	Subdivisions added to committed status
+618	Full exception acreage (from original exception) to committed status in response to citizen requests
-89	Cranberry bogs deleted from committed area status
22,082	Total committed areas as revised

4.3.4 1985 Committed Area Revisions

Following LCDC's selective rejection of Coos County's second attempt at acknowledgement, the County again reevaluated certain areas to determine their "committedness". Areas reviewed included not only parcels that had previously been determined to be committed, but also parcels that had earlier been justified through adoption of a goal exception based on need. (As explained in Section 2.1, the County has withdrawn that goal exception at LCDC's insistence.) Additionally, in accordance with Goal #1, "Citizen Involvement", the County reviewed written requests for designation of specific parcels as committed.

² The Planning Commission rejected the 1292 additional acres suggested by DLCD as possibly available for commitment because the areas remain suitable for resource production.

To provide the basis for an acceptable goal exception for land physically or irrevocably committed to other uses, the County developed an analysis matrix incorporating relevant factors and criteria from LCDC Administrative Rule #660-04-028. The completed matrices, which include conclusions of committedness for qualifying parcels, are attached as Appendix C. In accordance with an understanding with DLCD staff, the matrices display only those earlier rejected parcels that have been determined to qualify as committed areas. Other areas formerly designated as "Rural Residential" are now designated in accordance with the most appropriate resource designation, generally "Agriculture" or "Forest".

NOTE: The County's 1984 committed area findings [Appendix B], which were part of the County's second attempt at plan acknowledgement, were applied to large groupings of individual parcels. LCDC's rejection and Coos County's latest (1985) response are parcel-specific. Therefore, the "1984" committed area findings apply only to those parcels that "survived" the 1984 rejection, and where there are questions or conflicts, the "1985" committed area findings take precedence over the "1984" findings.

4.3.5 Discussion: Characteristics of "Committed Areas"

This category encompasses a variety of differing residential land uses in rural areas, including scattered subdivisions, linear development along roads, small areas of clustered residences and expansive suburban neighborhoods. Some "committed areas" have official place names and possess commercial uses and other community facilities like schools, churches, or water systems. These communities function as a focus of activity in the surrounding area and are identified below as "Rural Centers". Other places retain their historic place names, but no longer possess the commercial uses and community facilities. Many of these places (like Randolph or Prosper in the Coquille Valley) were historically important communities, but have declined. In many cases, sufficiently dense residential area remains, so these places are considered as "committed areas", though they can no longer be identified as "rural centers".

In certain parts of the County, notably along the coast, north and south of Bandon and around the Tenmile Lakes, a number of predominantly retirement or recreational developments have occurred. Many such areas are formally recorded and approved subdivisions (e.g., Pacific Riviera, north of Bandon). Other area function essentially as suburban bedroom communities to the cities. Examples are Isthmus Heights near Eastside and the Rink Creek and Shelley Road areas near Coquille. Most other "committed areas" which do not fit the above characterizations are simply the result of gradual partition locations all over the County. In a few cases (e.g., Daniels Creek and Beaver Creek), some agricultural bottom-lands have been divided into small parcels. However, in most other cases forest lands have been divided.

4.3.6 Rural Center Identification Procedure

Rural Centers are theoretically goal conforming because they are at least "substantially committed" to non-resource uses. A definition of rural centers and criteria for their identification are set out below:

A rural community is characterized as an area where a concentration of small homesites has occurred around a recognizable central place which provides certain essential services. A rural community is defined as containing at a minimum a school, church or grange hall, plus at least one of the following facilities or services: grocery store, automobile service station, community water system, community sewer system. Rural

communities are intended to provide for the continuance of a rural-residential life-style in the County.

Existing unincorporated rural communities are intended for the continuation of growth with appropriate density residential dwellings and related subordinate commercial establishments that provide daily convenience goods and services to the surrounding rural area.

This definition provides for a two-part test before rural communities can be designated. Not only should certain facilities and services be present to serve the surrounding community, but there should be a recognizable concentration of development or "node". The intention is to encourage development where a named center has historically existed and where services exist and can be provided more economically and efficiently in the future.

Named historic population centers are cited in Table 23 which assesses their suitability for designation as rural centers based on the current provision of facilities and services.

Based on the criteria listed above, the following communities are identified as Rural Centers:

Allegany, Arago, Bridge, Broadbent, Cooston, Dora, Fairview, Glasgow, Greenacres, Hauser, and Sumner.

In addition, the following communities are proposed for inclusion as Rural Centers even though they technically do not qualify:

- 1. <u>Laurel Grove/Fourmile</u>: Because a church and a grange hall are nearby that would enable technical qualification, and because of its extensive linear tourist-commercial development along a major corridor (U.S. 101);
- 2. <u>Riverton</u>: Because it has a community water system, it has experienced small scale industrial development and is located beside the rural highway connecting Bandon and Coquille (State Hwy. 42S).

The communities that meet the requirements for rural centers have a wide range of physical characteristics. Some are densely clustered on a small scale (such as Arago or Riverton) or on a larger scale (such as Greenacres or Glasgow); some are essentially linear where the central area is simply a crossroads with little development concentration (such as Allegany or Fairview). Other areas exhibit some clustered development at a recognizable center that serves as a social and commercial focus for much larger population that is extensively linear with occasional clustering (such as Bridge).

The physical boundaries of Rural Centers can be delineated in two ways:

- 1. The area encompassed by the commercial service core and all contiguous land which is physically developed or substantially committed to rural residential uses, or
- 2. Only the commercial/service core area, plus contiguous high-density residential areas (lots predominantly 2 acres or smaller).

The more "restricted" definition of Rural Centers is intended to confine future service or commercial development to a locality which is already substantially committed to those uses. The "broader" definition would provide for service and commercial uses throughout the adjacent rural residential area.

Potential Rural Communities; Facilities and Services Checklist³ Table 12

Community	Service									
Community	School	Church	Store	Station	Grange	Water	Sewer	RFPD		
Allegany	*	*	*	Station	orung c	***************************************	20,,,01	10.12		
Arago	*	*	*	w/				*		
C				store						
Bridge	*	*	*	*	*	*		*		
Broadbent	*	*	*	*	*					
Coaledo										
Cooston		*	*					*		
Dellwood	*									
Dora	*	*	*	w/	*	*		*		
				store						
Fairview	*	*	*	*	*			*		
Gaylord										
Shorewood/Glasgow	*		*			*		*		
Gravelford										
Greenacres	*	*	*	*	*			*		
Hauser	*	*	*	*				*		
McKinley		*			*					
Norway										
Prosper										
Randolph								*		
Remote			*					*		
Riverton		*				*		*		
Saunders Lake			*	w/store				*		
Sitkum										
Sumner	*	*	*	w/store	*	*		*		
Laurel Grove Fourmile			*	*				*		

³ Coos County Land Use Inventory (1978)

APPENDIX A

AREAS COMMITTED TO RURAL RESIDENTIAL USE

North Bayside Co	unty Census D	ivision							
Area	Location (Township, Range, Sections)	Total Area (Acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel Size (ac) •	Percent Coverage (%)	Vacant Land (ac)	Potentially available Land (ac)	Comments
Shorewood	24.13.27,28, 34,35	80	55	1.4	1.2	68.7	13		
Larson Slough	24.13.25	35	.4	8.7	6.8	11.4	8	11	
Sunny Hill	24.13.13,14, 23,24	672	209	3.2	2.5	31.1	155		
Templeton Ridge	24.13.13	193	.30	6.4	5.4	15.5	30	12	
North Slough	24.13.14,15	46	.33	1.4	1.2	71.7	7		
North Slough Road	24.13.12	35	.11	3.2	3.2	31.4			
Hauser/Saunders Lake	23.13.35 24.13.1,2,11	573	.443	1.3	1.0	129.3	137		Rural Center
Wildwood Drive	23.13.26,35	103	.32	3.2	2.7	31.1	16		
Dunesview Acres	23.13.24	45	.28	1.6	1.2	62.2	12		
Tenmile Creek	23.13.13	45	.79	0.5	0.4	175	45		
Sunny Cove	23.12.17	58	.16	8.6	2.0	27.5	26		
Road's End	23.12.8,17	13	14	0.9	0.71	10.8	3		
Lindross Arm	23.12.9,16	70	27	2.6	1.1	38.6	40		
Black's Arm	23.12.5	60	.6	10	5.8	10.0	25		
Black Creek Park	23.12.5	12	.8	1.5	0.6	66.6	7		
North Lake	23.12.4,9	20	.7	2.8	0.7	35	15		

[•] Includes vacant land
• Excludes vacant land

Area	Location	Total	Dwelling	Gross	Average	Percent	Vacant	Potentially	Comments
Alca	(Township,	Area	Units	Density	Developed	Coverage	Land (ac)	Available	Comments
	Range,	(acres)	(D.U.)	(Acres/D.U.)	Parcel size	(%)	Land (ac)	Land (ac)	
	Sections)	(acres)	(D.U.)	•	(ac) *	(70)		Land (ac)	
	Beetions)				(ac)				
North Lake 1	23.12.4	30	.6	5.0	2.3	20	16		
North Lake 2	23.12.3,10	9	.6	1.5	1.3	66	1		
Coleman Arm	23.12.22	85	.48	1.8	0.8	56.4	25		
Palouse Slough	24.12.18	13	.4	3.2	3.2	30.7			
Haynes Way	24.12.17,18	54	.13	4.1	3.1	24.1	13		
Upper North									
Slough	24.12.5,7	215	.25	8.6	5.8	11.6	71		
Majestic Shores	23.12.20,29	89	17	5.2	1.2	19.1	68		
Sutters Arm	23.12.19,20	94	32	2.9	2.1	34	25		
Lakeshore Acres	23.12.20,21	167	34	4.9	0.8	20.3	140		
Sunlake Park	23.12.16	100	45	2.2	0.4	45.0	80		
Mettman Creek	25.12.6	165	26	6.3	4.1	5.7	58	15	
Kentuck School	25.12.6	45	9	5.0	3.7	20	12		
Kentuck Creek	25.12.7	15	7	2.1	2.0	46.6	1		
	24.13.35								Rural
Glasgow #1	25.13.2	212	224	0.9	0.7	105.6	58		Center
	25.13.1,2,								Rural
Glasgow #2	11,12	161	43	3.7	2.3	26.7	60		Center
Haynes Inlet	24.13.35,26	167	75	2.2	2.1	44.9	13	12	
Totals .31		3681	1616	2.3	1.57	43.6	1147	50	

[•] Includes vacant land
• Excludes vacant land

Eastside - County	Census Divisio	on							
Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) *	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
Timber Park	25.12.29,30	140	49	2.9	1.7	35	55		
Cooston (S)	25.12.19	46	11	4.2	3.8	23.9	4		
Carlson Heights	25.12.7 25.13.12	122	21	5.8	2.5	17.2	69		
Eastshore	25.13.12	22	11	2	0.6	50	15		D 1
Cooston #1	25.13.13	42	26	1.6	1.3	61.9	7		Rural Center
Cooston #2	25.13.13	48	16	3.0	2.3	33.3	12		Rural Center
Cooston #3	25.13.13,24	155	61	2.5	1.6	39.3	60		Rural Center
Isthmus Hts (S)	26.13.1,12, 13,24	1024	368	3.8	2.7	26.2	309	58	
Isthmus Hts (N)	26.12.6 25.12.31 15.13.36	350	93	3.6	2.0	27.4	160	5	
Fruitland	26.13.1 26.12.6,7	152	25	6.1	4.4	16.4	43		
Sumner Road	26.12.7,17, 16,18,19,20	548	74	7.4	6.1	13.5	99	63	
Wriston Spring	26.12.29,30	123	22	5.6	4.0	17.9	36		
Sun Way	26.12.20,21, 28,29	260	38	6.8	4.4	14.6	91	19	

[•] Includes vacant land
• Excludes vacant land

Eastside - County	Census Divisio	on (Continu	ied)						
Area	Location (Township, Range,	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
	Sections)			•	(ac) *				
G	26 12 20	4.1	10	2.2	1.7	16.2			D 1
Sumner	26.12.29	41	19	2.2	1.7	46.3	9		Rural Center
Sumner/									
Fairview Rd.	26.12.33	41.5	7	5.9	4.9	16.9	7		
Upper East Fork	24.11.25,26,								
Millicoma	36	81	25	3.2	2.6	30.8	17	15	
Lower East Fork	24.11.33		1						
Millicoma	25.11.04	50	15	3.3	2.6	30.0	10		
Lower West	24 11 21	4.4	1.4	2.1	2.4	21.0	10		
Fork Millicoma	24.11.31	44	14	3.1	2.4	31.8	10		
Upper Kentuck Creek	24.12.34	68	10	3.8	4.2	14.7	26	8	
	25.11.18	60	20	3.0	2.3	33.3	14	0	
Allegany Rd. Allegany #1	25.11.16	35	10	3.5	2.7	28.5	8		
		40		5.0	3.8	20.0	10		D1
Allegany #2	25.11.05		8			20.0	10		Rural Center
Allegany #3	25.11.4,5	25	10	2.5	2.4	4.0	1		
Upper West									
Fork Millicoma	24.11.19	100	12	8.3	6.0	12.0	28	20	
#1 Daniels Ck.	25.12.35	23	6	2.8	2	26.1	5		
#2 Daniels Ck.	25.12.35	30	4	7.5	7.1	13.3	2	9	
Coos River	25.12.26,27,								
School	34	212	29	7.3	5.9	13.7	40	55	

[•] Includes vacant land
• Excludes vacant land

Eastside - County	Census Divisio	on (Continu	ied)						
Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) •	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
#4 Daniels Ck.	26.12.10	90	11	8.1	7.2	12.2	10	6	
Upper Coos R#1	25.11.31	12	5	1.4	1.4	41.6			
Upper Coos R#2	25.11.28	30	6	5.0	5.0	16.6			
Stock Slough	26.12.5,8	23.5	11	2.1	2.1	46.8			
Upper Stock Sl.	26.12.4,9	82.5	12	6.9	5.8	14.5	13	12	
Coos River #1	25.12.31	62	16	3.9	3.7	25.8	3	8	
Coos River #2	25.12.29,32	5.5	13	0.4	0.4	236			
Upper #1 Laverne Park	26.11.28,29	36	8	4.5	3.5	22.2	8		
Upper #2 Laverne Park	26.11.29	15	3	5.0	4.0	33.3	3		
Lower Laverne Park	27.11.7,18	114	28	4.1	2.6	24.5	40	6	
Four Corners									Rural
(Fairview)	27.12.24	309	40	7.7	6.1	12.9	66	51	Center
Catching Sl. (N)	26.12.06	6.5	4	1.6	1.6	61.5			
Daniels Ck. #3	26.12.03	23	4	5.8	5.0	17.4	3		
Ross Ranch	26.12.08	7	2	3.5	2.5	28.6	2		
Morgan Creek	26.12.02	13.5	3	4.5	4.5	22.2			
Sumner/Coq.Rd	26.12.32	6	2	3.0	3.0	33.3			
TOTALS		4,718	1,079	4.37	3.17	22.9	1295	321	

[•] Includes vacant land
• Excludes vacant land

Charleston - Cour	nty Census Divi	sion							
Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) *	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
Lighthouse Way	26.14.4,9	55	35	1.6	1.0	63.6	20		
Cape Arago Highway	26.14.03	112	30	3.7	3.0	26.8	23	5	
Charleston									
Highway Tract	26.14.10,11	127	64	1.9	1.7	50.4	17	19	
Crown Point	26.14.14,13	158	27	5.9	4.2	17.1	44	35	
Joy Ney Rd.	26.14.01,12	46	35	1.3	1.0	76.1	10		
Old Bandon Rd.	26.14.23	20	4	5.0	3.0	20	8		
Ridge Road #1	26.14.15,22	52	11	4.7	3.5	21	13	5	
Ridge Road #2	26.14.26	11	6	1.8	1.8	54.5			
TOTALS		581	212	2.7	2.1	36.5	125	64	

[•] Includes vacant land

^{*} Excludes vacant land

Area	Location	Total	Dwelling	Gross	Average	Percent	Vacant	Potentially	Comments
	(Township,	Area	Units	Density	Developed	Coverage	Land (ac)	Available	
	Range,	(acres)	(D.U.)	(Acres/D.U.)	Parcel size	(%)		Land (ac)	
	Sections)			•	(ac) *				
		•	•	•		•	•	•	•
Southport	26.13.22,23,								
_	26,27	103	14	7.3	5.7	13.6	23		
Shinglehouse									
(S)	26.13.14	52	15	3.5	2.8	28.8	10		
Shinglehouse	26.13.3,10,								
(N)	11	220	114	1.9	1.6	51.8	41		
TOTALS		375	143	2.6	2.1	38.5	74		

^{*} Excludes vacant land

Coquille - County	Census Division	on							
Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) •	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
	T		1				1	1	T
Beaver Creek	27.12.14,15	289	29	9.96	7.0	10.03	85		
Coaledo	27.12.15	50	15	3.33	3.26	30	1.1		
Chrome	27.12.21	60	22	2.72	2.3	36.6	9	32	
Leneve	27.12.19,20, 29,30	175	28	6.25	5.3	16	26	7	
Riverton	28.13.08	38	41	0.9	0.67	107.9	10.5		Rural Center
Highway 42S	27.12.33	64.4	13	4.9	2.5	20.2	31.5		
Glen Aiken #1	28.12.18	330	57	5.79	4.7	17.2	6.1	63	
Glen Aiken #2	28.12.19	75	13	5.76	4.7	17.3	13.5	10	
Fairview Rt.	27.12.25,26, 34,35	188	24	7.8	7.4	12.8	11.2	18	
Rink Creek	28.12.7,8	320	92	3.48	3.1	28.7	32	74	
Shelley Rd/ Crest Acres	27.12.32 28.12.5	280	93	3.0	1.8	33.2	112.6	14.5	
Garden Valley Rd.	27.12.22,27	232	36	6.44	4.9	15.5	54	6	
Overland Rd. #2	27.12.10	41	13	3.2	3.2	31.7			
Greenacres	26.13.36	11	15	5.2	3.2	51.7			
Greenacies	27.13.1,2,11	594	148	4.0	3.1	24.9	118		
Golf Course	26.13.23	35	7	5	5.1	20		10	
Overland #1	27.12.10	38.5	9	4.3	3.0	23.4	11.7		

[•] Includes vacant land
• Excludes vacant land

Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) *	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
D 1 (0)	27 12 2 2 10	1.00	T 22	150	T 4.0	10.0	1 22 0	111	1
Delmar (S)	27.12.2,3,10	166	33	5.0	4.0	19.9	33.9	11.4	
Delmar (N)	26.13.34	62.5	14	4.46	2.9	22.4	10.5		
Agate Beach	27.14.05	20	7	2.86	2.86	35			
Seven Devils Rd	27.14.17,20, 21	95	10	9.5	5.4	10.5	41	10	
Sweely	27.14.20,28,								
Subdivision	29	13	3	4.3	4.0	23.1	1		
Pacific Riviera	27.14.33								
#3	28.14.4	183	38	4.8	3.4	20.7	52		
Cut Creek	27.14.33	18	3	6.3	4.7	16.6	4.2		
Pacific Riviera #1 & #2	27.14.33 28.14.04	190	40	4.75	4.25	21.1	19.7	8	
Meadohill									
Ranchettes	27.14.34	74	8	9.4	5.6	10.6	30		
Randolph	28.14.3,9	40	12	3.3	3.3	30			
Hwy 42 (W)	27.12.34,35	35	10	3.5	2.0	28	15		
Coquille (W)	27.12.35	12	4	3.0	2.25	33.3	3		
Coquille River	28.13.01	12	8	1.5	1.3	66.7	1		
Cold Creek	27.12.28,29	48	5	9.6	7.8	10.4	9	5	
County Home	27.12.20,29	13	3	4.3	4.0	23.1	1		

[•] Includes vacant land

^{*} Excludes vacant land

Areas added foll	lowing LCDC Re	eview & Sh	rinkage of Co	oquille's UGA					
Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) *	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
Coquille NW	27.13.36b	26	5	5.2	5.0	19.2			
Coquille N	27.13.36AD	10.9	8	1.4	1.4	73.4			
Coquille NE	27-13-31	41.6	12	3.5	2.7	28.8	8.9		
Rink Creek (additional)	28.12.07AA 28.12.6BB, CC	35	16	2.2	1.8	45.7	6.1		
TOTALS		3962.5	890	4.5	3.6	28.0	785.5	281	

^{*} Excludes vacant land

Bandon - County	Census Divisio	n							
Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) •	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
Wheeler									
Subdivision	28.14.20,29	26.5	11	2.4	2.3	41.5	1.1		
Bandon East	28.14.20,29	175	58	3	2.9	33.1	6.5		
Winterville	28.14.21,28, 29	180	66	2.72	2.2	36.6	37.4	9.6	
Bandon SE	28.14.29,31, 32	336	63	5.3	2.2	18.7	196	14	
Bills Ck. Rd	28.14.32	59	6	99.8	4.3	10.2	32.8		
Morrison Rd.	28.14.34	22	4	5.5	5.5	18.2			
Tom Smith Road #1	28.14.16,21, 22	58.3	9	6.5	5.1	15.4	12		
Tom Smith Road #2	28.14.15	58	7	8.3	8.3	12.1			
Parkersburg	29.14.15	30	4	7.5	7.5	13.3			
Chandler Rd.	29.14.06	44	8	5.5	4.1	18.2	11		
Hwy 101 S #1	29.14.06	20	6	3.3	3.3	30			
Rosa Rd. #1	29.14.05	111	15	7.4	6.2	13.5	17	29	
Boak Rd.	29.15.13	22.7	7	3.2	2.6	38.0	5		
Frank Wanous									
Plat	29.14.7,8	25.4	4	6.35	5.8	15.7	10		
Hwy 101 S #2	29.15.1,12 29.14.07	98.3	31	3.2	3.2	31.5			

[•] Includes vacant land
• Excludes vacant land

Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) •	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
	·	1	•	•		•	1		-1
Beach Junction	29.14.18								
	19.15.12,13	83.5	59	1.4	1.0	70.6	21.6		
Twomile Road	29.14.17,18	79.6	28	2.84	2.8	35.2	1.5		
Dew Valley #1	29.14.19	67	13	5.15	3.7	19.4	18.9	15	
Dew Valley #2	29.14.30	2.8	4	0.7	0.3	142.8	1.4		
Laurel Grove									Rural
(E)	29.14.30,31	181	19	9.5	7.0	10.5	48	19	Center
Laurel Grove	29.15.25,36								Rural
(W)	30.15.01	486	92	5.3	4.5	18.9	68.4	93	Center
Fourmile	30.15.01	17.8	4	4.4	3.1	22.5	5.4		
Prosper	28.14.16	41	18	2.3	1.8	43.9	9		
Prosper Road	28.14.17,20	135	40	3.4	2.4	29.6	39	11	
Wheeler	28.14.17,19,								
Subdivision (N)	20	20	15	1.3	1.3	75			
Croft Lake	30.15.10,11	40	12	3.3	2.8	30	7		
Sub-totals		2421	603	4.1	3.1	24.9	549	190.6	

[•] Includes vacant land

^{*} Excludes vacant land

Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) •	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
Bandon Golf									
Course	29.15.01	118.1	14	8.5	4.5	11.8	18.8	5.8	
Bennett's Plat	28.15.36	198	52	3.8	1.1	26.3	140		
Gutbucket City	28.14.31	138	31	4.5	2.8	22.5	15**		**40 ac. are Industrial
TOTALS		2875.4	700	4.1	3.1	24.3	722.8	196.4	

^{*} Excludes vacant land

Area	Location	Total	Dwelling	Gross	Average	Percent	Vacant	Potentially	Comments
Aica	(Township,	Area	Units	Density	Developed	Coverage	Land (ac)	Available	Comments
	Range,	(acres)	(D.U.)	(Acres/D.U.)	Parcel size	(%)	Eand (ac)	Land (ac)	
	Sections)	(deres)	(B.c.)	•	(ac) •	(70)		Darie (de)	
Westside Rd. #3	29.12.31	24.5	4	6.1	4.2	16.3	7.9		
Broadbent	29.12.32,33	83	37	2.2	1.5	44.6	28.5	11.9	Rural Center
Warner Creek	29.12.28,33	19.5	7	2.8	2.4	35.8	2.5		
Gaylord	30.12.23,26	75	9	8.5	4.7	12	33	9	
Arago	28.13.22,26	91	38	2.4	2.1	41.6	12	42.2	Rural Center
Arago North	28.13.25,36	22.3	5	4.66	4.66	21.4		8.4	
Elks Golf									
Course	28.12.29	137	22	6.22	3.3	16	65	10	
Norway	28.12.29	35	8	4.4	2.9	22.8	3.5	8	
Myrtle Point (N)	29.12.4,9	100	16	6.25	5.7	16.0	9.5	11	
Cooper Bridge	29.12.10	42	7	6.0	4.7	16.6	9		
Pleasant Valley	29.12.07	105	12	8.75	5.9	11.4	33.9	20	
Fourbit Gulch	29.12.07	39	7	5.6	5.2	17.9	2.3		
Arago Route	29.12.8,5	27	13	2.1	1.9	48	2.0	3.0	
Stringtown Rd.	29.12.17,18	87.5	19	4.6	3.8	21.7	15.2	19	
Westside Rd #1	29.12.21,28	11	7	1.57	1.57	63.5			
Westside Rd.#2	29.12.31,32	15.2	5	3.0	3.0	32.9		6.36	
Bridge	29.11.28,33	159	66	2.4	2.1	41.5	32		Rural
									Center

[•] Includes vacant land
• Excludes vacant land

Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac)	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
Middle Fork	29.11.35,36	667	12	5.6	3.8	17.9	14.8	21.9	
Dora	27.11.12,13	52.3	17	3.1	2.1	32.5	17		Rural Center
McKinley	28.11.3,4	32	8	4	4	25		9	
Llewellyn Ck.	29.12.03	9	3	3.0	3.0	33.3			
Myrtle Point/									
Sitkum Road	29.12.04	18	3	6.0	3.0	16.7			
Big Bend	29.12.03	10	2	5.0	5.0	20.0			
River Forks	29.12.22,27	19	3	6.3	6.0	15.8	3		
TOTALS		1280	330	3.9	3.0	25.8	290.6	180	

[•] Includes vacant land
• Excludes vacant land

Powers - County	y Census Divisio	n							
Area	Location (Township, Range, Sections)	Total Area (acres)	Dwelling Units (D.U.)	Gross Density (Acres/D.U.)	Average Developed Parcel size (ac) •	Percent Coverage (%)	Vacant Land (ac)	Potentially Available Land (ac)	Comments
Powers Hwy	31.12.12	8.7	5	1.7	1.7	57.4			
1 0 11 0 12 12 11 11 1	01112112								
TOTALS		8.7	5	1.7	1.7	57.4			

^{*} Excludes vacant land

APPENDIX B

Built or Committed Lands Worksheets

1. DESCRIPTION OF AREA

A., Description Township 23, Range 12, 5.03,04,10

Study Area A-I

C. Acres 156 acres

Existing Adjacent Uses 1 (2(4)

Generally Undeveloped

COMMENTS

OMBLETS

Area consists of Scarcal arms along ten mile bakes which have been divided and developed. The adjacent Surranding arms are generally form and/or snorth lands which constitute had firther inland from the lake edge. Most development is at the bake's edge with a few developed subdivisions bring the exception

CONCLUSION

Do.existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

ONO STATE

Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard?

X YES

OTHER RELEVANT FACTORS CONTRIBUTING TO CONKITMENT

1. Encirclement

Ø YE6

is the subject area generally murrounder on J or more mides by:

other "built or committed areas", or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

The developed orens on the lake are segmented freem adjusces forcut lands by the existing terrain. Buildable or presently. built upon parcels occur most distinctively abotting the la Future inland development is imprestical due to the steep hillsides present as well as dense ferrets lands,

CONCLUSION

Is the area generally "encircled"?

Ø YES

□ио

Do general neighborhood and characteristics contribute to conclusion that the area is "committed"?

. g. Skiene

KH E. (2) and Services . □ 5-10 acres. Is public water generally available to the subject area? D YES □ 10-20 acres Control of Co OH ED Dmore than 20 acres Is public sever generally available to the subject area? D YER The parcel size and ownership pattern of the adjacent surrounding area is predominantly: □10-20 acres Is the subject area within a fire protection district? DYES 20-40 acres S NO Emore than 40 ecres COMMENTS COMMENTS Adjacent timber properties inland from the committed areas one generally owned and prevatly managed as commercial timber preducing areas. CONCLUSION CONCLUSION Do available public facilities conclusion that the area is "co Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclus-that the area is 'committed'? DYES ... **⊠**#0 . D YES Parcel Size and Ownership Patterns The parcel size and ownership pattern of the subject area is predominately: □ NO Dwelling Unit Density The existing dwelling unit density of the subject area is predominantly: Y⊠less than 5 acres The second secon AND THE PERSON OF THE PERSON O BUILT OR COMMITTED LANDS WORK-SHEET DESCRIPTION OF AREA And D1 du per 10 acres or more Study Area . A-2 COMMENTS The parcel size and the ownership patterns of the subject C. Acreage INFORMATION BASE area contribute to concluding that the area is committed A. . Existing Adjacent Dass However, the adjacent properties which are forest lands do Generally Developed; or Generally Undeveloped Area consists of Several CONCLUSION generally form and/or forest lands which inland from the labor edges Nest divelop M YES CONCLUSION □ NO existing adjacent uses make uses allowed by LCDC practicable? DETTHATE CONCLUSION 1 M BYES Based upon a careful consideration of the information outlined above, it is concluded that the subject , □ ×o evocably committed to an extent that satisfies standards of OAR 660-D4-D25. Is the area physically developed or bull it satisfies the DAR 660-04-025 standard Ø YES 横上沙梯车

THE PERSON NAMED OF THE PE

BELL BURNEY

"natural houndaries or other, buffers separation the

lake are separated from adjacent

В но

Ø NO

COMMENTS

CONCLUSION

Is the area generally "encircled"?

₩YES

Heichborhord and Regional Characteristics

forest lands by the existing terrain. Buildable or presently

built upon percels occur most distinctively abotting the lake, Future inland development is impractical due to the steep

CONCLUSION -

DYES

Øĸo

Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the subject area is precominately:

the state of the s

B\$-10 seres

10-20 acres

pore than 20 acres

The parcel size and ownership pattern of the adjacent surrounding area is predominantly:

U10-20 scres : □20-40 scres : %% @mbre than 40 scres

COMMENTS

core generally owned and presently m timber producing areas. .

once contribute to i concluding that However, the adjacent properties which are forest Tanks do hat,

P YES

. D NO

DETINATE CONCLUSION

☐ Irrevokebly committed to an extention the standards of OAR 560-04-025.3
☐ Physically developed or built upon that satisfies the standards of Oith

MANAGE REAL PROPERTY OF THE PR

BUILT OR CONHITTED LANDS WORK-BREET

DESCRIPTION OF AREA

THE REAL PROPERTY.

- A. Description Tourship 23, Range 12, Section 17, 20, 21
- 1. Study Area A-3
- C. Acrese 190 acres A. Existing Adjacent Uses -
 - S Generally Developed; or Generally Undeveloped

COMMENTS

Area consists of Sourcel arms along Ten Mile Lokes which have been divided and developed. The adjacent surrounding area are generally form and/or forest lands which constitute land further inland from the lakes edge. Nost development is at the Lake's edge with a few developed subdivisions being the exception

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

PARS Is the area physically developed or built upon to the extentithat it satisfies the DAR 660-04-025 standard?

7 DO YES

□ NO

includes all uses in the

OTHER RELEVANT PACTORS CONTRIBUTING TO CONNITMENT

1. Encirclement.

₩ YES DNO

- Electronic and the second of
Is the subject area generally murrounded on 3 or more mides by:

other "built or committed areas", or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

THE MEN STORY

COMMENTS

The developed oreas on the lake are experiented from adjacan forest lands by the existing termin. Buildable or presently built upon percels occur mest distinctively abotting the lo-Future inland development is impractical due to the steep hillsides present as well as dense forests lands.

CONCLUSION

is the area generally "encircled"?

BA YES

□ HO

Reighborhood and Regional Characteristics

X YES

Do general neighborhood and x

THE PROPERTY AND ADDRESS OF THE PARTY OF THE

Public Pacilities and Services

D YES

Is public water generally available to the subject area?

٠,٠

TT YES

68 NO 2 Dvs.

COHNERTS

0 5-10 scres .

□10-20 acres

Daore than 20 acres

The percel size and ownership pattern surrounding area is predominantly:

Enore than 40 acres

COMMENTS

Adjacent timber properties in ore generally owned and pre timber producing areas.

CONCLUSION:

Do available public facilities and serv

DOYES "

Вио

Parcel Size and Ownership

in The percel size and ownership pattern of the subject

THE PARTY OF THE P

Diess than 5 acres

CONCLUSION C

Does the parcel size and owner and adjacent surrounding area relation to the lands' actual that the area is "conmitted"?

5. Deelling Unit Density

The existing Cuelling unit density is predominantly:

⊠1 du per 2 acres or less

ELL MILLING OF CATTERED

force on rebote to concluding that the creams committed. However, the adjacent properties which are forest lands do

CONCLUSION

Myrs

О НО

ULTIMATE CONCLUSION

- . 🔀 Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025.

TO DESCRIPTION OF AREA

A. Description Township 25, Range 12, Section 19, 20,

11. INFORMATION BASE

A. Existing Adjacent Uses 4 M Generally Developed; or

Generally Undeveloped

been divided and developed. The adjorent surrounding areas air generally form and/or forest lands which constitute and further inland from the lates edge. Most development is at the Lates edge with a few developed subdivisions being the exceptions

· CONCLUSION .

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

X YES

DNO .

X YES

OTHER RELEVANT FACTORS CONTRIBUTING

Д □но

BYES Is the subject area generally murrounded on 3 or more sides by: i. other "built or committed areas", or

"natural boundaries or other ... buffers separating the exception area from adjacent resource land"?

44 ESHAEIDE

The distinguished on the life and appointed from adjusted former between the second Future inland development is simpractical due to the billsides present as well as dance forests lands.

CONCLUSION

Is the area generally "encircled"?

₩ YES

DNO .

AND THE RESIDENCE OF THE PARTY
Do general neighborhood and regional characteristics contribute to a

To public sever generally avail to the subject area?

In the subject area within a first protection districts. D YES

18 to make the stange Will

CONCLUSION

Parcel Size and Ownership Patterns The percel size and ownership pattern of the sobjectives is predominately:

Di du per 5 aprei

The parcel tize and ownership pattern of the adjacent surrounding area is predominantly:

D10-20 acres

D20-40 acres

. Smore than 40 acres

Adjacent timber properties inland from the committed areas ore generally owned and presently managed as commercial timber producing coreas.

Does the percel size and ownership patterns of the subject and adjacent surrounding area, when considered together invaluation to the lands' actual use, contribute to a conclutant the area is "committed"?

□ко

5. . Dwelling Unit Density

The existing dvelling unit density of the subject area is predominantly:

S1 du per 2 ecres or less

COMMENTS

The parcel size and the ownership patterns of the sul area contribute to concluding that the area is com-However, the adjacent properties which are forest lands

CONCLUSION .

Does the predominant duelling unit density of the subjected contribute to a conclusion that the area is "commi

MYES

D NO .

ULTIMATE CONCLUSION .

BUILT OR COMMITTED LANDS WORK-SHEET

DESCRIPTION OF AREA

1. A. Description Township 23, R. 12, Section 21, 22, 28

S. Study Area A-5 INFORMATION BASE

A. Existing Adjacent Dass Generally Developed; or

CONHENTS

ALARrea Consists of Several areas valeng Ten Mile Lakes which have been devided and developed. The adjacent Surraunding areas are agreement form and/or frost lands which constitute and further inland from the lates edge. Not development is at the Late's adjace with a few developed subdivisions being the exception.

CONC CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

M YES

... y □ ×o.

बुर देखाँ हैं किए बार, या में अपने का का का अपने का कुर्ण कर का अपने स्था

B. OTHER RELEVANT FACTORS CONTRIBUTING TO CONKITHENT

1. Encirclement

Ø YES DH0 . .

On 3 or more slows ...

i other "buil" or committed ...

areas", or

ii "naturel boundaries or other ...

buffers separating the ...

exception area frow addacant resource land"?

COMMENTS
The decileped coreas on the labs are separated. built upon parcels occur most distinctively obutti Future inland development is impractical due to the hillsides present as well as dense forests lands.

CONCLUSION

the area generally "encircled"? .

2. Reighborhood

Ø YES

Do general neighborhoo characteristics contri

Public Pacilities le public water generally memilable to the subject arem? □10-20 acres Omore than 20 scres Is public sever generally available to the subject area? TYES The parce) size and ownership pattern of the adjacent surrounding area is predominantly: B 10 D10-20 acres D YES Is the subject arem within a fire protection district? □20-40 acres . Bo No Mmore than 40 acres COMMERTS COMMENTS Adjacent timber properties inlend from the committed areas one generally owned and presently managed as commercial timber preducing areas. CONCLUSION Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered toge relation to the lands' actual use, contribute to a that the area is 'committed'? DYES ्रे, **⊠** भ0 4. Parcel Size and Ownership Patterns The percel size and ownership pattern of the subject. 5. Dwelling Unit Density The existing duelling unit density of is predominantly: ☑less than 5 acres **的比例和特别的特别**的 a News 0 BUILT OR COMMITTED LANDS WORK-SHEET 1 du per 5 acres I. DESCRIPTION OF AREA A. Description Township 23, Range 13, Section 13 1 du per 10 acres or more COHHENTS B. Study Area 8-1 The parcel size and the ownership patterns of the subject area contribute to concluding that the area is committed C. Acrenge 66 acres However, the adjacent properties which are forest lands do Existing Adjacent Uses So Generally Developed; or Generally Undeveloped COMMENTS CONHENTS

Area consists of several small partels adjacent to 0.6. Highways
which are desemped for residential purposes. The adjacent severaareas are generally large forest heldings of Sieslaw National 1.1

Mest development is at the dighway's edge. CONCLUSION . Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? . CONCLUSION □ ко Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ULTIMATE CONCLUSION XES Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: ON O Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? ☐ Irrevocably committed to an extent that satisfies
 the standards of OAR 660-04-025. Sak 2 Physically developed or built upon to an extent that scriffes the standards of OAR 660-04-025. D NO

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partial value so the tellish Il the funder alos the the make the wife of the mounted of To they should be readed flow bullurs reparating the exception area from adjacent resource.land"? **™**YE5 Is the subject area within a fire protection district? The developed areas along the Highway on separated from the adjacent forest lands by the cristing terrain. Future intend development is impractical due to the steep hillsides present □ NO COHMENTS Lakeside REPD has jurisdiction over this area. Somer and we as well as the ownership potterns (Sivalew National Forest). cost of extending facility lines. area generally *encircled DNO. Do general neighborhood and regional characteristics contribute to a conclusion that the area for Parcel Size and Ownership Patterns conclusion that the area is "conmitted"? 2 less than 5 acres And the same of th 1 du per 5 acres Deore than 20 acres The parcel size and the currents patterns of the sul contribute to concluding that the area is commissed in adjacent properties which are forest lands do not the The parcel size and ownership pattern of the adjacent surrounding area is predominantly:

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ULTIMATE CONCLUSION --

d above.

☑ Irrevocably committed to an extent that the standards of OAR 660-04-025.

nt timber properties one gene

П NO Ч Deelling Unit Density

The existing dwelling unit density of the subject area

ADCIONAL DE LA CONTRACTION DEL CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DEL CONTRACTION DE LA C

1. 1. 1.

[]10-20 acres

10-20 acres 20-40 acres

COMMENTS

THE STEELS WAR WILL A STATE OF THE STATE OF 3. 14 Hall Wall 1984 The developed schlickien and adjacent percelled Small & are appeared from the adjacent front lends by the ::: middle: of there that and those to and test that illustrates in the parels directly outside the subdivision one developed as well, that development is near the Highway. CONCLUSION CONTINUES OF THE PROPERTY OF THE PROPERTY OF Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? TO YES the area generally "encircled"? NO DHO Neighborhood and Regional Characteristics D10-20 acres M YES Dance than 40 acres Houser, RPPD has presalition over this area. Future extraction over this area. Future extraction of the state extended within the heat, ten years, Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>subject</u>
area is predominately:

27
28
29
20 less than 5 acres

Commence of the second of the

Mless than 5 acres

5. Dwelling Unit Density

⊗1 du per 2 acres or less

The existing deciling unit density of the is predominantly:

" Ol'du per 5 acres

1 D1 du per 10 acres or more

COMMENTS

The parest size and the sumership patterns of the subject area contribute to concluding that the area is committed. However, the adjacent properties which are forcet lands

Specifical Commence of the property of the property

CONCLUSION

□ HO

ULTIMATE CONCLUSION

Based upon a careful consideration of the information bas outlined above, it is concluded that the subject area is:

- Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025.

I. DESCRIPTION OF AREA

- Description Taunship 23, Ronge 13, Section 26,36
- Study Area B-3

A Creage 11. INFORMATION BABE 170 seres

- A. Existing Adjacent Uses 3 S Generally Developed; or
 - ☐ Generally Undeveloped

Area consists of several small pareels adjacent to U.S. Highway Which are developed for residential purposes the adjoinant surgestances are generally large forest heldings of Ungerheuter and whenosha Timber Company's Nest development is at the Highert edge.

. CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 ye impracticable?

NYES .

□ NO

X YES

□ HO

NOTE: "Existing Adjacent Uses" subject area described in 1. above

OTHER RELEVANT FACTORS CONTRIBUTING TO CONHETMENT 医克勒氏病 化磷酸

¥ YES

Is the subject area generally surrounded on 3 or more sides by:

DHO 3

f. other "built or committed areas", or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

CONHENTS

If The diveloped areas along the Highway are separated from the adjacent Screet lands by the existing terrain. Feture inland declepment is impractical due to the steep hillsides present as well as the ownership patterns (timber , companis).

CONCLUSION

N YES

□ NO.

2. Reighborhood and Regional Characteristics

X YES

Do general neighborhood and characteristics contribute conclusion that the area is

The state of the s

n 2r □ NO

3. Public Pacilities and Services

is public vater generally to the subject area?

TYES

Ø NO

is the subject area within is the subject protection district?

COMMENTS .

over this varies. Fish HONTE House RPPD has jurisdiction our this parts future of water lines is feasible according to King philips of Coss Bay North Bend Unter Board, Lines will groupibly within the next 10 few grants

CONCLUSION

Do available public facilities and ser conclusion that the area is "committed

□ YES

Parcel Size and Ownership Patterns

The percel size and ownership pattern of the subject area is predominately; for the subject area is predominately in the subject area is pre

Dless than 5 acres

GID-50.nones 1 du per 10 acres or more Dmore than 30 seres COY CHTS The percel size and ownership pattern of the adjacent surrounding area is predominantly; The parcel size and the ownership patients of the subject once contribute to concluding that the area is committed, D10-20 ecres 20-40 acres Dmore than 40 acres Adjusted timber proporties are generally award and presently managed as commercial timber producine areas COMMENTS CONCLUSION .. Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? ULTIHATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: CONCLUSION The state of the s Does the parcel size and ownership patterns of the land adjacent surrounding area, when considered toge relation to the lends' actual use, contribute to a that the area is 'committed'? Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. المنتاك أهوامها ومحوالا N. у онд по по . 5. Dwelling Unit Density 0: .. The existing dwelling unit density of the subject area is predominantly: ☐1 du per 2.acres or less 11 2 4 2 10. The Best of the Control of the Contr THE RESIDENCE OF A STATE OF THE PARTY OF THE 21:45:30 BUILT OR COMMITTED LANDS WORK-SREET OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT DESCRIPTION OF AREA 1. Encirclement . . TX YES Is the subject area generally surrounded on 3 or more sides by: A. Description Township 23, Range 13, Section 35 DNO other "built or committed areas", or B. Study Area G-4 A Existing Adjacent Uses 1

Comparison Developed on Comparison Comparison Comparison Consists mostly of declarate collins of the consists with the consists could be consisted to the consists of the consists could be consisted to the consists of the consists could be consisted to the consists of the consists could be consisted to the consists of the ii. "natural boundaries or other buffers separating the exception area from adjacent resource land"? 11. INFORMATION BASE COMMENTS " are experient superinsians are organise priests of small arms of experience of experie COMPATE Consists mostly of declaped subdivisions along Soundars the Area Consists mostly of declaped subdivisions are declaped the subdivisions are declaped to subdivisions are declaped to such. Most declaped to smar, the Highway with large class and aways high resembles resuming extends the committed area; CONCLUSION Do existing adjacent uses make uses allowed by LCDC Cosl 3 or 4 impredicable? TO YES Is the area generally *encircled*? U D NO M AES Г □ но ⊠ YES 2. Neighborhood and Regional Characteristics Do general neighborhood characteristics contribu MOTE: "Existing Adjacent Uses" inclusions audject, area described in I. above

The same are a figure -

The state of the s

THE PART OF THE PA

 \circ Public Facilities and Services □5-10 acres. Is public water generally available to the subject area? 10-20 ACT+8 . D NO Dmore than 20 acres is public sever generally available to the subject area? T YES The parcel size and ownership pattern of the adjacent surrounding area is predominantly; T HO □10-20 acres Is the subject area within a fire protection district? X YES □20-40 acres □ NO Mmore than 40 acres CONHENTS Hauser REPD has jurisdiction over this area. Future extension COMMENTS of water lines is fersible in the next fow years according to King Philips of the Cros Boy, North Bond Water Board. CONCLUSION CONCLUSION . Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclus that the area is 'committed'? Do available public facilities and services contribute to a conclusion that the area is "committed"? DYES . № но X YES Parcel Size and Ownership Patterns D NO Delling Unit Density The existing dwelling unit density of the is predominantly: age 1 less than 5 acres 1 du per 2 acres or les The state of the s 0 BUILT OR COMMITTED LANDS WORK-SHEET 1 du per 5 acres I. DESCRIPTION OF AREA A. Description Township 24, Range 11, Section 20 Study Area C-1 The pared size and numership potterns of the subject to Concluding that the area is committed. 76 ocres forme to be committed. 11. INFORMATION BASE Existing Adjacent Uses Generally Developed; or This Civily area has been prepried by Milk Pupp to the This Civily area has been prepried by Milk Pupp to the Committed. The ones consists of a few small period to committed. The united period period to the first consists from the first forces. The first forces of the consists of the c CONCLUSION **第一年三朝4年3** CONCLUSION .3. но 🗆 но BLTINATE CONCLUSION □YES Ø HO Khased upon a careful consideration of the information of the information outlined above, it is concluded that the subject Is the area physically developed or built it satisfies the DAR 660-04-025 standard? DYES 5 Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

TO THE PARTY OF THE STATE OF TH

Co. All T respectable of the commentations "natural boundaries or other buffers separating the exception area from adjacent resource land"? NO NO YES COHHENTS 18 is the area generally "encircled"? SSY [] DÝES TO CO. Parcel Size and Ownership Fatterns Do general neighborhood and region characteristics contribute to a The parcel size and ownership pattern of the subject area is predominately: conclusion the "committed"? Dless than 5 acres 2 35-10 acres . 2 □ 10-20 acres only two dwellings within the subjects area, generally is net developed to the point of being 200-20 acres

77 □20-40 acres

□ pore than 40 acres CONCLUSION Ø NO ULTIMATE CONCLUSION Irrevocably committed to an extent that the standards of OAR 660-04-023. Dwelling Unit Density

OTHER RELEVANT PACTORS CONTRIBUTING TO CONKITHENT BUILT OR CONHITTED LANDS WORK-BREET Encirclement is the subject area generally surrounded in a prince sides by: X YES DESCRIPTION OF AREA Description Township 24, Range II, Section 19 DNO other *built or committed areas*, or - B. Study Area C-2 *natural boundaries or other buffers separating the exception area from adjacent resource land*? ALTERACE BASE 76 ALTYS A. Existing Adjacent Uses 1 COMMENTS Generally Developed; or The committed areas are separated from adjacent agricultural: Generally Undeveloped and forest uses by the Millicoma River, COMMENTS Arra consists of Several parcels ranging from .53 acres to 9.5 is peres in size which are developed to residential uses, CONCLUSION Do existing adjacent uses make uses allowed by LCDC Gowl 3 or 4 impracticable? CONCLUSION SYES TO SEE Ø YE6 □ NO 2. Heighborhood and Regional Characteristics Bay es __ D #0 "Existing Adjacent Uses" includes all uses in the rea described in I. above.

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HALL & BELL THAT IS

The same that th) Public Facilities and Services is public water generally available to the subject area? □10-20 acres April We · DONO More than 20 acres TAN DYES is public sever generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: Is the subject area protection district? TARE. □20-40 acres **25** NO Dmore than 40 acres CONNENTS CONHENTS The adjacent expresending persels, are small scale form and revest uses - built upanis . CONCLUEION CONCLUSION Do available public facilities and servicenclusion that the area is "committed" Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered to relation to the lends' actual use, contribute to that the area is "committed"? T / DYES The parcel size and ownership pattern of the <u>aubject</u> Пиоз . . 5. Dwelling Unit Density The existing dwelling unit density of the is predominantly: Dless than 5 acres □1 du per 2 scres or less ,

The state of the s BUILT OR CONHITTED LANDS WORK-SHEET ිල M1 du per 5 acres 1. DESCRIPTION OF AREA A. Description Township 24, Range II, Section 30, 31 B. Study Area C-3 C. Across 52 acres; 34 acres committed A. Existing Adjacent Uses 1 D Generally Developed; or Generally Undeveloped The ones consists of small parcels which are dev The area contests of small parrels union are decoupled for the standard of the Lots 200, 100, 100, 100, and 400 located in Section 21DC. These few the left ware and 400 located in Section 21DC. These few the left ware suggested by hike Ripp fee committeed, but do not must the criteria of OAR-CV-O25. The county has somed them as forest parcels. . D NO CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or impracticable? X YES Is the ares physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? .. DYES Physically developed or built upon to an extent that satisfies the standards of OAR 560-04-025. DNO "Existing Adjacent Uses" includes all area described in 1. above. AND THE PROPERTY OF THE PROPER Ou. B. COTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Is public water generally to the subject area? S. Charles in a D ves . Is the subject area generally surrounded on 3 or more sides by: i. other "built or committed areas", or "natural boundaries or other buffers separating the exception area from adjacent resource land"? DASS Is the subject arem protection district? COMMENTS rated from prime forest lands by the . 120 но CONMENTS CONCLUSION Do svailable public facilities and services controconclusion that the area is "committed"? D YES (2) NO . 153 14 3000 A. - Parcel Size and Ownership Patterns Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? The parcel size and ownership pattern area is predominately: Dless than 5 acres

THE RESIDENCE OF THE PROPERTY OF THE PARTY O

The parcel size and ownership pattern of the adjacent surrounding area is predominantly: □10-20 acres □20-40 scres Mmore than 40 acres COMMENTS Adjacent surrounding area is predominantly large commercial Does the predominant dwelling unit density of the subject-area contribute to a conclusion that the area is "committed" timber heldings. D NO ULTIMATE CONCLUSION Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered to relation to the lands' actual use, contribute to that the area is "consitted"? Physically developed or built upon to an extential satisfies the standards of OAR 660-04-025 5. Dwelling Unit Density The existing duelling unit density of the is predominantly: 1 du per 2 acres or less BUILT OR COMMITTED LANGE WORK-SHEET OTHER RELEVANT PACTORS CONTRIBUTING TO COMMITMENT DESCRIPTION OF AREA MYES Is the subject area generally sur on 3 or more sides by: A. Description Township 24, Range II, Section 33 i. other built or com B. Study Area C.4 ii. "natural boundaries buffers separating to exception area from resource land"? Acreage 31 acres All Existing Adjacent Uses . Generally Developed; or, CONHENTS Generally Undeveloped a The committed area is separated from the large ent areas by the Hilli come COHHEHTS Area consists of parels relatively small in size which are presently developed to residential uses. All but two of the prisontly devirous to residential continues to them. The adjacent process currently have dwellings on them. The adjacent process are generally forest lands which are a standard managed by Degarbactor, timber company, and managed by Degarbactor, timber company, CONCLUSION

CONCLUSION

YES C

2. Neighborhood and Regional

D HD . . .

(14 16 sires

DHO

Is the area physically developed or built upon it satisfies the DAR 660-04-025 standard?

THE RESIDENCE OF THE PROPERTY
NEWS

The parcel size and ownership pattern of the adjacent surrounding area is predominantly:

□10-20 acres

120-40 acres

Mmore than 40 acres

COMMENTS

Adjacent surrounding area is predominantly large co fimber heldings.

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together i relation to the lands' actual use, contribute to a conclutant that the area is "conmitted"?

X YES

5. Dwelling Unit Density

The existing dwelling unit density of the is predominantly:

N1 du per 2 acres or less

CONCLUSION

Does the predominant duelling unit density of the subject area contribute to a conclusion that the area is "commit

Ø YES

□ NO

ULTIMATE CONCLUSION

136 O

Based upon a cereful consideration of the information base outlined above, it is concluded that the subject area is: dur Fran Fift

Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

BUILT OR COMMITTED LANDS WORK-SHEET

DESCRIPTION OF AREA

A. Spescription Township 24, Range II, Section 33

B. Vatudy Area C.4 C. Acreas 31 acres

A pristing Adjacent Dass 3

Generally Developed; Or

Generally Undeveloped

COMMENTS Area consists of parcels relatively Small in size which are presently developed to residential view. All but two of the presently developed to residential view. All but two of the parcels currently have developed to them. The adjacent typerates currently have developed forest lands which are sound that the parcel of the pa

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4

E YES

EF Dro

is the area physically developed or built upon it satisfies the OAR 660-04-025 standard?

OAR BOU

TOTAL MYES

DHO

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMETMENT

1. Encirclement

YES

DHO

other built or

COMMENTS

itted area is separated from rette large anagement areas by the Milliams River.

D YES

7. Reighborhood and Regional Characteristics

Do general neighborhood characteristics contribut conclusion that the area conmitted ?

THE PROPERTY OF THE PROPERTY O

() public feetlities and Services □ 1-10 acres is public vater generally available to the subject area? . DYES □10-20 aeres Dwore than 20 acres Is public sower generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: DO NO □10-20 acres Is the subject area within a fire protection district? TYES D20-40 acres Ø HO Mmore than 40 acres COMMENTS COMMENTS CONCLUSION TO A STATE OF STATE CONCLUSION -Do available public facilities and services contribute to a conclusion that the area is "committed"? DYES. BNO CONTRACTOR SERVICES OF THE SERVICES 14: 1 Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>subject</u> area is predominately: 5. Dwelling Unit Density The existing dwelling unit density of the is predominantly: Dless than 5 acres 1 D1 du per 2 acres or less THE RESIDENCE OF THE PROPERTY OF THE PARTY O Therefore where the transfer to the state of 131 du per 5 acres 0 BUILT OR CONNITTED LANDS WORK-SHEET ... I. DESCRIPTION OF AREA 46.03 A. Description Township 34, Range 11, Section 25, 26 1 ou per 10 acres of more Study Area C-6 CONHENTS so acres C. ALTERSE & A. Existing Adjacent Uses Generally Developed; or Generally Undeveloped COMMENTS Area consists of several small to residential uses. Host preparties; a to the Millicome, Bree. M YES CONCLUSION . П но OLTINATE CONCLUSION D TES _ Вир ☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. DYES .

hilfren timbethern dim knochenb The second of th 3 "natural boundaries or other buffers separating the exception area from adjacent resource land"? DYES The Millicome River is a natural boundary which separates the committed area from adjocent communical forest uses MARIE CARL CONCLUSION CONCLUSION Is the area generally "encircled"? traudote, amaia usay (D) YES Neighborhood and Regional Characteristics ØNO € 4. Parcel Size and Ownership Patterns Do general neighborhood and regional characteristics contribute to a Dless than 5 acres property and was the second state of □5-10 acres □10-20 acres The parcel size and ownership patts surrounding area is predominantly: . □10-20 acres √ D20-40 acres Smore than 40 acres COMMENTS ? CONCLUSION es contribut □ NO ULTIMATE CONCLUSION CONCLUSION Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered toge relation to the lands' actual use, contribute to a that the area is "committed".

- Dwelling Unit Density

⊠1 du per 2 acres or less

A STRUCK OF THE REAL PROPERTY OF THE PERSON
at militaria. St the Dree. DESCRIPTION OF AREA YE5 the subject area generally surrous 3 or more sides by: Description Township 24, Range 12, Section 05,06,07 other built or committed areas, or B. Tatudy Area D-1 "natural boundaries or other buffers separating the exception area from adjacent resource land"? CAT Acreage 230 acres; 214 acres committed INFORMATION BASE A. . Existing Adjacent Uses Generally Developed; or Areas adjacent to the committed areas are generally steep hill sides which make future development inland imprestic Most adjacent ferest lands are sworld and managed by 📆 🚋 🗖 Generally Undeveloped CONHENTS Area consists of parcels generally about five ocres in size which have been developed to residential uses with the exception Communical timber companies which have been developed to residential uses with the exception of Tax Lets acc, 1700, and 0400 located in Section 07A which have been proposed by thise Rupt to be considered for committeent. The County has 2011 they parcels as Erclusive Farm Use as they do not meet the critical of OAR GEO-04-025 for I committeent. Dealopment occurs must frequently along side of the Conclusion. existing adjacent uses make uses allowed by LCDC Goal 3 or 4 practicable? CONCLUSION · Project YES . □ NO Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? D YES ... Neighborhood and Regional Characteristics DHO . Do general neighborhood characteristics contribu F NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. above. 0 Public Pacilities and Services 285-10 acres A Dres D10-20 acres Omore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: Is public sever generally available to the subject area? D YES D10-20 acres is the subject area within a fire protection district? D YES D20-10 acres ħ. Å □ Ho, ` CONHENTS More than 40 acres CONHENTS (S. C. the study area is located in o fire protection district - Hauser RFPO. 100 CONCLUEION CONCLUSION Does the parcel size and ownership and adjacent surrounding area, whe relation to the lands' actual use, that the area is "committed"? T DYES Вио

Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the subject area is predominately:

□но

5. Dwelling Unit Density

II, INPORMATION BARE Existing Adjacent Uses J S Generally Developed; or Generally Undeveloped Area consists of parcels approximately 3.4 acres in size leaded of verious points along Hagnes Shugh Co. Rd. All. but two off the parcels have existing duellings on thum.

Adjacent parcels consist of small form and forested areas with a few houses located on them. COMMENTS CONCLUSION Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? CONCLUSION ULTIMATE CONCLUSION YES YES based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: . □ NO X YES Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. DNO **经验证证据的** OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT 1. Encirclement T YES is the subject area generally surrounded on 3 or more sides by:

i. other "built or committed areas", or

ii. 'natural boundaries or other buffers esparating the exception area from adjacent resource land"? Is public sewer generally available to the subject area? ii. 'natural boundaries or other buffers separating the exception area from adjacent resource land'? Area is encircled by ismall authorships which are amount for for a mill the property search of these presence parels have inducting an them. encircled by Demall aumorphips which are zon DNO A -North By Preb. COMMENTS CONCLUSION CONCLUSION DO YES Meighborhood and Regional Characteristics DNO Do general neighborhood and regional Parcel Size and Ownership Patterns characteristics contribute conclusion that the area is "committed"?

O

D1 du per 10 acres or more

COMMENTE

- Line and the second

The same of the sa

Description Township 24, Range 12, Section 17 and 18

I. DESCRIPTION OF ARLA

Study Area D-2

D1 du per 10 acres or more Generally there is about I duelling per 2 3 acres Dmore than 20 acres COMMENTS The parcel size and ownership pattern of the adjacent surrounding area is predominantly! 2010-20 acres ☐20-40 acres Doore than 40 acres CONHENTS CONCLUSION boes the predominant dvelling unit density of the subject area contribute to a conclusion that the area is "conmitted" M YES □ HO ULTIMATE CONCLUSION Based upon a careful consideration of the information bas outlined above, it is concluded that the subject area is: Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. оно : Dwelling Unit Density The existing dwelling unit density of the subject area is predomin ntly: 617 1 du per 2 acres or less OTHER RELEVANT FACTORS CONTRIBUTING TO CONKITHERT BUILT OR COMMITTED LANDS WORK-SHEET - 4 15 FE 1879 DESCRIPTION OF AREA Is the subject area generally surrounded on 3 or more sides by: ore sides by: other 'muilt or committed 'muilt areas', or A. Description Township 24, Range 12, Section 34 B. Stody Ares D-3 ii. 'natural boundaries or other.'
buffers separating the exception area from adjacent resource land'? GO ACTES . CHE Acreage INTOMMATION BASE Arrived Departable Department Uses COMMENTS is separated from adjacent forest by the existing terrain Future inland development 1855 impractical due to the steep hillsides present as well as commercial timber currents political of the area COMMENTS

13- Area consists of developed parcels adjacent to Kentuck Co.

13- Area consists of developed parcels are built upon and

13- Road No. 27. All but three parcels are built upon and

13- Road No. 27. All but three parcels are built upon preparties.

14- Individual parcels are encircled by the built upon preparties.

15- Mast development occurs directly adjacent to the road. 11. CONCLUSION existing adjacent uses make uses silves by the coming of a practicable?

Wits

Wits

White I wo

Chief the physically developed or built upon to the extent that this lies the OAR 650-04-025 standard? CONCLUSION ? M res Is the area generally "encircled"?-Neighborhood and Regional Characteristics □ H0 ,.

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05-10 acres

D10-20 acres

1. Nobite transcription and deposition

The the state of t

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Sec Mary

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/ Dam

is public sever generally available to the subject area?

. **⊠** NO

Tari Orei

Is the subject area within a fire protection district?

1 ≥ NO

COMMENTS

Dmore than 20 acres

The parcel size and ownership pattern of the adjacent aurrounding area is predominantly:

□10-20 acres

D20-40 acres

Mmore than 40 acres

CONCLUSION

2014(290)

Do available public facilities and services contri-conclusion that the area is 'committed'? acceptant

Dano BNO Parcel! Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the subject area is predominately:

hunger the second se

Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"?

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025.

Thysically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

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less than 5 acres

CONCLUSION

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is 'committed'?

Оно

5. Dwelling Unit Density

The existing dwelling unit density of the studyet area is predominantly

THE RESIDENCE OF THE PERSON OF

1 60 per 5 acres

1 01 du per 10 acres or more

COHNENTS

CONCLUSION

₩ YES

II NO

ULTINATE CONCLUSION

I. DESCRIPTION OF AREA

A. Description Township 24, Range 13, Section 01, 03

BUILT OR COMMITTED LANDS WORK-BREET

Study Area E-1

C. Acreage 290 acres

A. Existing Adjacent Uses S Generally Developed; or

Generally Undeveloped

COMMENTS Area consists of several subdivisions and adjacent dividep Area Consists of Secret Secret Secretary of Small parcels with diverse connership patterns. Development occurs an both sides of Highway 101 with the majority of built upon parcels to the east of 101,

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

YES.

□ ₩0

Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard?

(2) YES

□ HO

i NOTE: "Existing Adjacent Uses" includes all subject area described in I. above.

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Pacilities and Serviceseven OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITMENT I... Encirclement Is public water game to the subject area? M YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? MO NO X YES CONHENTS Is the subject area within a fire protection district? Area is surrounded on two sides by further developed □ NO and committed arras (North and South). Hauser RFPD . Water lines will probably be extended into the area with the next 10 years. 484 CONCLUSION CONCLUSION Do available public facilities and service conclusion that the area is "consitted"? 2. Heighborhood and Regional Characteristics ₽ио N YES Do general neighborhood and r characteristics contribute to conclusion that the area is "committed"? 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern area is predominately: ශ්රී ව □10-20 acres Omore than 20 acres The percel size and ownership pattern of the adjacent surrounding area is predominantly. □10-20 acres # 20-40 acres CONHENTS CONCLUSION B YES □ HO WULTINATE CONCLUSION CONCLUBION 是"但"的是一个。 基础的 M YES Dire Dwelling Unit Density The existing dwelling unit de

TOTAL LILEY BURE POLICE CHARLES CHARLES THE PROPERTY OF A SAME

OTHER RELEVANT FACTORS CONTRIBUTING I. DESCRIPTION OF AREA A. Description Township 24, R. 13, S. 02, 11, 14, 1 15 DNO Study Area E-2 C. Acres . 465 Acres "natural boundaries or other buffers separating the exception area from adjacent resource land"? A. Existing Adjacent Uses → Somerally Developed; or Generally Undeveloped COMMENTS Are consists of small developed porcels and encircled larger percels adjacent to U.S. Highway 101. Secural industrial parcels are also present in the area which attributes to the degree of development for commitment. A some Reval Center (RQ) is also a large portion of the committed area. Area is encircled by committed areas to the North a . South. CONCLUSION CONCLUSION Do existing adjacting ad Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? CONCLUSION ្ឋ៖ មេ . IX YES Ø YES Neighborhood and Regional Characteristics Do general neighborhood Morry "Existing Adjacent Uses" inclusubject area described in 1. above. includes all uses in the To the second

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¥.

DIES Is public water generally available	O D5-10 acres
to the subject area?	□10-20 acres
Is public sever generally available	Omore than 20 acres
to the subject area?	The parcel size and ownership pattern of the adjacent surrounding area is predominantly:
	⊠10-20 acres
te the subject area within a fire protection district?	20-40 acrea
DNO COMMENTS	Omore than 40 acres
Hausen RTPD. Public water lines will probably be present. The control of the con	COMMENTS
the Coop Bay North Gind Uster Board	C
CONCLUSION Do available public facilities and services contribute to;a	CONCLUSION
conclusion that the area is "consitted"?	Does the parcel size and ownership patterns of the subject of and adjacent surrounding area, when considered together in the relation to the lands actual use, contribute to a conclusion of
Dyes	that the area is 'committed'?
Parcel Size and Ownership Patterns	Ø vrs
A the parcel size and ownership pattern of the subject area is predominately:	5. Deelling Unit Density
Bless than 5 acres	The existing dvelling unit density of the subject area: is predominently:
	1 du per 2 acres or less

Action of the court is a state of

ALITH COMMENT

COMMENTS

Area consists of very small sumurhips as well as larger (+10 overs) periods which are huilt upon for residualid uses.

CONCLUSION

Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"?

T YES

□ NO

ULTIMATE CONCLUSION

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

DESCRIPTION OF AREA

Description Township 24, Ronge 13, 6, 14,15,13,23,23,24,112

Study Ares E-3

C. Acreage 1120 acres

Existing Adjacent Uses 3 S Generally Developed; or

Generally Undeveloped

Area consists of developed percels and encircled non-developed perce along North Bay Drive and Haynes Storgh Temph ton Co. Read Perce are generally less than 2 area, in size.

Tay Let 2023 fronted in Section 24 has been proposed by Phile. Rupp to be committed as well. The county has sound this property Exclusive Form Use and it does not appear to meet the criteria established in OAR-660-04-025 for committee.

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

the area physically developed or built upon to satisfies the OAR 660-04-025 standard?

X YES

D NO

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

5°

Incirclement Type

and the state of t Is the subject area generally surrounde on 3 or more sides by:

DHO DHO

other "built or committed areas", or

engineers to the second second second second second second second

COMMENTS

11. Instural boundaries or other buffers separating the exception area from adjacent resource land?

COMMENTS

Area is corrounded by committed areas to the North and South. Haynes Slough to the north forthers acts as a buffer from the adjacent terest lands and egicentural lands. Hoynes Slough to the

Public Facilities and Services

Is public water generally available to the subject area?

D NO

T YES

Is public sever generally available to the subject area?

YES :

DNO

COMMENTS

CONCLUSION

YES YES

\$ D₩ 🐣

Neighborhood and Regional Characteristics

Do general heighborhood and characteristics contribute to conclusion that the area is "committed"?

ØYES 12

Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the area is predominately:

Dless than 5 acres

Do available public facilities conclusion that the area is "c

A District of the second of th

D5-10 acres D10-20 scres D1 du per 10 acres or more Daore than 20 acres MENTS

correlly there are 1 du per 2 arres or his accurring in the
arres. Larger parcels are present in the area but are last;
to their valve as resource lands due to the ancirelement
of existing development. □10-20 acres 20-40 acres Dmore than 40 acres COMMENTS CONCLUSION X YES D NO . ULTIMATE CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"? ☑ Irrevocably committed to an extent that satisfie the standards of OAR 660-04-025. 7-с□но 5 Dwelling Unit Density The existing dwelling unit density of the subject area 21 du per 2 acres or less -The same of the sa OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITHENT BUILT OR COMMITTED LANDS WORK-SHEET 1. Encirclement IF DESCRIPTION OF AREA DESCRIPTION OF AREA

A Description Township 24, Ronge 13, Section 12

B Study Area: E-4 is

A Creage C7 acres

II. IMPORMATION BASE

A PERIAting Adjacent Uses

A PERIAting Adjacent Uses

A PERIAting Adjacent Uses

A PERIATING ASSECTION OF SECTION OF SEC D YES ⊠но "natural boundaries buffers separating t exception area from resource land"? COMMENTS : Werest lands. CONCLUSION

TO existing adjacent uses make uses allowed impracticable? CONCLUSION impracticable? the area physically developed or built the area physically developed or built pastisfies the OAR 660-04-025 standard? ØNO. 2. Reighborhood and Regional Characteristics YES . (DW) - □ NO -

and the second

DS-10 acres Is public water generally available to the aubject area? more than 20 acres Is public sever generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: □10-20 acres X YES Is the subject area within a fire protection district? □20-4D acres > DHO Mmore than 40 acres CONHENTS - Hauser COMMENTS CONCLUSION CONCLUSION Do svailable public facilities and services contribute to a conclusion that the area is "committed"? DON ST 417) Parcel Size and Ownership Patterns DNO . The parcel size and ownership pattern of the <u>subject</u> area is predominately: Delling Unit Density The existing dwelling unit density of is predominantly: 1 10 B less than 5 acres 11 du per 2 acres or less 一年 的一种中国 医神经性 医神经性 1. DESCRIPTION OF AREA Description Township 24, Range 13, Section 25 1 ou per 10 acres or Study Area E-5 40 acres C. Acronge Existing Adjacent Days J S Generally Developed; or Generally Undeveloped COMMENTS / Area consists of parcels tan which are all built upon CONCLUSION TO YES □но′; TX YES. Physically developed or built upon to an extent that satisfies the standards of DAR 650-04-025. `, □но

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M St

3. Public Facilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO CONKITHENT Is public water gener to the subject area? D YES 1. Encirclement X) NO is the subject area generally surrounded on 3 or more sides by: TO YES is public sever generally available to the subject area? DHO O YES i. other "built or committed areas", or D NO ii. "netural boundaries or other buffers separating the exception area from adjacent resource land"? Is the subject area within a fire protection district? Ø YES □ NO Area is encircled on two sides by Hagnes Slough, Further, COMMENTS there are committed areas located to the North and North Bay RFPD. subject area CONCLUSION Do available public facilities and servic conclusion that the area is 'committed'? 7 is the area generally "encircled"? ' ₩YES OHC! 2. Helphorhood and Regional Cheracteristics 4. Parcel Size and Ownership Patterns Do general neighborhood and regional characteristics contribute to a The parcel size and ownership pattern of the <u>subject</u>; area is predominately: YES. D HO Dless than 5 acres Õ The state of the s E 20 2-10 scres 131 du per 5 acres D10-20 ecres 1 du per 10 acres or more The parcel size and ownership pattern of the adjacent surrounding area is predominantly: &c. 20-40 seres Dmore than 40 acres CONCLUSION CONKENTE M YES . □ но in the same ULTIHATE CONCLUSION Based upon a cereful consideration outlined above, it is concluded th hes the parcel size and ownership patterns of diadjacent surrounding area, when considered lation to the lands' actual use, contribute hat the area is "committed"? the stendards of OAR 660-04-025.

Physically developed or built upon to are that satisfies the standards of OAR 660-DASS -0 Dwelling Dnit Density Time existing duelling unit density of the subject area O D1 du per 2 acres or less

Salar Marketine La

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT BUILT OR COMMITTED LANDS MORK-SHEET I, DESCRIPTION OF ANEA 1. Encirclement is the subject area generally surrounded on 3 or more sides by: D YEA A. Description Tounthip 24, Ronge 12, Section 26,35,136 DHO i. other built or committed areas, or S. Study Area E-6 C. Acrege 144 acres *natural boundaries or other buffers separating the exception area from adjacent resource land"? COMMENTS
Area
U.S. A. . Existing Adjacent Uses I M Generally Developed; or CONHENTS The committed area is commeted by Haynes Slough on one side and the other side consists of large commercial Generally Undeveloped Area Coinsists of demopred parents beated adjacent to old U.S. Highway 101. Appreciately 17% of the parents are prevently in residential uses. Most of the late are part of an old citalization known as classess shore Acres. timber holdings (Weyerhauser Cc). CONCLUSION - Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ₩ YES D YES Is the area generally "encircled"? X YES 12 the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? 2. Neighborhood and Regional Characteristics рио Do general neighborhood and r characteristics contribute to IX YES conclusion that the area is "committed"? MOTE: "Existing Adjacent Dass" includes all uses in the subject area deacribed in I, above. 是在其中的社会之间,是这种的社会的社会,并是这种社会的主义的社会的社会。 the first that the second Public Facilities and Services □5-10 acres Is public water generally available to the subject area? Dmore than 20 acres TI D YES Is public sever generally available to the subject area? The parcel size and ownership surrounding area is predominal ₩ NO Is the subject area within a fire protection district? MYES . COMMENTS Mmore than 40 North Bay COMMENTS: 4

The administration of the control of

能有實際的心

CONCLUSION

DYES DINO

less than 5 acres

Do available public facilities and services conclusion that the area is "committed"?

Parcel Size and Ownership Patterns

The Ales Versal of the D1 du per 2-acres or less

MUNICIPAL MICHIGAN SERVICE AND CONTRACT CONTRACT OF THE SERVICE OF

CONCLUSION 4

Does the parcel size and ownership and adjacent surrounding area, whe relation to the lands' actual use, that the area is "committed"?

The existing dwelling unit density of the is predominantly:

Ø YES.

Dwelling Unit Density

G Di du par 5 acres D10-20 acres Dnore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly; 110-20 acres ___ D20-40 acres more than 40 acres CONCLUSION Does the predominent dwelling unit density of the grea contribute to a conclusion that the area is D YES D NO III. ULTINATE CONCLUSION CONCLUSION I Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. use, contribute to a conclusion Physically developed or built upon to an extent that satisfies the standards of OAR 660-D4-025. . de □#0 The existing overling unit density of the subject area is predominantly: Di du per 2 acres or less THE WAY WAY PULL OR COMMITTE BUILT OR CONNITTED LANDS MORK-SHEET

DESCRIPTION OF AREA B. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT. 1. Encirclement DHO ⊠ YES A. Description Township 26, Range II, Section 06 131(T.34,R.I) B. Study Area F-1 - Ereican "natural boundaries buffers seperating the exception area from adjacent resource land"? ja kapian arasa sa sa kabila A. Existing Adjacent Uses Generally Developed; or COMMENTS Area is encirated by large economical timber halden as will as large agricultural land holdings. Further development tibled appears imported due to the think CONNENTS CONSISTS OF SMall Scholar CONNENTS parcels beated adjacent terrain and large ownsens patterns of the adjace to the Allegony Road

> is the area generally "encircled"? ⊠ YES □ NO 2. Neighborhood and Regional Characteristics Do general heighborhoo characteristics contri □no

THE REPORT OF THE PROPERTY OF

DNO

We have a physically developed or built upon to it last size the OAR 660-04-025 standard?

By YES

Ø YES □ NO

Description Township 24, Range 13, Section 26, 27, 34 1 du per 10 acres or sor Study Area E-7 COMMENTS C. Acreage 90 acres Existing Adjacent Uses 1. Aren consists of a built and developed cubdivision kn Shorewood Addition. A few pareels outside the subdivision , also included within the committed area loc to their develop CONCLUSION . CONCLUSION ULTINATE CONCLUSION DNO Is the area physically developed or built upon it satisfies the OAR 660-04-025 standard? Physically developed or built upon to an extent that batisfies the standards of OAR 660-04-025. XX YES OND THE RESERVE OF STREET AND THE STREET STREET, STREET STREET, STREET, STREET, STREET, STREET, STREET, STREET, ST 3. Public Facilities and Services ELEVANT FACTORS CONTRIBUTING TO COMMITMENT ☐ YES 'nstural boundaries or other buffers separating the exception area from adjacent resource. land'? NO NO L Ø YES COMMENTS & DNO. COMMENTS North Bay RFPD CONCLUSION TO

DAS (1)

☑less than 3 acres

Parcel Sixe and Ownership Patterns

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3 d □ #0

PARTY AND THE PROPERTY OF THE PROPERTY OF THE PARTY OF TH

Water the star in 1 . Water 67 Di du per i acres .. D30-20 seres D1 du per 10 seres or m Onore than 20 seres The percel size and ownership pattern of the adjacent surrounding area is predominantly; 1 D10-20 acres __ D20-40 acres More than 40 acres COMMENTS Does the predominant dwelling unit density of the area contribute to a conclusion that the area is X YES DHO ULTIMATE CONCLUSION CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the urea is "committed"? 2 Irrevocably committed to an extent that matinfies the standards of OAR 660-04-025. physically developed or built upon to an extent that satisfies the standards of OAR 560-04-025. D NO 5. Deelling Unit Density The existing duelling unit density of the ≥ 1 du per 2 acres or less The state of the s OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT. BUILT OR COMMITTED LANDS WORK-SHEET DESCRIPTION OF AREA EN YES . A. Description Township 26, Range II, Section 06 + 31(T.74, R.I) other "built or committed areas", or "hatural boundaries or other Study Area F-1 ACTEMAC 30 OCTES buffers separating the Appearation area from adjacent resource land 7 A. Existing Adjacent Uses J COMMENTS Area is encircled by large commercial timber holding as well as large agricultural land heldings Furthers СОНИЕНТВ Area consists of small developed parcels development inland oppours impraitical due to the ownership patterns of the adjacent Area Consists of terrain and large 传播的 CONCLUSION : CONCLUSION wacticable:

W YES

O NO

the area physically developed or built upon to instinction the control of the control D ATT is the area generally D YES □но D YES 2. Neighborhood and Regional Characte Do general neighborhood a characteristics contribut conclusion that the committee?? □ NO ,... Adjacent Uses includes all u

TO SECOND THE STATE OF THE SECOND STATE OF THE

0 and Bervices □5-10 acres □10-20 acres more than 20 acres Is public sever generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: Is the subject area within a fire protection district? . DYES []20-40 acres E) NO Mmore than 40 scres COMMENTS COHHENTS CONCLUSION DYES DO NO Parcel Size and Ownership Patterns. DNO The parcel size and ownership pattern of the <u>subject</u> area is predominately: 5. Deelling Unit Density The existing dwelling unit density of the subject is predominantly: 101 du per 2 seres or less O. BUILT OR COMMITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA 1 du per 10 acres or more Description Township 25, Ronge II, Section 04106 3. Study Area F-2 C. Acreage 10 ocres A. Existing Adjacent Uses 4 ■ Generally Developed; or; Ocnorally Undeveloped COMMENTS Area consists of small de to the Allegany Road Does, the predominant dwelling unit density of area contribute to a conclusion that the ere practicable?

□ YES

□ NO No. Based upon a careful consideration of the information base toutlined above, it is concluded that the subject area is:

| Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025.
| Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. D HO.

MENT TO A CONTRACT OF THE PARTY
OTHER RELEVANT PACTORS CONTRIBUTING TO COMMITMENT 3. Public Pacifities and Fervices * Engirelement Is the subject area generally surrounded on 3 or more sides by: D YES DH0 other "built or committed . areas", or D YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? Is the subject area within a fire protection district? COMMENTS Area is surreunded by large commercial timber holdings as **™** NO will as small wouldn't porcels. Further development inland COMMENTS Supports impractical due to the terrain and ownership potterns of the adjacent properties. The Millicome River surrounds the area on three sides. CONCLUSION Do available public facilities and service conclusion that the area is "committed"? MAES MYES Neighborhood and Regional Characteristics DNO 4. Parcel Size and Ownership Patterns D 100 Miloss than 5 acres □5-10 acres 10-20 acres □10-20 acres (□20-40 acres : CONCLUSION D NO ULTIHATE CONCLUSION . ☐ Irrevucably committed to an extent the standards of OAR 660-04-025. ☐ Physically developed or built upon that satisfies the standards of OAR Dwelling Unit Density C 101 du per 2 acres or less

THE RESIDENCE OF THE PROPERTY
TAKEN TO THE TOTAL AND THE PROPERTY OF THE PARTY OF THE P BUILT OR COMMITTED LANDS HORK-BREET DESCRIPTION OF AREA E YES A. Description Township 25, Range II, Section 05, DNO Soft Single other built or committed ". areas", or "natural boundaries or other buffers separating the exception area from adjacent resource land"? B. V Study Ares F-3 ... C. Acreage 47 acres A. Existing Adjacent Uses 1. :, Generally Developed; or COMMENTS Grantally Undeveloped Area is surrounded by large communical timber holdings COMMENTE well as the Millicema River, Area consists of the town of Allegany and small surrounding developed tax lots. Development occurs adjacent to the Allegany Rond. CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 ox 4 impracticable? ₩ YES CONCLUSION Is the area-generally "encircled"? DNO E YES Neighborhood and Regional Characteristics Do general neighborhood THE RESERVE THE PARTY OF THE PA 1 Public Pacilities and Services []5-10 acres : Is public water generally available to the subject area? D YES □10-20 acres Dmore than 20 acres . Is public sever generally available to the subject area? . □ ¥ES Is the subject area within a fire protection district? e B no □10-20 acres ... TOYES 20-40 acres . D NO СОННЕНТЕ CONNENTS CONCLUSION

Do available public facilities and service conclusion that the area is "committed"? CONCLUSION . DID Ø YES · Пио The parcel size and ownership pattern of the <u>subject</u> area is predominately: 5. Dwelling Unit Density The existing dwelling unit density is predominantly: 121 du per 2 acres or less

THE RESERVE THE PROPERTY OF TH

0 Description Township 25, Range II, Section . IY 付 🔲 1 du per 10 acres or more B. Study Area F-4 C. Acres A. Existing Adjacent Uses J S Generally Developed; or Generally Undeveloped COMMENTS Area consists of small developed parcels located adjacent to the Allegony Read, CONCLUSION . CONCLUSION . D 110 ULTIHATE CONCLUSION YES. Based upon a careful consideration of the information base outlined above, it is concluded that the subject area in: D HO graphy i sand Trevocably committed to an extent that satisfies the standards of OAR 660-04-025. X YES DNO \circ TYES Is the subject area generally surrounded on 3 or more sides by: M YES i. other "built or committed areas", or ii. *natural boundaries or other buffers separating the exception area from adjacent resource land?? ₩О , DYES COMMENTS X NO currounded by large commercial timbe CONHENTS 66 the Millicoma River The River Spri three sides Heighborhood and Regional Characteristics 4. Parcel Size and Ownership Patterns Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

Superinter of the Contract from the mine 1 du per 5 acres 10-20 acres Generally, the area includes very small distinguish parcels The exception is Tax left 2000 which has been included linguished Dmore than 20 acres The parcel size and ownership pattern of the adjacent aurrounding area is predominantly: exception is Tax left 2000 which has been included into the committed area because: 1) Currently their is a deadling on ?!

3) It is surrounded by large timble hillings on one side

2) It is surrounded by the committed on two sides

4) It is surrounded by the Milkery.

m the fourth side. | | | 10-20 acres || 20-40 acres Mmore than 40 acres CONCLUSION CONHENTS Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? □ NO ULTIHATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: CONCLUBION ☑ Irrevocably committed to an extent that matisfies the standards of OAR 660-D4-D25. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. NO NO 15. Delling Unit Density The existing dwelling unit density of the subject area. ⊠1 du per 2 acres or less 19.419. \bigcirc OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

DESCRIPTION OF AREA

A. Description Township 25, Range II, Section 28

B. \ Study Area F-5

METTAGE

A. Existing Adjacent Uses -

Generally Developed; or

Generally Undeveloped

COMMI NTS Area consists of a small development located adjacent to the South Fork of the Cros River.

CONC JUSTON

Do existing adjacent uses make uses allrued by LCDC Goal 3 or 4 impracticible?

Z. YES

[] HO

Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard?

D) YES

f 1110

NOTE: "Existing Adjacent Uses" includes all uses in the object area described in 1. above.

1. Encirclement

X YES

Is the subject area generally surrounded on 3 or more sides by:

DNO

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

Area is surrounded by the South Fack of Coss. River as South Cos River NKT. Co. Road. The existing rough terra also precludes this area from any future inland developments

CONCLUSION

Is the area generally "encircled"?

X YES

DHO

2. Neighborhood and Regional Characteristics

Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

· D HO

Commence of the second
35-30 Atzes ښېوپور د کې وروا د د د مېښواوي د د واله د د والوسوسواوي Dmore than 20 acres Is public sewer generally available to the subject area? AL D ARR . 🖾 но 10-20 acres □20-40 acres M NO Mmore than 40 acres CONCLUSION CONCLUSION MYES. DNO 7 The parcel size and ownership pattern of the subject 5. Dwelling Unit Density . ≥ 1ess than 5 acres

BUILT OR CONNITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA A. Description Township 26, Range II, Section 31 Study Area F-6 11. INFORMATION BASE A. Existing Adjacent Uses D Generally Developed; or Generally Undeveloped COMMENTS

Area Consists of a small development located

the South Fork Cool River Road. CONCLUSTON ers. YES WYES TO YES ULTIMATE CONCLUSION DNO C 20 YES

3: Public Facilities and Services OTBER RILEVANT FACTORS CONTRIBUTING TO COMMITMENT Is public vater generally to the subject area? N YES DHO other "built or committed areas", or is public sever generally evailable to the subject area? iii "natural boundaries or other buffers separating the exception, area from adjacent resource land"? M NO DYES Aren. is surrounded by the South Fork of Goos River, The existing rough herein as well as the large commercial ⊠ но timber haldings precludes inland development from occurring in the orea. CONCLUSION NO 💀 ZYES. DHO .. He ighborhood . Parcel Size and Ownership Patterns The parcel size and ownership pattern of area is predominately: ≥. П но Dless than 5 acres 7 □ 10-20 acres CONHENTS | more than 20 acres
The parcel size and ownership pattern of the adjacent
surrounding area is predominantly;

| 10-20 acres|
| 30-46 acres|
| Spore than 40 acres| CONCLUSION N YES □ но ° ∞ 5.44 Dwelling Unit Density The existing dwelling unit density of is predominantly:

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OTHER RELEVANT FACTORS CONTREBUTING TO CONNETNENT BUILT OR COMMITTED LANDS WORK-BREET • . 1. Incirclement E YES Is the subject area generally surround on 3 or more sides by: DESCRIPTION OF AREA Description Township 26, Range 12, Section 04,05,06, 107 DHO other built or o B. Study Area 6.1 "natural boundaries or other buffers separating the exception area from adjacent resource land"? C. Acrege 300 airs Existing Adjacent Uses 17 Generally Developed; or ; COMMENTS Area is surrounded on three areas by oth Generally Undeveloped COMMENTE Area consists of parcels appresimately source in size which are for the most part developed to residential uses.

Development occurs generally adjacent to kentrek Co. Rond. ... CONCLUSION YES д д Пио, M YES Heighborhood and Regional Characteristics Do general neighborhood's characteristics contribut D 100 THE WAR THE THE PARTY OF THE PA \$5-10 acres Public Facilities and Bervices Is public water generally to the subject area? Ŷ □ YES □10-20 acres Diore than 20 scres The parcel size and ownership surrounding area is predominate O YES is the subject area projection district? 5 ⊠ NO □10-20 +cres / M20-40 acres N YES □#0 : CONHENTS ... CONNENTS M YES DYES DHO ... and Ownership Patterns The parcel size and ownership pattern of the subject area is predominately: Dwelling Unit Density The existing duelling unit Di du per 2 acres or less

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AND RECORD TO THE PROPERTY OF $C_{\mathcal{I}}$ BUILT OR CONNITTED LANDS MORK-SHEET 231 de per 5 acres Description Township 25, Range 12, Section 19,20, 29, 1 31 Mine Dl. do per 10 acres or Сомивите 3. Study Area 6-2 C. Acreage Existing Adjacent Daes 1 Generally Undeveloped COMMENTS Area Consists of generally developed pareeds located adjacent Cons River Tidelands. Benefit are for the most part quita small and do have duttings on them. The area incorpor five different subdivisions all of which are developed . Mike Ropp has preposed that a pertion of this arm which is within the case Bry Estury transport Plan to be committed.

but it does but meed the findings of OAR 660-04-005. : 🗷 YES DNO ! CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? SUTTINATE CONCLUSION based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

Irrevocably committed to an extent that satisfies the standards of OAR \$60-04-025.

Physically developed or built upon to an extent that satisfies the standards of OAR \$60-04-025. D YES • DNO . Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? **₩** YES and Salah The transmitted with the second secon Public Facilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT ls public water generally available to the subject area? 1.5 Encirclement ls the subject area generally surrounded on 3 or more sides by: i. Other "built or committed areas", or N DE YES DNO ii natural boundaries or other buffers separating the buffers separating the buffers separating the buffers adjacent perouros land 7 MO NO PASS Is the subject area within a fi COMMENTS E NO Will some cit CONHENTS ... CONCINSION "encircled"? AS ASE # □ **w**o 4. Parcel Size and Ownership Patterns Do general neighborhood characteristics contribution conclusion that the area "conmitted". The percel size and ownership pattern of erea is predominately: Diess than 5 acres

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□ .=10 seres D10-20 acres . Onore than 20 acres The parcel size and ownership pattern of the adjacent aurrounding area is predominantly: D10-20 acres □20-40 acres Emore than 40 acres СОНИЕНТЕ CONCLUSION ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: Physically developed or built upon to an extential satisfies the standards of OAR 660-04-025 ₩ YES ∫ D №0 5. Dwelling Unit Density -The existing dwelling unit density of the subject are is predomina thy: ⊗l du per 2 acres or less The second secon BUILT OR COMMITTED LAWS WORK-SHEET
DESCRIPTION OF AREA OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT . - DYES Description Township 25, Range 12, Section 23, 26, 27, 24, 29 B. Study Area 6-3
City Acres O acres Committee
INFORMATION BASE "natural boundaries buffers separating exception area from resource land"? Existing Adjacent Dasa

Generally Developed; or Generally Undeveloped CONHENTS

Are consists of relatively underdoped parcels adjusted to a consist of relatively underdoped parcels adjusted to a constitution of the proposed by this cup to be committed but does not read the requirements of MR relation of the committed. COHHENTS . existing edjacent uses make uses allowed racticable? Dres D WES

Atherare physically developed or built op attailes the OAR 660-04-025 standard? 25 Helghborhood and M HO HOTE: "Existing Adjacent Uses" includes all use ubject area-described in I. above.

The second section of the section of the second section of the second section of

場がは 3. Public Facilities and Services □5-10 acres Is public water generally available to the subject area? TEE 5010-20 acres M NO Dwore than 20 acres Is public sever generally available to the subject area? D YES The parcel size and ownership pattern of the adjacent surrounding area is predominantly: □10-20 acres DAER Is the subject area within a fire protection district? D20-40 acres DK NO Monore than 40 acres COHHERTS COMMENTS CONCLUSION Do available public facilities and services contribute to a conclusion that the area is "committed"? Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in a relation to the lands' actual use, contribute to a conclusion that the area is 'committed'? THE DYES _ № D YES Parcel Size and Ownership Patterns . oif the subject 5. Dwelling Unit Density Dless than 5 acres The existing duelling unit density of the subject area is predominantly: D1 du per 2 scres or less

THE WALL TO THE STATE OF THE ST

QBUILT OR CONHITTED LANDS WORK-BREET N □ | do per 5 ecres | I. DESCRIPTION OF AREA 101 du per 10 acres or more COMMENTS B. Study Area 6-4 CONCLUSION ypose the predominant dwelling unit density of the area contribute to a conclusion that the area is 4. . ⊠ HO ULTINATE CONCLUSION E YES Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: □но Trevocably committed norm extent that satisfies the standards of OAR 660-04-025. YES

THE RELEASE AND A CONTRACT OF THE PROPERTY OF

THE PARTY WE WANTED TO THE PARTY OF THE PART

A. Description Township 25, Range 12, Section 26,27, TV, 135 C Acreage 292 acres A. - Existing Adjacent Uses J B Generally Developed; or Generally Undeveloped COMMENTS

Are consists of parels approximately size which are for the most part purposets Small ownerships of resource links Burrayed to The Let 200 leveled in Section 270 has a property owner and the included withing the to its Summy like Characteristics. CONCLUSION Do existing adjacent uses make uses allowed by LCDC impracticable? is the area physically developed or built upon it satisfies the DAR 660-04-025 standard?

NOTE: "Existing Adjacent Uses" includes all subject area described in I. above.

Public Pacilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO CONNITHENT YES. is public vater generally to the subject area? Is the subject area generally surrounded on 3 or more sides by: MD NO . Вио other "built or committed T YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? **(2)** но DYES. Is the subject area within a fire protection district? COMMENTS Area is surrounded by the Coop River Tidelands and D) NO COMMENTS CONCLUSION Do available public facilities and services contribute to conclusion that the area is "conmitted"? YES MYES D №0 2. Neichborhood and Regional Characteristics The parcel size and ownership patterarea is predominately: ___ □ no : Dless than 5 acres Ø5-10 acres © | 10-20 acres D1 do per 10 acres or CONHENTS The parcel size and ownership pattern of the adjacent surrounding area is predominantly: - 15010-20 acres P. ()20-40 *cres () () more than CONCLUSION YES ... □ NO ULTIMATE CONCLUSION CONCLUSION . ₩ YES

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DHO

Dwelling Unit Density &

1 01 du per 2 acres or less

The existing dwalling unit density of the subject is predominantly:

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 \bigcirc B. OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITMENT BUILT OR CONHITTED LANDS WORK-SHEET Encirclement DESCRIPTION OF AREA M YES Is the subject area generally surrounded on 3 or more sides by: A. Description Township 26, Range 13, Section 01,02,112 DNO B. V Brudy Area H-I "natural boundaries or other abufers separating the exception area from adjacent resource land"? 390 acres; 378 ocres committed C. ACTERACE A. Existing Adjacent Uses Generally Developed; or COMMENTS surrounded on the West and South by Cook Bay (6) and to the South east by another committed drea. The COMMENTS

Area consists of printively small parcels which are developed to recidential uses. Glasgow subdivision is included in the also a committed area to the North of the subject Percel located Section OLC. IT 2000 has been proposed by nike Rupp for commitment. The 12 aim percel does not how a dualling on it and does not next the requirements of OAR 660-04-055.

for commitment. Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? CONCLUSION CONCLUSION N YES the area generally "encircled"? D YES Reighborhood and Regional Characteristics D YES Оно Пис Do general neighborhood and characteristics contribute **能到的**。 D NO NOTE: "Existing Adjacent Dees" includes all ibject area described in I. above. THE THE STREET S Public Pacilities and Services D5-10 acres TO TES Is public water generally available to the subject area? 10-20 acres . is public sever generally available to the subject area? TES . □10-20 acres Is the subject area within a fire protection district? □20-40 acres : Д □ но CONCLUSION CONCLUSION Does the parcel siz and adjacent surrou relation to the lar area is . ₩ Dyss (ig □no. D NO ... 5. Dwelling Unit Density The existing dwelling unit density is predominantly: Dless than 5 scres 21 du per 2 acres or less

the control of the state of the

7.5 0 0 D3-10 acres Di du per i acres Deore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: D10-20 scres ₩20-40 acres Dnore than 40 acres COMMENTS CONCLUSION Does the predominant dwelling unit density of the subject.

ares contribute to a conclusion that the area is "conmitted" □ NO 111. DITIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: CONCLUSION 2 D YES The existing dwelling unit density of the subject as is predominantly: 201 du per 2 acres or less

OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITMENT BUILT OR COMMITTED LANDS WORK-SHEET 1. Encirclement I. DESCRIPTION OF AREA Is the subject area generally surrounded on 3 or more sides by: A. Description Township 26, R.12, Section 18 4 19 other "built or committed areas", or C. Acresc 370 ii. "natural boundaries or other buffers separating the exception area from adjacent resource land 7 COMMENTS surrounded; by a committed area to Commercial and Industrial areas to the Well CONCLUSION

Do existing adjacent uses impracticable? CONCLUSION S YES the area physically developed or built upon to the satisfies the OAR 660-04-025 standard? □NO Is the area physically developed or ourse of the setisfies the OAR 660-04-025 standard? 2. Neighborhood and Regional Characteristics Ø YES " □ **n**o Do general neighborhood and characteristics contribute conclusion that the area is "committed"? 0

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ls public sure: procedly evailable to the subject area? The series also and removality surfaces of the appropries. DO NO 2010-20 acres Is the subject area within a fire protection district? DNO 120-40 acres COMMENTS Cogville REPD CONCLUSION CONCLUSION . □yts 1 - DONO Parcel Size and Ownership Patterns aay ⊗ The parcel size and ownership pattern of the subject DNO 5. Delling Unit Density Dless than 5 acres The existing dwelling unit density of is predominantly: D1 du per 2 acres or less 0 I. DESCRIPTION OF AREA Description Township 25, Range 12, Section 19 Armage 130 acres 11. INFORMATION BASE A. Existing Adjacent Uses Generally Developed; or Generally Undeveloped Comments
Area consists of an eventing pulled subdivision after 1935 which precently has developed lets in CONCLUSION S WYES D #0 ULTINATE CONCLUSION med upon a careful consideration of the information base timed above, it is concluded that the subject area is:

| Irrevocably committed to an extent that satisfies the standards of OAR \$60-04-025. TA:YES " □но Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. ☐ YES □но

DIVIEW REPEAYER LYCLOSIS CONTRIBUTING TO COMMITMENT TO Bestraption Tourisiup III, Longe 12, Section 25 DNO other "built or committed areas", or B. . Brudy Area S-1 Acres 25 256 3650 ii. "materal:hummdarias:or:other-The Community territored course Samtisternit 11. Asserta Area consists in small demaped parely negocial to its. City of Cognille's Urban Growth Boundary. Paralle are generally less than 5 acres in size and here dwellings on them to existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ED YES CONCLUSION is the area generally "encircled"? D¥0 E YES Heighborhood and Regional Characteristics Do general neighborhood and rec characteristics contribute to a conclusion that the area is '.' "committed"? ALL COMPLETE CONTROL OF THE PROPERTY OF THE PR AND THE RESIDENCE OF THE PROPERTY OF THE PROPE and Bervices - D5-10 acres D YES Is public water generally available to the subject area? 10-20 acres Ø NO Dmore than 20 acres is public sever generally available to the subject area? D YES The parcel size and ownership patt surrounding area is predominantly: M NO (\$)10-20 acres is the subject area within a fire protection district? MYES. - | 20-40 acres ָם אָפֿייָ פֿאָנָם: I TANK COHNENTS Coquille RFPD public facilities and service at the area is committed? CONCLUSION CONCLUSION Do sveilable p ?}∵DYE5 ". ВЭмо - Ø YES Пио Parcel Size and Ownership Patterns' 5. Dwelling Unit Density Dies than S acres The existing dwelling unit density of the is predominantly:

D1 du per 2 scres or less

11. 本种的大学性的特别 0 BUILT OR COMMITTED LANDS WORK-SHEET 1 du per 5 acres I. DESCRIPTION OF AREA Description Township 26, Range 12, Section 00,07, 1'0' □1 du per 10 acres or more CONHERTS Study Area 5-2 C Actroge 3 305 acres Existing Adjacent Uses -Generally Undeveloped Area consists of small developed parcels located adjoined to the city of Congresse. CONCLUSION Does the predominant duelling unit density of the subject area contribute to a conclusion that the area is "committed"? (1. ₩ YES ____ **□ #**0 CONCLUSION Do existing adjacent impracticable? uses make uses allowed by LCDC Goal 3 or 4' ULTIMATE CONCLUSION M YES D NO ☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. Is the area physically developed or built spon to the it satisfies the OAR 660-04-025 standard? X YES . Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. D NO

March 19 3. Public Facilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Is public water generally available to the subject area? 2 1 Encirclement , **25** Am Is the subject area generally surrounded on 3 or more sides by: Ø ×0 D110 i. other built or committed areas, or is public sever generally and to the subject area? D YES il. "natural boundaries or other buffers separating the exception area from adjacent resource land"? D NO A MAKE ! is the subject area within protection district? COMMENTS wed by the city of English to the Worth ∵ □но ॢ COHMENTS Coquille RFPD i and the the south CONCLUSTON. CONCLUBION encircled",7 is the area DYES D YES -4. Parcel Size and Denership Patterns Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committee"? N YES The parcel size and ownership pattern area is predominately: **□** ₩0 Dless than 5 acres

3.55 E.

10-20 acres Is the subject area within a fire protection district? DYES. □20-40 acres 🖾 но Minore than 40 acres COMMENTS COMMENTS CONCLUSION Д № О Паев ОкО 4. Parcel Size and Ownership Patterns 5. Dwelling Unit Density The existing dwelling unit density is predominantly: MANAGEMENT OF THE PARTY (·) Description Township 25, Range II, Section 12,113' 1. D1 du per 10 acres or more II. INFORMATION BASE .5 Senerally Developed; or Generally Undeveloped CONHENTS Done Area includes Dome CONCLUSION D AEB D AER D above, it is concluded that the subject are the standards of OAR 660-04-025. the area physically developed or built satisfies the OAR 660-04-025 standard? YES _ YES

THE RESERVE WAS ASSESSED TO THE RESERVE OF THE PARTY OF T

Public - acilitics and Estrices ... COTTEMBREDET OF SCHOOL CONTRIBUTION D YES . DYES D HO , gono other "built or committed areas", or D YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? COHHERTS D) NO COMMENTS CONCLUSION TYES . NO NO Neighborhood and Regional Characteristics Do general neighborhood and regional characteristics contribute to a DO YES The parcel size and ownership pattern of the subject D NO E) less than 5 acres A STATE OF THE PERSON OF THE P 0 , D5-10 scres 7 D10-20 seres Dmore than 40 acres CONHERTS □ NO ULTINATE CONCLUSION . 7 Based upon a careful consideration outlined above; it is concluded to ☐ Irrevocably committed to an exte the standards of OAR 660-04-025. Physically developed or that satisfies the standa M YES

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D10-20 acres 1 du per 10 acres or more Dmore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly; \$310-20 acres 20-40 acres Omore than 40 acres CONCLUSION COMMENTS ' Z YES D no ULTIMATE CONCLUSION DOCTION OF E investmently minimated an event Physically developed or built upon to an extent that satisfies the standards of OAR 560-D4-025. D YES D×O 5.3. Dwelling Unit Density The existing dwelling unit density is predominantly: The second secon Maria Cara OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT BUILT OR COMMITTED LANDS WORK-BREET 1. DESCRIPTION OF AREA the subject area generally surro A. Description Township 24, Range II, Section 03, +04 DARE other "built or committed areas", or B. Study Area R-1
ALTERAC 32
III. INFORMATION BASE ii. *natural boundaries buffers meparating exception area from resource land*7 32 acres And Existing Adjacent Uses D Generally Developed of Generally Undeveloped of COMMENTS COMMENTS Are consists of feel dischard in size located adjusted to the CONCLUSION Do existing adjacent impracticable? CONCLUSION М уев Is the erea generally "encircled"? Y D YES YES - Reighborhood and 3 · □ NO YES YES Do general neighborhood and characteristics contribute to conclusion that the area is "committed"? apove,

CAUTA OF MALES

OTHER DIED HIT I GOT Public-Incilitrem and Services 1. 1. Encirclement subject area generally surrounded more sides by: DYES , Боно other "built or committed areas", or Is public sever generally available to the subject area? "natural boundaries or other buffers separating the exception area from adjacent resource land"? Z NO Is the subject area within a fire protection district? DYES CONHENTS Ø NO COMMENTS CONCLUSION CONCLUBION Do available public facilities and services conclusion that the area is "committed"? DYES. DNO D) NO 2. Neighborhood and Regional Characteristics Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committee"? Parcel Size and Ownership Patterns The parcel size and ownership pattern of area is predominately: E) less than 5 acres 0 5.1. 7 10 S-10 scree (D10-20 scres Dmore than 20 scres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: D10-20 acres ₩20-40 acres CONCLUSION CONNENTS " D NO. ULTIHATE CONCLUSION Based upon a careful consideration of the information base outlined above; it is concluded that the subject area is: CONCLUSION TO Irrevocably committed to an extent that satisfie the standards of OAR 660-04-025. $A(\overline{S},\overline{Q})$ E YES . Dwelling Unit Density . The existing dwelling unit density of the is predominantly:

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BUILT OR COMMITTED LANDS HORE-SHEET and the second Is the subject area generally surrounded on 3 or more sides by: DESCRIPTION OF AREA DYES A. Description Township 27, Range 14, Section 17,20,21, 24,24 Вио other "built or committed areas", or B. Study Ares Q-2 "natural boundaries or other buffers separating the exception area from adjacent resource land"? C. Acresse 770 acres; 725 committed Existing Adjacent Uses 3 COMMENTS Oenerally Undeveloped CONHENTS PHYRENTS

Area consists of small disabout parts located along Seven
Devils Highway Subdivision which are developed are included in the are CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? YES is the area generally "encircled"? , c. DHO D YES Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? i Bono -025 *----YES YES Neighborhood and Regional Characteristics □ NO Do general neighborhood and characteristics contribute t conclusion that the area is "compitted"? ☐ YES "Existing Adjacent Uses" includes all uses in the rea described in I. above. The state of the s W. 學學學 3. Public Facilities and Bervices () Q.□5-10 acres YES . ls public water generally available to the subject area? 10-20 acres Is public sever generally available to the subject area? Daore than 20 acres E D YES The parcel size and ownership pattern of the adjacent; surrounding area is predominantly: **№**.но 20 acres -Ŋ YES Is the subject area within a fire protection district? □но 1 D20-40 acres more than 40 acres COMMENTS Bonton REPO COMMENTS CONCLUSION CONCLUSION Do available public facilities and services conclusion that the area is 'committed'? Does the parcel size and ownership pattern and adjacent surrounding area, when considerelation to the lands' actual use, contrib that the area is "committed"? ₩ YES Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>aubject</u> area is precominately: □но 57 Dwelling Unit Density The existing dwelling unit density of the subject a is precommantly:

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OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

BUILT OR COMMITTED LANDS WORK-SHEET 1. DESCRIPTION OF AREA A. Description Taunship 27, Range 14, Godien 22 424 1 du per 10 scres or more B. Study Area Q-3 Subdivision parcels are generally less than two acres while C. Acrenge 235 nems surrecteding committed parties are about 8 aims in size, A. Existing Adjacent Daes 1 Generally Developed; or Generally Undereloped COMMENTS Area commists of three diviliped areas, one of which is a developed subdivision adjacent to U.S. Highway 101. Parelly . CONCLUSION are generally 5 cens in clar Acr lega Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? D NO CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: BYES . ☑ Irrevocably committed to an extent that matisfies the standards of OAR 660-04-023. Is the area physically developed or built upon to the it satisfies the OAR 660-04-025 standard? N YES D NO 3. Public Facilities and Services B. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Is public water generally to the subject area? 1. Encirclement Is the subject area generally surrounded on 3 or more sides by: T TYES MO MO 00 NO i. other "built or committed TYES .. il. *natural boundaries is the subject area of protection district? CONNENTS □ NO CONHENTS : BonJan RFPO. J. 38 46. CONCLUSION CONCLUSION Do available public facilities conclusion that the area is "c В но Так 40.75 2. <u>Heighbo</u> Heighborhood and Regional Characteristics Do general neighborhood and characteristics contribute conclusion that the area is committed? 4. Parcel Size and Ownership Patterns The parcel size and ownership patte area is predominately: **没多没□**∞ ⊠less than 5 acres

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Reserve Assertings of 12:17-2 \bigcirc Public Pacilities and Services D YES D10-20 acres more than 20 acres le public sewer generally available to the subject area? The percel size and ownership pattern of the adjacent surrounding area is predominantly: В но 2010-20 acres Is the subject area within a fire protection district? YES □20-40 acres Dmore than 40 acres COHHENTS Coquille REPD COMMENTS CONCLUSION CONCLUSION . ⊠no Parcel Size and Ownership Patterns . DNO bwelling Unit Density THE RESERVE THE PROPERTY OF TH THE PROPERTY OF BUILT OR CONHITTED LANDS HORK-SHEET D1 du per 5 acres 1. DESCRIPTION OF AREA Description Trunship 27, Range 14, Section 05 D1 du per 10 acres or more B. Brudy Ares G-1 COMMENTS 13 acres Acreose II. INFORMATION BASE A. Existing Adjacent Uses J

Somerally Developed; or Generally Undeveloped Area consists of parels has adjaced to the Parific Decon CONCLUSION recidential uses CONCLUSION . . (∑ YES _ DHO ☑ Irrevocably committed to an extent that a the standards of OAR 660-04-025. M YES

NOTE: "txirting Adjacent Uses" includes all uses in the subject area described in I. above.

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0 3. Public Facilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Is public water generally available to the subject area? YES 1. Encirclement Is the subject area generally surrounded on 3 or more sides by: D YEB Ø NO Is public sever generally available to the subject area? T YES ii. "natural boundaries or other buffers separating the exception area from adjacent resource land"? D NO Is the subject area within a fire protection district? X YES COMMENTS D NO COMMENTS Bardon RFPD, CONCLUSION CONCLUSION Is the area generally "encircled"? Do available public facilities and services contribute to a conclusion that the area is "committed"? D YES TYES 2. Neighborhood and Regional Characteristics ₩ NO Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? 4. Parcel Size and Ownership Patterns X YES The parcel size and ownership pattern of the subject area is predominately: Øless than 5 acres All the second of the second o \odot □5-10 acres []) do per 5 acres □10-20 *cre* D1 du per 10 acres or more Dmore than 20 acres COMMENTS The parcel size and ownership pattern of the adjacent surrounding area is predominantly: 2010-20 acres . □20-40 acres COMMENTS N YES D NO ULTIMATE CONCLUSION Based upon a careful consideration of th outlined above, it is concluded that the CONCLUSION Dirrevocably committed to an extended of OAR 660-04-025.

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P) Physically developed or built upon that satisfies the standards of OAR

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St.: Dwelling Unit Density to

21 du per 2 acres or less

DE LEMENT DE LE CONTROL POR LA CONTROL PARTIE PARTIE DE RECOIDE DE LA CONTROL DE LA CO

BUILT OR COMMITTED LANDS WORK-SHEET 1. DESCRIPTION OF AREA 1 du per 10 acres or more A. Description Township 27, Range 13, Section 20, 31,33 B. Rtudy Area P. C CONHENTE 11. INFORMATION BASE A. Existing Adjacent Baos 3 D Generally Developed; or Generally Undeveloped COMMENTS MHENTS
Area consists of developed parcels generally less than
5 acres in size located adjusted to the Copulle River; T A persion of Tay Let Tel in Section 30 has been included in the committed are dur to the existing terrain and interestibility to go livestack.

The Lets tococco, 1200, and 1200 trended in Section 33 have been preprieted by Mick Repp for examplement but no mat meet the treatments of AR 660-04-025 for commitment.

CONCLUSION Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? D HO Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? DITIMATE CONCLUSION YES YES Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: □ NO ls the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. W YES □ HO J NOTE: "Existing Adjacent Uses" includes all unes subject area described in I. above. ARIAN CONTRACTOR CONTR Agi. A PART TO Public Facilities and Services B. OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITMENT 1. Encirclement Gay [Is the subject area generally surrounded on 3 or more sides by: Вио i. other "built or committed areas", or Is public sewer generally available to the subject area? ii. *natural boundaries or other buffers separating the exception area from adjacent resource land*7 Ø NO Is the subject area within a fire ;;) 2 YES COMMENTS DNO COMMENTS Copilite ECPD. CONCLUSION CONCLUSION is the area generally "encircled"? Do available public facilities and services contribute conclusion that the area is "committed"? [] YES D) NO DINO 2. Reighborhood and Regional Characteristics 4. Parcel Size and Ownership Patterns Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? The parcel size and ownership pattern of the <u>subject</u> area is predominately: Dless than 5 acres

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DS-30 emes 10-20 acres [] du per 10 agrae or ent CONHENTS Dmore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: □10-20 acres 20-40 acres inore than 40 acres CONCLUSION COMMENTS. Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed" M VES סא 🖸 DITIHATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"? Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. DHO 0 5. Dwelling Unit Density The existing dvelling unit density of the subject area is predominantly: ⊠l du per 2 acres or less THE RESERVE OF THE PROPERTY OF More than the second of the se 4.5 BUILT OR COMMITTED LANDS WORK-SHEET OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT D ASS is the subject area generally surrounded on 3 or more sides by: I. DESCRIPTION OF AREA A. Description Township 27, Range 15, Section 34,35,426 • . [5] но other "built or committed areas", or B. Study Area P-C ii. "natural boundaries or other buffers separating the exception area from adjacent resource land"? C. Acres 140 acres I. INFORMATION BASE

A. Existing Adjacent Uses

Generally Developed; or

Generally Undeveloped 11. INFORMATION BASE COMMENTS COMMENTS Comments
Area consists of developed small percels tocated adjacent Tay Let 900 located in Section 36 has been proposed by inite e.p. for commitment. The county has zened this hard served ETV-10 as it does, but must the requirements of and the CONCLUSION CONCLUSION

Do existing adjacent uses make uses allowed by LCC Goal 3 or 4 impracticable? CONCLUSION in practicable?

D vs.

D NO

The statistics the OAR 660-01-023 standard? 'Is the area generally DYES CALL . В но ∵ 2. Heighborhood and Regional Characteristics MYES [2] YES Do general neighborhood and characteristics contribute conclusion that the area is "committed"? 7. j. k ∯ Deo ₩0 ²³%

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3. Public Facilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT DYES Ø NO ⊠но Is public sever generally available to the subject area? other "built or committed areas", or T YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? Is the subject area within a fire protection district? X YES CONHENTS □ NO COMMENTS Green Acres REPD. CONCLUSION CONCLUSION Do available public facilities and services conclusion that the area is "committed"? DYES Вио 2. Neighborhood and Regional Characteristics Do general neighborhood and recharacteristics contribute to conclusion that the area is "committed"? 4. Parcel Size and Ownership Patterns X YES The parcel size and ownership pattern area is predominately: THE RESIDENCE OF THE RESIDENCE OF THE PROPERTY A CONTRACTOR OF THE PROPERTY OF THE PARTY OF □ 5-10 scres | more than 20 acres . []10-20 acres ⊠20-40 acres COMMENTS M YES о но , √ TIL. . DITTHATE CONCLUSION CONCLUBION Trevocably committed to an extension the standards of OAR 66D-D4-D25. Physically developed or built upon to an e that satisfies the standards of OAR 660-D4 YES. Dwelling Unit Density Ö The existing dwelling unit density is predominantly: Di du per 2 acres or less A CONTRACTOR OF THE PROPERTY O

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT BUILT OR CONHITTED LANDS MORK-SHEET 1. Encirclement 1. DESCRIPTION OF AREA D YES A. Description Township 27, Range 13, Section 20, 21, 22, 27, 29, 430 Юно other "built or committed areas", or B. Study Area P-4 *natural boundaries or other buffers separating the exception ares from adjacent resource land"? Acreage 350 acre6 II. INFORMATION BASE A. Existing Adjacent Uses 1

Generally Developed; or COMMENTS Generally Undeveloped COMMENTS Area consists of developed small parcels located adjuscent to Highway 42 and North Cank Road. Pariets are generally 5 or has acros in size and are for the most part developed to residential uses, Garden Volly Subdivision is included in the ones. CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? CONCLUSION Is the area generally "encircled"? W. □ NO YES ₩ YES Neighborhood and Regional Characteristics □ NO Do general neighborhood and regiona: characteristics contribute to a NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in I. above. A CONTRACTOR OF THE PROPERTY O 是trans 3. Public Facilities and Services

PES Is public w to the subj MS-10 acres □10-20 acres Is public sever generally available to the subject area? he parcel size and ownership pattern of the adjacent urrounding area is predominantly: D YES - E2 ×0 □10-20 acres **₩**YES 'Is the subject area within a fire' protection district? \$20-40 acres . Doore than 40 acres COMMENTS Coquille REPD. COMMENTS . CONCLUSION bo available put Does the parcal size and owner and adjacent aurrounding area relation to the lands' actual that the area is "committed"? YES . □но

5. Dwelling Unit Density

Thurst - I'm

D1 du per 2 acres or less

. The existing dvelling unit density of the is predominently:

(1)

Dless than 5 acres

Ó □10-20 acres more than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: □10-20 acres ₩20-40 acres more than 40 acres - ⊠ YES □ NO ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: Irrevocably committed to an extent that satisfies the standards of OAR 560-04-025. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. orion in the second 7.5. Dwelling Unit Density O The existing dwelling unit density of the subject area. 1 du per 2 acres or less A CONTRACTOR OF THE PROPERTY O OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT BUILT OR CONHITTED LANDS WORK-SHEET 1. DESCRIPTION OF AREA Is the subject area generally surrounded on 3 or more sides by: TYES . A. Description Township 27, Renge 13, Section 02,03,09,110 DHO other "buil, or committed areas", or natural boundaries or other buffers separating the exception area from adjacent resource land? E. Study Ares P-2 C. Acrese 310 acres INFORMATION BASE A. Existing Adjacent Uses Generally Developed or CONHENTS COMMENTS

of developed percels located alfacent to Highway 42,

Area consists of developed percels located alfacent to Highway 42,

A portion of the circa (approximately 210 acres) has been proposed

by NIW Rupp for committee and These area has been some and a on a EPVID by the County and Injust must the regimenous of 1868 (60-04-05 for commitment) CONCLUSION . Is the area generally "encircled"? THE WASH ☐ YES . is the area physically developed or built it satisfies the OAR 660-04-025 standard. 2. Neighborhood and Regional Characteristics

THE RESERVE THE PROPERTY OF THE PARTY OF THE

D YES

Do general neighborhood and regio characteristics contribute to a conclusion that the area is "committed"?

M ALR

and Services Public Facilities D YES Is public water generally available to the subject area? □ 10-20 acres ₩ HO Dmore than 20 acres . 🔲 YES is public sever generally available to the subject area? The percel size and constraint pattern of the adjecent autrounding area is predominantly: DO NO □10-20 acres Is the subject area within a fire protection district? D YES 20-40 acres □ NO Dmore than 40 acres COMMENTS - Green Aures RFPD COMMENTS CONCLUSION CONCLUSION Does the parcel size and ownership patterns of the and adjacent surrounding eres, when considered tog relation to the lands' actual use, contribute to a that the area is "committed"? . ⊠NO 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>subject</u> area is predominately: D HO 5. Dwelling Unit Density The existing dwelling unit density of the is predominently: 一种的**是一种的人的**是是一种的人的。 CONTRACTOR OF THE PROPERTY OF THE PARTY OF T BUILT OR COMMITTED LANDS WORK-SHEET 11.6 I. DESCRIPTION OF AREA A. Description Township 27, Range 13, Section 14 415 D1 du per 10 acres or more CONHENTS B. Study Area P-3 C. Acrenge 30 305 acme A. Existing Adjacent Uses Cenerally Developed; or Generally Undeveloped COMMENTS
Consists of Small developed percels located adjusted
to Beaver Creek Road. Area includes the Beaver Mally
to Beaver which is developed into residential loss.
Subdivision which is developed into CONCLUSION

ULTIMATE CONCLUSION

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025.

Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

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ubject area described in I: above.

CONCLUSION

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□ NO

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BUILT OR CONMITTED LANDS WORK-SHEET

The second of the second secon

DESCRIPTION OF AREA

Ö

- A. . Description Township 27, Range 12, Section 20, 31, 1 32
- B. Study Area 0-4

 C. Acresc 267 acres

 11. INFORMATION BASE

- Existing Adjacent Uses 1
 - Generally Undeveloped

COMMENTS

Area consists of small durhoul purcels as well as larger undendoped pariels which are encircled by the City of Coquille (vibon charlpound). Derhoped porcels are generally lead than 2 acres in disc.

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

D YES

_ D но ·

Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard?

YES

. □ NO

NOTE: "Existing Adjacent Uses" includes all uses in subject area described in I. above.

OTHER RELEVANT FACTORS CONTRIBUTING TO CONKITMENT

YES

Is the subject area generally surrounded on 3 or more sides by:

other built or committed areas, or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

Area is encircul by the City of Coquille,

CONCLUSION

Is the area generally "encircled"?

Neighborhood and Regional Characteristics

YES

Do general neighborhood and regions characteristics contribute to a conclusion that the area is "committed"?

Public Pacilities

O YES

Is public water generally available to the subject area?

The same of the sa

MO NO

Is public sever generally available to the subject area?

12 NO.

T TO YES

COMMENTS

Ze Coquille REPD.

Do available public facilities and ser ponclusion that the area is committed

DAE2

ож⊠

parcel Size and Ownership Patterns

The parcel size and ownership pattern of the subject stee is predominately:

□ 10-20 acres

Dmore than 20 acres

The parcel size and ownership pattern of the adjacent surrounding area is predominantly:

D10-20 acres

1020-40 acres

Dmore than 40 acres

COMMENTS

CONCLUBION T

Does the parcel size and ownership and adjacent surrounding area, when relation to the lands' actual use, that the area is "committed"?

Ø YES

□но

THE RESIDENCE OF THE PARTY OF T

5. Dwelling Unit Density

The existing dwelling unit density of the subject area is predominantly:

 \circ . D1 du per 5 acres Description Township 27, Range 13, Section 01,02 111 CONHENTS Study Area Pol Acrenge \$20 acres Committed 11. INFORMATION BASE Existing Adjacent Uses S Generally Developed; or Generally Undeveloped COMMENTS MHENTS

There consists of developed parents appreciately & asset and it is size surrounding and including the town of Green from CONCLUSION A pertient of the area (26 acres) has been proposed by thise for emmissionent. The orea this been zound seems by the foreing and does not must the requirements of one cooperation for commitment. Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: MYES D NO □ Irrevocably committed to an extent that satisfies
 the standards of OAR 660-04-023. Is the area physically developed or built upon to the extent that it matisfies the OAR 660-04-025 standard? □ 330 0 NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in I. above. OTHER RELEVANT PACTORS CONTRIBUTING TO COMMITMENT Public Facilities and Bervices Is public water generally to the subject area? **Б**ио Is the subject area generally surrounded on 3 or more sides by: DYES ... i. other "bufit or committed areas", or T YES ii. "natural boundaries or other, buffers separating the exception area from adjacent resource land"? DH K Is the subject area within a fire protection district? CONCLUSION Do available public facilities and service conclusion that the area is "committed"? O YES A PONO . DYES Юно 2 Neighborhood and Regional Characteristics

4. Parcel Size and Ownership Patterns

Ness than 5 acres

14.15

Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

CHICA DE LA PROPERTIE DE LA PORTIE DE LA PROPERTIE DE LA PROPERTIE DE LA PROPERTIE DE LA PROPE

. . . .

Public Facilities and Services : ₩ 5-10 acres is public water generally available to the subject area? o Liefolge A 🖸 Yes 🧸 10-20 acres • ом 🙀 но Is public sever wenerally available to the subject area? The percel size and ownership pattern of the adjacent surrounding area is predominantly: ANDYES : OR ED. Is the subject area within a fire protection district? □10-20 acres TO YES □20-40 acres □ NO More than 40 scres COMMENTS Copulle REPD 1,000 CONCLUSION CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclust that the area is 'consisted'? DNO

A Parcel Size and Ownership Patterns

parcel size and ownership pattern

redominately: MYES, THE SERVER The parcel size and ownership pattern of the subject aree is predominately: 5. Dwelling Unit Density less then 5 acres O. D1 du per 2 acres or less The second secon 0 BUILT OR COMMITTED LANDS WORK-SHEET 1. DESCRIPTION OF AREA 121 du per 5 acres A. Description Township 27, Range 12, Section 20, 25, 4 39 B. Study Area 0-3 to acres C. Acres to acres

II. INFORMATION BASE A. Existing Adjacent Dass Existing Adjacent uses—

Senerally Developed; or

Generally Undeveloped COMMENTS

Area consists of small scattered deceloped in CONCLUSION adjacent to the Cognille, Fairness Rouls Parcels and Hess than 5 seres in size and have duellings Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? ates COULT CONCLUSION D NO. myrs ULTIMATE CONCLUSION based upon a careful consideration of the information couldined above, it is concluded that the subject area N YES TE THE STAR Physically developed or built upon it satisfies the OAR 660-04-025 standard? Irrevocably committed to an extended to be extended of DAR-660-04-025. Myrs the standards of OAR-660-04-025.

Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in I. above.

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moult Deillites met bemitee ADMINISTRAÇÃO DE PROPERTADO POR CONTRACTOR DE PROPERTADOS. SI NO 1 □но other "built or committed areas", or Is public sever generally available to the subject area? 'natural boundaries or other buffers separating the exception area from adjacent resource land'7 M NO Is the subject area within a fire protection district? MYES. Area is surrounded by large commencial timber holdings and large agricultural land holdings, Ownership patterns in the area make it improvised for fature development to occur on □ NO COHMENTS Copuille RFPD. the adjacent resource lands. CONCLUSION _ is the area generally "encircled"? M YES 2. Neighborhood and Regional Characteristics ⊠ио Parcel Size and Ownership Patterns Do general neighborhood and regional characteristics contribute to a The percel size and ownership pattern of the <u>subject</u> area is predominately: D NO O White the \$ □5-10 acres 0 0 0 0 10-20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: 10-20 acres Mmore than 40 acres COMHENTS , □ NO DITINATE CONCLUSION ... Does the parcel aire and ownership patterns of the and adjacent surrounding area, when considered toy relation to the lands' actual use, contribute to, a that the area is 'committed'? ☑ Irrevocably committed to an external the standards of OAR 660-04-025.

TO YES

Edan Librar share a series () DS-10 acres □10-20 acres Dmore than 20 acres CONHENTE The parcel size and ownership pattern of the adjacent surrounding area is predominantly: 110-20 acres **20-40** acres more than 40 acres COMMENTS CONCLUSION Does the predominant dwelling unit density of the subjected area contribute to a conclusion that the area is "commit M YES D NO ULTIMATE CONCLUSION CONCLUSION Based upon a careful consideration of the information bas outlined above, it is concluded that the subject area is: Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered toge relation to the lands' actual use, contribute to a that the area is 'committed'? ☑ Irrevocably committed to an extent that satisfies
the standards of OAR 660-04-025. M YES Physically developed or built upon to an extent that satisfies the standards of OAR 560-04-025. : DNO . 5. Dwelling Unit Density The existing dwelling unit density of the subject are is predominently: 1 1 du per 2 scres or less Control of the Contro ANTERIOR AL COMPANIE DE LA COMPANIE Principle of the Land of the Continue of the C OTHER RELEVANT FACTORS CONTRIBUTING TO CONNITHENT BUILT OR COMMITTED LANDS WORK-SHEET 1. Encirclement I. DESCRIPTION OF AREA Is the subject area generally surrounded on 3 or more sides by: A. Description Township 27, Range 12, Section 25,26,34, 135 other "built or conmitted areas", or Study Area 02

C. Acrosc 235 acros; 196 committed

11: INFORMATION BASE "natural boundaries or other buffers separating the exception area from adjacent resource land"? COMMENTS

- COMMENTS

 Area consists of generally developed purvels located adjacent to the Coquille, Fairview Road. Occulopment occurs approximately. by mile Southwest of the Town of Fairment
 - Tax Lots 60, 403, and 403 located in Section 30 were proposed by mix Eupp to be committed. These percels have been send 60-10 (Smill Deallot) by the county and do but must the regularizeds of OAR 600-04-055 for commitment.

Reprintments of OAR 660-04-05 for commitment.

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Coal 3 or 4 supportionale?

- T YES
- D ×0

(is the area physically developed or built upon to the it satisfies the DAR 660-04-025 standard?

- M YES
- ДНО

NOTE: "Existing Adjacent Daes" includes all subject area described in I. above.

THE PARTY OF THE PROPERTY OF THE PARTY OF TH

The area in encircled by large. and rough dermin making it impractical for . desclopment inland,

CONCLUSION

- . Is the area generally "encircled"?
 - YES .
 - D NO
- 2. Neighborhood and Regional Characteristics
- YES

Do general neighborhood and theracteristics contribute conclusion that the area is "committed"?

()

THE TAX TO SEE THE TA (\odot) Public Pacilities and Services . MS-10 acres 0 is public water generally available to the subject area? O TES □10-20 acres . 12 HO Daote than 20 acres The parcel size and ownership pattern of the adjacent aurrounding area is predominently: ls public sever generally available to the subject area? T YES OH ST. Is the subject area within a fire protection district? 20-40 acres .□ NO Monore than 40 acres COMMENTS Coquille REPD COMMENTS CONCLUBION CONCLUSION Do available public facilities and services conclusion that the area is "committed"? Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered to relation to the lands' actual use, contribute to that the area is "committed"? DYES Дио 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the subject area is predominately: 5. Dwelling Unit Density The existing duelling unit density is predominantly: D1 ou per 2 acres or les 0 BUILT OR COMMITTED LANDS MORK-SHEET 101 du per 5 acres I. DESCRIPTION OF AREA A. Description Township 27, Range 12, Section 20, 25, B. Brudy Area 0-3 II. INFORMATION BASE A. Existing Adjacent Uses 3 Generally Undeveloped Area consists of smill scattered des COMMENTS adjacent to the Cognille, Fairnew Roads Parcels CONCLUSION close than 5- aires Y MYES CONCLUSION - D HO. D. M AEB ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: □#0 元 100 C. P. A. P. C. C. M. M. M. C. ☐ Irrevocably consitted to an extent that satisfies the standards of OAR 660-04-025.

☐ Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. Б □ но 1

RELEVANT FACTORS CONTRIBUTING TO CONKITHENT BUILT OR COMMITTED LANDS MORK-BREET 1. Encirclement DESCRIPTION OF AREA D YES A. Description Township 27, Range II, Section 07 118 . ₩NO. other "built or committed" areas", or B. Study Area N-1 C. Acreage 106 ocres 11. INFORMATION BABE ii. "natural boundaries or other buffers separating the exception area from adjacent resource land"? Existing Adjacent Uses 1 Generally Doveloped; or : COHNENTS Generally Undeveloped Area consists of small developed parells located adjacent to Fairview Road. Parcels are generally less than & acres in size and must have dwellings on them, CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? is the area generally "encircled"? M YES Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? Neighborhood and Regional Characteristics X YES Do general neighborhood characteristics contribu conclusion that the area "committed"? Пно 0 NOTE: Existing Adjacent Daes" subject area described in L. above. THE RESERVE OF THE PROPERTY OF NOTE THE PROPERTY OF THE PARTY THE SAME SERVICE STREET STREET 0 Public Facilities and Services []5-10 scres. Is public water generally to the subject area? ☐ YES □10-20 acres Dmore than 20 acres Is public sever generally available to the subject area? The parcel size and ownership pattern surrounding area is predominantly: YES wject area □10-20 scres ... % MO NO als the subject area within a fire protection district? DYES ₩20-40 acres

The state of the s

CONCLUSION

Do available public facilities and services contribute to a conclusion that the area is "committed"?

TYPES 1

TYPES 1

4. Percel Size and Ownership Petterns

The parcel size and ownership pattern of the subject area is predominately:

⊠less than 5 acres

À. □NO

COHHENTS

Coquille PFPD.

CONCLUSION 7

COMMENTS

Dmore than 40 acres

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together. I relation to the lands' actual use, contribute to a conclution that the area is "committed"?

D YES

THE PURPOSE AND DESCRIPTION OF MANY PROPERTY OF THE PROPERTY O

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5. Dwelling Unit Density

The existing dwelling unit density of the subject a is predominantly:

2)1 du per 2 acres or less

Ö BUILT OR COMMITTED LANDS WORK-SHEET 1 D1 du per 5 scres I. DESCRIPTION OF AREA A. Description Township 27, Range 12, Section 13, 23, 224 . . D1 du per 10 scres or CONHENTS Study Area O-1 . Acreage 367 arres; 318 committed II. INFORMATION BASE A. Existing Adjacent Uses Generally Developed; or Generally Undeveloped COMMENTS Area consists of the Town of Fairriew and serrounding developed parcels Parcels are generall Faures or less in size and occur must prominently around four corners CONCLUSION Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? Tax Lits 1700, 1600, 1800 in Gottien 24D war proposed by Police Ripp for commitment but do not must the requirements of CAR 660-64-656 for commitment. . CONCLUSION D NO Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: X YES D HO ☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. Is the area physically developed or built upon to the extent it satisfies the OAR 660-04-025 standard? X YES Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. D NO l NOTE: "Existing Adjacent Uses" includes all use subject area described in 1. above. The second secon **美沙** THE PARTY OF THE P B. A. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT \bigcirc 3. Public Facilities and Bervices YES. Is public water gener to the subject area? 1. Encirclement DNO DNO Is the subject area generally surrounded on 3 or more sides by: D NO i. other "built or committed areas", or T YES ii. "netural boundaries or other buffers separating the exception area from adjacent resource land"? buffers exception area exception are exception area Ø ₩O COMMENTS area frogt inland. is the subject area within a fire protection district? TO YES □ HO COMMENTS : Coquile RFPD 6: CONCLUBION CONCLUSION Is the area o Do available public facilities and services conclusion that the area is *committed*? YES X DYES ξ □ ×ο . (2. .Вио 2. Neighborhood and Regional Characteristics 4. Parcel Size and Ownership Patterns Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? The parcel size and denership pattern of the subject area is predominately: у □ но Dless than 5 acres

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PROPRIESTED TO COLOR

3-10 acres Public Pacilities and Services le public water quarally available to the subject area? Z YES D10-20 acres . D NO Deore than 20 acres is public sever generally available to the subject area? The percel size and ownership pattern of the adjacent surrounding area is predominantly: : D YES 53 NO 110-20 acres is the subject area within a fire protection district? DYES □20-40 acres . D NO Mmore than 40 acres COMMENTS CONHENTS Charleston REPD CONCLUSION _ CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute the conclusion that the area is "consisted"? S) YES X YES DHO 4. Parcel Size and Ownership Patterns DHD The parcel size and ownership pattern of the <u>subject</u> area is predominately: 5. <u>Dwelling Unit Density</u> 0 The existing dwelling unit density of the is predominantly: 101 du per 2 acres or less BUILT OR COMMITTED LANDS WORK-SHEET 0 I. DESCRIPTION OF AREA 1 au per 5 acres Description Township 26, Range 14, Section 15, 22, 23, and 26 1 00 per 10 acres or more Study Area M-3 dwelling unit density is less for the developed parcels than CONKENTS 11. Acresse 75 acres the non-developed parcelaid A. Existing Adjacent Daes 1 ... Generally Developed; or Generally Undeveloped COMMENTS Area consists of small scattered developed a Developed porcels are generally less thank

for the control of the Seven Devils Road and Old Coos Bay, Bandon Road 17 3 10 2 CONCLUSION Do existing adjacent uses make impracticable? □ HO 1 DITINATE CONCLUSION STREET, STREET, in the area physically developed or built is actified the OAR 660-04-025 standard? IN YES E Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. © AE? D physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. (CA)

OTHER RELEVANT FACTORS CONTENENTING TO CONSITERY. in puller where animalated monthly to Dic.releners C M T NO gno:other Total or committee Is purify some penerally souther to the subject area? E 237 "natural boundaries or other buffers separating the exception area from adjacent resource land"? M NO is the subject area within a fire protection district? Ď¥ES · COMMENTS X) NO COMMENTS CONCLUSION SECTION STREET CONCLUSION -Is the area generally "encircled"? DYES 2. Neighborhood and Regional Characteristics

D YES Do general neighborhood characteristics Юно Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committee"? 4. Parcel Size and Ownership Patterns pattern of the subject O The state of the s 1.3 A ... 0 1 D5-10 scres 21 du per 5 acres □10-20 scres more than 20 acres CONHENTE The parcel size and ownership pattern of the adjacent surrounding area is predominantly: CONCLUSION COMMENTS D HO ULTIMATE CONCLUSION .. Based upon a careful consideration of the outlined above, it is concluded that the a

Irrevocably connitted to an extent the standards of OAR 660-04-025. CONCLUBION Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered togo relation to the lands' actual use, contribute to a that the area is 'committed'? C OAR 660-04-025 5. Deelling Unit Density The existing dwelling unit density of the subject area is predominantly:

D1 du per 2 acres or less

Haranganica to . \bigcirc BUILT OR COMMITTED LANDS WORK-BHEET 1. DESCRIPTION OF AREA D1 du per 10 acres or more Description Township 26, Range 14, Section 02, 03, 04, 10.211 C. Acres 474 acres A. Existing Adjacent Uses J (X) Generally Developed; or Generally Undeveloped COMHENTS Area consists of Soveral small parcels which are built and developed to residential uses as well as areas which are not developed but how lost their resource value due to CONCLUSION and developed but now real sour resource value due to the encirchment of residential and weben uses. A couple of developed subdivisions are included in the once D NO CONCLUSION Do existing adjacent uses make uses allowed by LCDC (Goal 3 or 4 impracticable? 13. ULTIMATE CONCLUSION ₩ YES * □×o Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. is the area physically developed or built upon to the extent that it satisfies the OAR 660-D4-D25 standard? TH YES Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. □ HO 1 NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in I. above.

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

1. Encirclement

∑ YES

Is the subject area generally surrounded on 3 or more sides by:

DNO

i, other 'built or committed areas', or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

Area is surrounded by urban development to the East, the Pacific Ocean to the North/and large troovere land holdings to the south.

CONCLUSION

is the area generally "encircled"?

M YES

D NO

Neighborhood and Regional Characteristics

TA YES

Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

3. Public Facilities and Services

Ø YES

Is public water generally available to the subject area?

ОИ □ , г , кі,) ду т.,..

 \odot

D YES

Is public sewer generally available to the subject area?

NO NO

X YES

D NO

COMMENTS

Charleston RFPD

Do available public facilities and services contribute conclusion that the area is "committed"?

⊠YES

DNO

4. Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the <u>subject</u> area is predominately:

M less than 5 acres

()[6] □5-10 acres D10-20 acres D1 du per 10 acres or COMMENTS Dmore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: D010-20 acres . | 20-40 acres more than 40 acres CONCLUSION COMMENTS Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? Developed areas are at an urban density. YES. D NO 111. ULTIMATE CONCLUSION Based upon a careful consideration of the information bas outlined above, it is concluded that the subject area is: Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is 'committed'? ☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025; THE . TO YES □ NO Dve) Dwelling Unit Density The existing duelling unit density of the subject area 1s predominantly:

D1 du per 2 acres or less THE THE RECEIVED AND THE RESIDENCE OF SOME SHAPE OF THE PARTY OF THE P OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT ()BUILT OR COMMITTED LANDS WORK-SHEET مكرج المرازية الرازية 1. Encirclement . is the subject area generally surrounded on 3 or more sides by: M YES DESCRIPTION OF AREA other "built or committed areas", or A. Description Township 26, Range 14, Section 61, 11, 12, 13, 14 DNO Seudy Ares M-2 "natural boundaries or other buffers separating the exception area from adjacent resource land"? "Acreege 535 acres COMMENTS INFORMATION BASE D Generally Developed or COMMENTS inded by the South Slough of th Area 15. A near consists of Several small parcels which are built and of the residential uses as well as a mas which are not developed but have lost their presence, value due to the encirclement of residential and physical fratures. COMMENTS CONCLUSION sa make uses allowed by LCDC Goal 3 bo existing adjacent impracticable? CONCLUSION . Marie . MYES . D yes

I MO

If the area physically developed or built upon to the it satisfies the OAR 660-04-025 standard? egional Characteristics 2. neighborhood Do general neighborhood and regineracteristics contribute to a conclusion that the area is "committed"? N YES N YES · / 74 · · · · Dno , . □ № J NOTE: "Existing Adjacent Uses" includes all uses subject area described in 1. above. Ó

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OTHER RELEVANT PACTORS CONTRIBUTING TO CONNITHENT 1. Bncirclement is the subject area generally surrounded on J or more sides by: 20 YES DNO i. other "built or committed D YES <u> = = </u> Areas are surrounded by Isthmos blough and large commercial timber holdings which would make future □ NO COMMENTS Green Aims REPL finland development difficult of CONCLUSION Ta the area generally "encircled"? Do available public facilities and ser-conclusion that the area is "committed ∲⊱ ⊟ но CYES . NO . and Regional Characteristics 4. Parcel Size and Ownership Patterns Do general neighborhood and recharacteristics contribute to conclusion that the area is "committed"? Zi. 🖾 AEE No D No Diese than 5 sores Ø5-10 scres D10-20 acres Dmore than 20 acres ne parcel size and ownership pattern of the adjacent D10-20 scres E20-40 acres 1.20 Dmore than 40 acres COMMENTS ULTIMATE CONCLUSION Physically developed or built upon to a that satisfies the standards of OAR 660 (X) YES Dwelling Unit Density The existing dwelling unit density is predominantly: D1 du per 2 acres or less

3. Public facilities and Bervices

1 1 C

T).TE in the municul mreargementally murrounued on 3 or more sides by: Description Township 24, Ronge 13, Section 34 Divo other "built or committed areas", or B. Study Area L-4 II. INFORMATION BASE "natural boundaries or other buffers separating the exception area from adjacent resource land"? ICO acres Existing Adjacent Uses 4 D Generally Developed; or COMMENTS Generally Undeveloped Area adjacent to the parcels is a large commercial timber holding which would restrict future inland COMMENTS wonting Consists of process appresimatly 7 to 20 acres in which are generally dureliped for recidential uses. development. . CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? CONCLUEION BALLES-DYES THE THEFT 1.18 the area generally *encircled*? ****** * □ №0 TO YES Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? . DNO S3Y 🖫 2. Neighborhood and Regional Characteristics □ NO Do general neighborhood and recharacteristics contribute to conclusion that the area is "committed"? X Yrs □ но _] NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. above. APRICATA MAN Sec. 3. 34. personal results. The allegation of the religious tensors \bigcirc 3. Public Fecilities and Services Ø5-10 acres YES Is public water generally available to the subject area? □10-20 acres ED NO. Mmore than 20 acres i 🖸 YES Is public sever generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: □10-20 acres В но Is the subject area within a fire protection district? DYES . . D20-40 acres Mmore than 40 acres COMMENTS COMMENTS CONCLUBION Do available public facilities and services contribute to a conclusion that the area is "conmitted"? Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is 'coomitted'? . PYES . ⊠no X YES . 4. Parcel Size and Ownership Patterns The percel size and ownership pattern of the <u>subject</u> area is predominately: 5. Dwelling Unit Denmity The existing duelling unit density of the subject area is predominantly: less than 5 acres D1 du per 2 acres or less

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DS-10 acres 10-20 acres Dmore than 20 acres The percel size and ownership pattern of the adjacent surrounding area is predominantly: Ø10-20 acres D20-40 acres . | | nore than 40 acres . CONCLUSION . COMMENTS Parelly that are developed tend to be less than five acres in five, while undeveloped percels are much larger. Adjacent at urban densities. surrounding paraels tend T YES , Пио ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: Physically developed or built upon that satisfies the standards of OAR 6. D YES . □HO 3. Dwelling Unit Density The existing dwelling unit density of the BUILT OR COMMITTED LANDS WORK-OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Encirclement BUILT OR COMMITTED LANDS WORK-SHEET . DESCRIPTION OF AREA NYES. Description Township 267 Range 13, Section 01, 12, 13, 24, 1.25 other built or committed □но

医工作的是一种工作的,但是一种工作的,但是是一种工作的。

Man Market

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3. Public facilities D10-20 acres 04 🗖 Doors than 30 acres Is public sever generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: T YES D10-20 acres Ø20-40 acres . □ но Dmore than 40 acres COMMENTS CONHENTS Libby . BYES r) Dino Parcel Size and Ownership Patterns The parcel size and conership pattern of the <u>subject</u> area is predominately: S. Dwelling Unit Density The existing dwelling unit density of the subject are is predominently: Diess than 5 acres 101 du per 2 acres or less BUILT OR CONNITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA Description Township 26, Range 13, Section 22,22, 26,37, 1 Study Area 1-3 C. Acreage 256 acres Existing Adjacent Daes S Generally Developed; or Generally Undeveloped COMMENTS

Area consists of Scaleral developed to Highway 12 and U.S. Highway 15 bill upon and thus committed to and U.S. Highway 101. Most M YES \$ Bir - 19 Do existing adjacent uses impracticable? P □ HO MYES . OLTSHATE CONCLUSION Based upon a careful consideration of the information base.

To outlined above, it is concluded that the subject area is:

Outlined above, it is concluded that the subject area is:

Outlined above, it is concluded that the subject area is:

Outlined above, it is concluded that the subject area is:

Outlined above, it is concluded that the subject area is:

Outlined above, it is concluded that satisfies the standards of Outlined that satisfies Y DNO Is the area physically developed or built it satisfies the OAR 660-04-025 standard? TO YES

NULT OR CONHITTED LANDS WORK-BREET Description Township 26, Range 12, Section 24, 32, and 38

study Area K-7 INFORMATION BASE 90 acres

Existing Adjacent Uses

D Generally Developed; or Generally Undeveloped

COMMENTS

Area consists of small developed groups of parcels located odjacent to small resource land holdings, securelly, the committed percels have duellings on them. The town of Summer is included in this area Grand RD .

CONCLUSION

existing adjacent uses make uses allowed by LCDC Goal 3 or 4

D NO.

B. OTHER RELEVANT PACTORS CONTRIBUTING TO CONNITNENT

1. Engirelement

the subject area generally surround or more sides by:

natural boundaries or other buffers separating the exception area from adjacent resource land?

Area is surrounded by Catching Slough on the West, a Committed arm on the South, and a committed area.

CONCLUSION

is the area generally "encircled"?

PUDILC	Facilities	ano	PELATCE

10 NO

X XXXX

COMMENTS

□5-10 scres

□ 10-20 acres

CONHERTS

CONCLUSION

d', Øres

15 □ NO

□но ј

Dwelling Unit Density

D1 du per 2 acres or less

COMMENTS B. Study Ates L-I C. Acress 932 acres A. Existing Adjacent Uses 1 S Generally Developed; or [] Generally Undeveloped Area consists of areas which are built and drukped to residential Uses as well as areas which are not developed but have less their presence value due to the concretement of residential CONCLUSION and urban uses. Ø Y£\$. CONCLUSION D 80 ULTIMATE CONCLUSION D YES -D NO Ø YES Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. **建长数** Public Facilities and Services O OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Is public water gene to the subject area? 6.1. Encirclement is the subject area generally surrounded on 3 or more sides by: i. other "built or committed areas", or 1. TYES 11. "natural boundaries or other buffers separating the exception area from adjacent resource land"? MO NO Is the subject area within a fir protection district? X YES CONHENTS Arec is currounded by orban growth areas on 3% sides as well as the Jethnois Slough to the East. The small southwest uncircled three is a large commercial timber. □ HO COMMENTS Libby REPD holding which would likely future develop CONCLUSION CONCLUSION Do available public facil conclusion that the area - F DYES 2. Reighborhood and Regional Characteristics 4. Parcel Size and Ownership Patterns M ATE The parcel size and ownership pattern area is predominately:

1 du per 10 ecres or

□ NO :

BUILT OR CONHITTED LANDS WORK-BREET

⊠less than 5.acres

Description Township 06, Range 13, Section 02,03,10, 11, 114

1. DESCRIPTION OF AREA

73. Public Facilities and Services □5-10 acres Is public water generally available to the subject area? □10-20 acres он 📆 Dmore than 20 scres The parcel mise and ownership pattern of the adjacent aurrounding area is predominantly: Is public sever, generally available to the subject arem? 12 NO □10-20 acres Is the subject area within a fire protection district? E3Y CT **⊠20-4D** acres | Вучев | Вучев 4. Parcel Size and Ownership Patterns □ HO The parcel size and ownership pattern of the <u>subject</u> area is predominately: 5. bwelling Unit Density. □1 du per 2 acres or lers 在海外的一个 BUILT OR CONHITTED LANDS WORK-SHEET DESCRIPTION OF AREA Description Township 26, Range 12, Section 29,130 COHMENTS. B. Study Area K-6 11. INFORMATION BASE A. Existing Adjacent Uses J. ... (Generally Developed; or C Generally Undeveloped CONNENTS
Area Consists of Small developed parcels la Coos City Summer Co. Road .. CONCLUSION ... Based upon a careful consideration of the information base outlined above it is concluded that the subject area is:

O Trevocably committed to an extent that matinfies the standards of OAR 650-04-025. D AER . ⊠ YES

ENTERED TO THE RESIDENCE OF THE PROPERTY OF TH

TANT

OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITMENT 1. Encirclement Ø YES □NO Is the subject area generally surrounded on 3 or more sides by: i. other "built or committed areas", or Is public sever generally available to the subject area? 'natural boundaries or other buffers separating the exception area from adjacent resource land'? DO NO MYES Is the subject area within a fire protection district? COMMENTS Arra is surrounded by Catching Shough to the East, a committed are to the North, and a committed area COMMENTS to the ScothEast. CONCLUSION CONCLUSION Is the area generally "encircled"? D YES **⊠YE**5 2. <u>Neighborhood and Regional Characteristics</u>

DYES Do general neighborhood characteristics contrib DNO . . Parcel Size and Ownersh p Patterns Do general neighborhood and regional characteristics contribute to a conclusion that the area is "conmitted"? The parcel size and ownership pattern of the <u>subject</u> area is predominately: The same of the sa **19**2 Ø □ 5-10.acres □ 10-20 ecres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: D20-40 acres

Dance than 40 acres

COMMENTS CONCLUSION XI YES □ NO ULTIMATE CONCLUSION The existing dwelling unit density of the subject area is predominantly:

The state of the s

0 1 du per 2 acres or less

0 BUILT OR COMMITTED LANDS WORK-SHEET 1. DESCRIPTION OF AREA A. Description Township 26, Range 12, Section 07, 17, 4-18 B. Study Area K-4 C. Acreage 450 acres, 431 acres committed A. Existing Adjacent Daes ☑ Generally Developed; or [] Generally Undeveloped COMMENTS Area consists of developed parcels located west of Cithing Slough off of Eastside Summer (o. Rond, Parcels are generally 5 owes or bes in size and built upon, Mike Rupp has proposed committed for a few paralle beached fair of Catching Sleigh. Tax Lats 100,200, and 400 which are ranged RR-s by the County do med the requirements of OAL 600-0742.

While Tax Lat 200 (NETH, NOVY) 2 and Esthelia From Bu (27)) . ช่อริธิบาวแอว . D NO Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? SETTIMATE CONCLUSION . YES □ NO ☑ Irrevocably committed to an extent that satisfies the standards of DAR 660-04-025. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. AND EDGE OF CONTROL OF Public Pacilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT 1. Encirclement Is the subject area generally surrounded on 3 or more sides by: 1. Other "built or committed areas", or DNO . TYES Areas", or

ii., natural boundaries or other
buffers separating the
exception area from adjacent
resource land"?

Area is curronded by Cothing Sleigh to the East, a
the South South South South South South COHHENTS CONCLUSION Do available public facilities conclusion that the area is 'c 12 YES DASE 2. Neighborhood bo general neighborhood and regional characteristics contribute to a conclusion that the area is committed? ... Parcel Size and Ownership Patterns The parcel size and ownership pattern area is predominately:

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FIRE ENGINEER OF THE PROPERTY
Dless than 5 acres

1 du per 5 acres ." D10-20 acres Mmore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: M20-40 acres Dmore than 40 acres COMMENTS CONCLUSION . Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? .0 D NO ULTIMATE CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands actual use, contribute to a conclusion that the area is 'committed'? ☑ Irrevocably committed to an extent that matimfies the standards of OAR 660-04-05. Ø YES M Physically developed or built upon to an extent that satisfies the standards of OAA 460-04-025. Dwelling Unit Density The existing duelling unit density of the subject area is predominantly: 1 du per 2 acres or less ... A THE RESIDENCE OF THE PROPERTY OF THE PROPERT 湯罐 The state of the s and the second s BUILT OR COMMITTED LANDS WORK-SPEET

(T26; R12 B. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

1. Encirclement T26, R12 1. DESCRIPTION OF AREA A. Description Tourney 20, 21, and 28 The subject area generally surrounded on 3 or more sides by: other "built or committed" B. Study Area K-5 ii. "natural boundaries or other buffers asparating the exception area from adjacent resource land"?

COMMENTS

The area is surreunded by Catching Slaugh the test out a green mixed area to the Southwest and a green field area to the Southwest. ii. 'natural boundaries or other buffers saparating the exception area from adjacent resource land'? Acreage 266 acres THE PROPERTY OF II: INFORMATION BASE II. IMPORMATION BASE

WAY | Existing Adjacent Uses |

WE Generally Developed or |

Openerally Undeveloped |

Openerally Undeveloped | COMMENTS

Area consists of parcell approximately therefore has in sixe which are for the most part developed to residential uses.

Area is leasted East of Catalony Slowyh, with the acception of a small development, when of the Swage. CONCLUSION 1. Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 gimpracticable? CONCLUSION & Is the area generally "encircled"? D YES no

'a the area physically developed or built upon to the extent that the state of the one of the extent that ⊠ YES standard? N YES 2. Neighborhood and Regional Characteristics (

₩ YES

. DNO

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()

□5-10 acres

OTHER RELEVANT PACTORS CONTRIBUTING TO CONNITHENT iO 3. Public Facilities and Bervices 1. Encirc

□ YES 1. Encirclement D YES Is the subject area generally surrounded on 3 or more sides by: ⊠но Ø HO i. other "built or committed areas", or is public sever generally available to the subject area? *natural boundaries or other buffers separating the exception area from adjacent resource land*? D NO COMMENTS Is the subject area within a fire protection district? X YES DNO COMMENTS Sumner CONCLUSION 2012 20 12 de 192 CONCLUSION . Is the area generally "encircled"? DYES 2. Heighborhood and Regional Characteristics Heir ⊠ио 4. Parcel Size and Ownership Patterns . The parcel size and ownership pattern of the subject erea is predominately: □ NO: 0 ☑less than 5 acres Productive and the state of the Town **对比别从群**。 10 5-10 acres D10-20 acres A more than 20 acres CONHENTS

"可是正正理解决例的数据的证据,可可能是否是证据。"

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size and ownership patterns o counding area, when considered lends' actual use; contribute 'committed'?

No. □xo

5. Dvelling

D1 du per 2 scres or less 数例。由于多数 CONCLUSION

M YES

□ №

ULTIMATE CONCLUSION

Based upon a careful consideration of the inform outlined above, it is concluded that the subject 1.1

,... × ,

Physically developed or built that satisfies the standards

BUILT OR CONKITTED LANDS WORK-BREET

DESCRIPTION OF AREA

A. Description Township DG, Range 12, Section 06,06,07, 1 09

C. Acres 310 Gires 11. INFORMATION BASE

A. Existing Adjacent Uses -, 🛭 Generally Developed; or

Generally Undeveloped

COMHENTS

- Area consists of parcels which are developed to residential uses. Two cubdivisions are included within the study area.

. Aren prepried by Mike Rupp for commitment does neet the OAC LLO-CV-CDS Standards. It has been zoned recibelial by the County and is surrounded by developed residential arross.

CONCLUSION

to existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

(13 YES .

₩ YES

OTHER RELEVANT PACTORS CONTRIBUTING TO CONHITHENT

X YES

DNO

the subject area generally surrounded or more sides by:

other built or committed areas, or

ii. "natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

Area is surrounded by Catching Slough on the North and East. The South constitutes another committed area . .

Neighborhood and Regional Characteristics

Do general neighborhood and characteristics contribute conclusion that the area is "committed"?

Is public water generally available to the subject area?

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A D Abr

Is public sewer generally available to the subject arem?

OK O

A DYES

in subject arem 7

COMMENTS

CONCLUSION

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4. Parcel Size and Ownership Patterns

-- 5-10 acres

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☐ 10-20 acres

Doore than 20 scres

1310-20 scres

□more than 40 acres

COMMENTS

21 du per 2 acres or less

□3-10 acres: ☐ 10-50 ecten Omere than 20 seres CCHMENTE The parcel size and ownership pattern of the adjacent surrounding area is predominantly: . D20-40 acres Manore than 40 scres COMMENTS CONCLUSION Does the predominant dwelling unit density of the area contribute to a conclusion that the area in " ULTIHATE CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the land's actual use, contribute to a conclusion that the area is 'committed'? Di Irrevocably conmitted to an extent that matisfies the standards of OAR 660-04-025. D Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. D-elling Unit Density 0 The existing dvelling unit density of the subject area THE RESERVE OF THE PROPERTY OF ACTION OF THE TRANSPORT PROPERTY OF THE PROPER \bigcirc BUILT OR COMMITTED LANDS WORK-SHEET DAER . is the subject area generally surrounded on 3 or more sides by: Description Tourship 26, Range 12, Section 03, 10, 12. other 'built or conditted areas', or Study Area K-1 "natural boundaries or other buffers separating the exception area from adjacent resource land"? C. Acrenge 130 acres Existing Adjacent Uses -D Generally Developed; or CONHENTS Generally Undeveloped consists of there developed areas located adjacent to Daniels Creek Ci. Rood and Mergan Creek Rand. Parcels are generally less than 5 acres in size have dismillings founted on them. CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? CONCLUSION is the area generally "encircled"? M YES DNO Is the area physically developed or built upon to the extent that it satisfies the CAR 560-04-025 standard? Heighborhood and Regional Characteristics GJ.YES Do general heighborhood and regions characteristics contribute to a conclusion that the area is "committed"? DNO NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in I. above.

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 \bigcirc Toblic Facilities and Services 13-10 acres. T YES D10-20 scres Omore then 20 scres to public onver generally available to the subject area? The percel wise and ownership pattern of the Aditornt surrounding area is predominantly: , 🖸 YEE D NO Is the subject area within a fire protection district? □ YES 20-40 acres .. **⊠**110 Dmore than 40 acres COMMENTS COMMENTS CONCLUSION Do available public facilities and services contrabute to a conclusion that the area is "committed"? Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"? OYES 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>subject</u> area is predominately: 5. Dwelling Unit Density The existing dwelling unit density of the subject area is predominantly: □1 du per 2 acres or . 268 DESCRIPTION OF CHARLES CONTROL OF CONTROL OF STREET OF STREET OF STREET OF STREET OF STREET, S O 0: BUILT OR COMMITTED LANDS WORK-SHEET . 1. DESCRIPTION OF AREA 201 du per 5 acres A. Description Tewnship 26, Range 12; Section 04,08,09 B. Study Area K-2 . . . C. Acresc 125 acres; 121 acres committed A. Existing Adjacent Uses 3 -. D Generally Developed; or Generally Undevaloped COHMENTS Area consists of developed parcels beath against to Slough Co. Road For the most party-pricell in the area built your built ... upon. Tay Lot 1000 located in Section of was for terminiment. The triaty has zoned this personal by the for terminiment. The triaty has zoned this personal state to the personal transfer to each meet the requirements of OAR state become for Commitment. THYES 7. J- 🗆 NO Do existing adjacent uses make uses allowed by LCDC Goal 3 or impracticable? DET. HATE CONCLUSION ∑ Irrevocably committed to an extent that the standards of DAR 660-04-025. Ø YES

THE THE THE PARTY OF THE PARTY

L. Carrier OTHER RELEVANT PACTORS CONTRIBUTING TO CONSISSIONS () BUILT OR CONKITCED LANG HORE-RELET 1. Indirolemant N YES DESCRIPTION OF AREA Description Township 26, Range II, Section 28,29 DNO Study Ares J-1 'nstural boundaries or other buffers separating the exception area from adjacent resource land'? C. Acreage 35 acres A. n Existing Adjacent Uses The area is surrounded by large commercial timber holding as well as large agricultural land holdings. Further developm approves impractical due to the large generally patients of the adjoints paperties B Generally Developed; or . Generally Undeveloped Area consists of small parcels which are for the most part developed for residential uses Dwellings are relating on the majority of precile Development has pocured adjacent to the Cognille, Fairview Road. COMMENTS CONCLUBION Do existing adjacent uses make uses impracticable? CONCLUSION M YES - yr Is the area generally "encircled"? DHO SE DHO 2. Reighborhood and Regional Characteristics Do general neighborhood and re-characteristics contribute to a conclusion that the area is "committed"?

□ HO

THE RESIDENCE OF THE PROPERTY
THE TOTAL PROPERTY OF THE PROP Public Facilities and Bervices 25-10 acres Is public water generally availate the subject area? D'nci D10-20 acres of the ediscent the parcel size and ownership pat-surrounding area is predominantly 770 111 MO. □10-20 acres Is the subject arem protection district? T DYES D20-45, ecres 4 ₩O Baore than 40 beres COMMENTS CONHERTS

CONCLUSION . IN YES Parcel Size and Ownership Patterns DHO 🗼

The existing duelling is predominantly: D1 du per 2 acres or less

BUILT OR COMMITTED LANDS WORK-SHEET 1. DESCRIPTION OF AREA Description Township 26. Range II, Section 24,32 1 do per 10 acres or Study Ares J-2 CONHENTS 11. INFORMATION BASE Existing Adjacent Uses 3 Generally Undeveloped COMMENTS

Area consists of very small parcels leasted adjacent the Cognille, Fairview Rend. Most are developed for residuations. CONCLUSION CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ULTIMATE CONCLUSION DNO Is the area physically developed or built upon to the extent it satisfies the OAR 660-04-025 standard? DO YES Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. D HO NOTE: "Existing Adjacent Uses" includes all uses subject area described in 1. above. ⊙: B. OTHER RELEVANT PACTORS CONTRIBUTING TO COMMITMENT Public Facilities and Services 1. Encirclement

DYES Is the subject area generally surrounded on 1 or sore sides by: TYES. DO NO D#0 other built or committed TYES ii. "netural boundaries or other buffers seperating the exception area from adjacent resource land?" O YES COMMENTS The are is surrounded by large commercial timber holdings as well as large agricultural land holdings. Further development DR NO as well as large agricultural land haldings. Further development of the large amership patterns of the adjacent properties. COMMENTS

Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the subject area is predominately:

Dless than 5 acres

- CV 1818-178-V

Public Facilities and Services □3-10 acres Is public water generally available to the subject area? Nº YES 10-20 acres Dmore then 20 scree In public sewer generally available to the subject area? The parcel size and ownership pattorn of the asiabent autrounding area is predominantly: 2010-20 acres Is the subject area within a fire protection district? □20-40 acres □ #0 · Dmore than 40 acres CONHENTS North Buy REPD r. Syres □N0 X YES Parcel Size and Ownership Patterns TINO : The parcel size and ownership pattern of the subject Dielling Unit Density .-The existing dwelling unit density is predominantly: 2 2 less than 5 acres ⊠1 du per 2 acres or less THE RESERVE WHEN THE PROPERTY OF THE PARTY O THE OWN OF THE PARTY OF THE PAR DESCRIPTION OF AREA A. Description Township 25, Range 13, Section 30 CONHERTS B. Study Area H-4 C. Acrese 43 acres A. Existing Adjacent Dags Generally Developed; or Generally Undeveloped COMMENTS This percel is cor of other land uses. CONCLUSION H YES CONCLUSION Do existing adjacent uses make uses impracticable? D YES Moreove, it is concluded that the subject area is:

| Irrevocably committed to an extent that satisfifthe stendards of OAR 660-04-025.
| Physically developed of built upon to an extent that satisfies the standards of OAR 660-04-025. TOYES Y

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OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Is the subject area generally surrounded on 3 or more sides by: □HO Blass . D NO other "built or committed areas", or ii. "Anstural boundaries or other buffers separating the exception area from adjacent resource land"? Is the subject area within sufire protection district? X YES COHHENTS The subject area is curriended by urban discipnant to the Liest, Industrial discipnant to the East, and more DNO is urban duelepment to the North . COMMENTS North Bay REPO CONCLUSION 2. Heighborhood and Regional Characteristics Do general neighborhood and regional characteristics contribute to a conclusion that the area is "consitted"? The parcel size and ownership pattern of the subject area is predominately: NO NO Dless than 5 acres The same of the sa CONT. whether the state of the state 5-10 scres 1. □ 70-50 ectes . Dwore than 20 acres The parcel size and ownership surrounding area is predomina 1010-20 acres % D20-40 ecres by Daore than 40 acres COMMENTS NO NO ULTIMATE CONCLUSION : Based upon a careful consideration of outlined above, it is concluded that ONO Y k

3. Public

Delling Unit Density The existing dwelling unit density is predominantly:

0 BUILT OR COMMITTED LANDS MORK-BREET D1 do per 5 acres 1. DESCRIPTION OF AREA Description Township 25, Range 13, Section 12, 13,1 24 Study Ares H-2 C. Acrosac 540 acros 500 acro committed A. Existing Adjacent Uses I Generally Developed; or Generally Undeveloped Area consists of very small developed parcels many of which are partions of caisting subdivisions. Area is adjacent to the City of Cons Bay and the Tidelands of Cons Bay CONHENTS CONCLUSION Section 12 DC has been preposed by rike Rupp for commitment, but due to the last of development in the area it does not meet the requirements of DAR 660-04-025 for CONCLUSION H ment. D NO. Do existing adjacent uses make uses allowed by LCDC Goal 3 pp 4 impracticable? DITINATE CONCLUSION A SERVICE OF THE PROPERTY X YES -Д □ но the or the state of the state o ☐ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. and the same and the same YES . M Physically developed or built upon to an extent that satisfies the standards of DAR 660-04-025. □ NO NOTE: "Existing Adjacent Uses" includes all wase in the subject area described in I. above. 是在100mm 在100mm 100mm OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT 1 Encirclement Dyrs: Is the subject area generally surrounded on 3 or more sides by:

The relevant factors contributing to commitment

I Encirclement

I Encirclement

I Encirclement

I Is the subject area generally surrounded on 3 or more sides by:

I the factor of the surrounded of the second of the sucception area from adjacent resource lend?

Comments

Area is surrounded by the Chy of Cock Day Tipliands for the sucception area from adjacent resource lend?

Comments

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E Dwore than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: \$310-20 acres D20-40 acres Dmore than 40 acres CONHENTS Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed" □ NO ULTIHATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusi-that the area is "conmitted"? CONCLUSION Trevocably committed to an extent that satisfies the standards of OAR 660-04-025. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. DAYES . DNO 7 5. Deelling Unit Density The existing dwelling unit density of the subject area is predominently: . 190 THE RESERVE OF THE PROPERTY OF W. W. Y. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT BUILT OR COMMITTED LANDS MORK-SHEET Zncirclement Is the subject area generally surrounded on 3 or more sides by: DESCRIPTION OF AREA MYES : At Description Township 25, Range 13, Section other "built or committed" " THO a. Study area H-3 ii, "natural boundaries or other buffers separating the exception area from adjacent resource land"? Chi. Acreage 160 acres INFORMATION BASE A Paristing Adjacent Uses December 19 December 19 December 19 Understoped 19 COMMENTS COMMENTS . C Area is surrounded by the city of Cous Bay Titel Three consists of three duringer cold the duringer cold the during the beautiful the beautiful the beautiful to be the cold to Don't built CONCLUSION . CONCLUEION ... A Date WYES IN **∆**□*****° DNO L Ø YES □ HO ... MYES . , ...

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Di-10 acres

Supplies of the town

N. SARK

المراجع والهرواني يهدار الواهم أناب الما 1. Encirclement YES Is public-water generally available to the subject area? TYES . Is the subject area generally surrounded on 3 or more sides by: other "built or committed areas", or YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? Вио is the subject area within a fire protection district? DYES. COMMENTS Area is directorded by a committed area to the North, a combiled ONO and an industrial over to the Northwest. 1, CONCLUSION CONCLUSION Is the area generally "encircled"? Do available public facilities and services contribute to a conclusion that the area is "conmitted"? YES DYES P □ NO DYES 2. Neighborhood and Regional Characteristics ₫ио □ YES Do general neighborhood and regional characteristics contribute to a conclusion that the area is "conmitted"? 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the subject area is predominately: ₽ NO Dless than 5 acres Sec. 2. 6.5. 7-4-4-3 1 5-10 scres D1 do per 5 acres []1 du per 10 acres or more COMMENTS The percel size and ownership pattern of the adjacent surrounding area is predominantly: 10-20 acres . . Dmore than 40 acres COMMENTS ☐ YES

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D YES

The existing dwelling unit density of the is predominantly:

16 54.44 3 F 558 1

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area las.

Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

Trrevocably committed to an extent the standards of OAR 660-04-025.

OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITHENT BUILT OR COMMITTED LANDS WORK-SHEET έO. 1. Encirclement Is the subject area generally surrounded on 3 or more sides by: X YES DESCRIPTION OF AREA A. Description Township 21, Range 12, bedien 24132 DNO i. other "built or committee" areas", or B. Study Area 5-5 ii, "matural boundaries or other buffers separating the exception area from adjacent resource land"? 220 ners ACTUAGE 2 A. Existing Adjacent Uses 4 COMMENTS Generally Developed; or Area is corrected by a committed area to the North, and on inductrial area to the South and Sections. . D Generally Undeveloped CONHENTS Area consists of developed parcels located adjacent to Highway 42. CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? CONCLUSION **⊠** yes Is the area generally "encircled"? □но YES is the area physically developed or built upon to them extent that it satisfies the OAR 660-04-025 standard? □ NO Ø YES □ HO 2. Reighborhood and Regional Characteristics . Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? ~O NOTE: "Existing Adjacent Daes" includes all uses in the aubject area described i. I. above. CHECKS TO THE PROPERTY OF THE PARTY OF THE P 3. Public Facilities and Services ()□5-10 acres . Is public water generally available to the subject area? D YES □10-20 acres D0 NO Dmore than 20 acres Is public sewer generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: PYES . Ø WO . M10-20 acres Is the subject area within a fire : protection district? D YES . || 20-40 acres □но Dnore than 40 scres CONMENTS CONHENTS Copille REPD COMMENTS 1: CONCLUSION CONCLUSION bo available public facilities and services contribute to a conclusion that the area is "committed"? Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"? 120 NO X YES

5. Dwelling Unit Density

1.

The second secon

D1 du per 2 acres or less

The existing dwelling unit density of the subject area is predominantly:

4. Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the <u>subject</u>
area is predominately:

Diess than 5 acres

with the same of t

O 3, public Pacifities and Bervices D5-10 Apres is public water constally available to the subject area? D YES □10-20 apres M NO Dmore than 20 acres Is public sever generally available to the subject area? D YES The parcel size and ownership pattern of the adjacent surrounding area is predominantly: ⊠ но Is the subject area within a fire protection district? YES. □20-40 acres DNO □more than 40 acres COMMENTS Coquille Rrpo. COMMENTS CONCLUSION Do available public facilities and services contribute to a conclusion that the area is "committee"? Does the parcel size and ownership patterns o and adjacent surrounding area, when considere relation to the lands' actual use, contribute that the area is 'conmitted'? DYES . DNO N YES 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>subject</u> area is predominately! DNO. 5. Deelling Unit Density Dless than 5 screa The existing duelling unit density of the is predominantly: 21 du per 2 acres or less 0 BUILT OR COMMITTED LANDS WORK-SHEET di D1 du per 5 acres I. DESCRIPTION OF AREA A. Description Township Of, Ronge 13, Section 01, 10, 16; D1 du per 10 acres or more, COMMENTS Study Ares T-3 C. Acresse , 374 acres; 304 acres committed A., Existing Adjacent Uses 3 ☑ Generally Undeveloped COMMENTS

Area has been proposed by thick Exp for commitment. The parcels are generally about 5 acres in size and area in different commenting. Archivel presidential development in the commentation of the c CONCLUSION A portion of the area proposal by Rupp that is an YES . dees but meet the requirements of DAR ULTIMATE CONCLUSION CONCLUSION -Do existing adjacent uses make uses impracticable? YES ☐ Irrevocably, committed to an extent that satisfies the standards of OAR 660-04-025. рио Is the area physically developed or built upon it satisfies the OAR 660-04-025 standard? 1 NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. above.

THE RESERVE OF THE PROPERTY OF

(). BUILT OR CONKITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA D1 du per 5 ecres Description Township 24, Range 13, Section 01 D1 du per 10 acres or more B. Study Area T-1 CONHENTS C. Acrose 18 acres A. Existing Adjacent Uses S Generally Developed; or Generally Undeveloped Area consists of small durliped porcels located adjacent . to the City of Cognitic. COMMENTS Does the predominant dvelling unit density of the subject area contribute to a conclusion that the area is "committed"? . CONCLUSION □ #0 Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? ULTIMATE CONCLUSION X YES Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: · D NO Is the area physically developed or built upon to the extent that it satisfies the OAR 560-04-025 standard? ☑ Irrevocably committed to an extent that satisfies: the standards of DAR 660-04-023. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. D NO NOTE: "Existing Adjacent Uses" includes all uses in the particle area described in I. above.

control with purpose and significant property in the property

B. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

- 1. Encirclement
- D YES

Is the subject area generally surrounded on 3 or more sides by:

... □#0

> i. other "built or committed areas", or

 "natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

are is corrounded by the city of copulities

CONCLUSION

is the area generally "encircled"?

M YES

DNO

2. Neighborhood and Regional Characteristics

D YES

Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

D HC

3. Public Facilities and Services

the state of the s

YES Is public vater generally availab to the subject area?

В но

☐ YES Is public sever generally available to the subject area?

🛛 но

∑YΣS Is the subject area within a fire protection district?

DNO

COMMENTS

Coquille REPD.

CONCLUSION

Do available public facilities and services contribute to a conclusion that the area is "committed"?

□YES

. M×c

4. Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the <u>subject</u> area is predominately:

1 less than 5 acres

Public Facilities \bigcirc 3.7 and Services □5-10 acres D YES Is public water generally available to the subject area? □10-20 acres more than 20 acres Is public sever generally available to the subject area? YES The parcel size and ownership pattern of the adjacent surrounding area is predominantly: M ND (∑)10-20 acres Is the subject area within a fire protection district? X YES □20-40 acres DNO Dmore than 40 acres COMMENTS Coquille RTPD. COMMENTS CONCLUSION CONCLUSION -Do available public facilities and services comtribute to a conclusion that the area is "committed"? Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusionable that the area is 'conmitted'? DYES . Мио . . . M YES 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>subject</u> area is predominately: DNO. 5. Dwelling Unit Density ∑less than 5 acres The existing dwelling unit density of the subject area is predominantly: O 0 BUILT OR COMMITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA 1 du per 10 acres or more A. Description Township Dr., Ronge 13, Section 01,10,16 1 COMMENTS B. Study Area T-3 C. Acreage , 378 acres; 304 acres committed A. Existing Adjacent Uses 3 Generally Developed; or S Generally Undeveloped COMMENTS

Are his been proposed by thice Expp for Committional The parcels are generally about 5 acres in \$124 and are in the first acres in the second conversions. Action of the second configuration that is the second area as a few from CONCLUSION A parties of the area preposal by Rupp that is a does not meet the regularization of OAR (60-00-00) CONCLUSION Do existing adjacent uses make uses allowed by impracticable? Abased upon a careful consideration of the information base outlined above, it is concluded that the subject area is: TO YES рио · 原本 ☐ irrevocably, committed to an extent the standards of OAR \$60-04-025. □ YES ☑ HO Physically developed or boilt upon to an extent that satisfies the standards of OAR 660-04-025. NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. above.

THE RESERVE OF THE PROPERTY OF

 \bigcirc O. 1 du per 5 acres D10-20 seres COMMENTS The parcel size and ownership pattern of the adjacent surrounding area is predominantly: :- []10-20 acres Ø20-40 acres Dmore than 40 acres CONCLUSION COMMENTS Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed" YES YES I NO ULTIMATE CONCLUSION CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclud-that the area is 'committed'? IN Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. MYES 5. Deelling Unit Density The existing dwelling unit density of is predominantly: □ du per 2 acres or less BUILT OR COMMITTED LANDS MORK-SPEET OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT DESCRIPTION OF AREA DYES A. Description Township St. Range 13, Section 01,10, 116 other built or committed S. Study Area T-2

Con Acres 45 aires

116 INFORMATION BASE III. INFORMATION BASE

Sight intering Adjacent Uses I |

Somerally Developed; or |

Comments |

Area Convicts of the beauty of Rieston and adj

Area Convicts of the beauty of Rieston and adj COHHENTS CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3
Grisprecticable? CONCLUSION CALLE DYES NO NO YZS 🗎 eveloped or built upon to -04-025 standard? ÷ ₩ NO В YES □но Meighborhood and Regional Characteria *... - □ но NOTE: "Existing Adjacent Uses" includes ubject area described in I. above.

ا با () Public Pacificies and Bervices D3-10 acres Is public water generally available to the subject area? O YES D10-20 seres Omore than 20 acres Is public sever generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: ☐ YES M MD 1010-20 acres Is the subject area within a fire protection district? X YES □20-40 acres □ NO ☐more than 40 acres COMMENTS Coquille RTPD. COMMENTS CONCLUSION CONCLUSION Do available public facilities and services comtribute to a conclusion that the area is "committed"? Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclus that the area is 'conmitted'? ⊠ио MYEB - - DALES 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the <u>subject</u> area is predominately: D NO 5. Dwelling Unit Density ... 2 less than 5 acres 0 BUILT OR COMMITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA Description Township 24, Ronge 13, Section 01,10, 16 11 du per 10 acres or more, Study Area T-3 COMMENTS C. Acreage 374 acres; 304 acres committed A. Existing Adjacent Uses Generally Developed; or ☑ Generally Undeveloped COMMENTS . Area has been proposed by Mike Rupp for co Area has been proposed by thike Bupp for committeed. It perculs are accurally about 5 acres in size and are in different ownerships. Actual transductional development in the mance its feel. CONCLUSION A parties of the area proposal by Eupp that is small does not meet the regiments of OAR (460-04-05) for commitment. DYES. CONCLUSION Do existing adjacent uses make uses allowed by LCDC Gost 3 or impracticable? ULTIMATE CONCLUSION © YES M Irrevocably committed to an extent that si the standards of OAR 860-04-025. YES Physically developed or boilt upon to an extent that satisfies the standards of OAR 660-04-025. у №О

 \circ Public Pecilities and Bervices : () CTHER RELEVANT FACTORS CONTRIBUTING TO CONKITMENT O YES D YES Is the subject area generally surrounded on 3 or more sides by: DONO other "built or committed areas", or O YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? 🔀 но YES Is the subject area within protection district? COMMENTS □ NO COMMENTS Cryvilk RFPO. (CONCLUSION Do available public facilities and services conclusion that the area is "committed"? YES TRUE ... TYES ₩ HO ⊠но 2. . Neighborhood and Regional Characteristics 4. Parcel Size and Ownership Patterns Do general neighborhood and characteristics contribute tonclusion that the area is "committed"? X YES □ NO ☐ less than 5 acres 10 34 1 235-10 acres Mil du per 5 acres 1 ou per 10 acres or Dmore than 20 acres

The parcel size and ownership pattern of the adjacent
Surrounding area is predominantly.

Do-20 acres

COMMENTS

CONCLUSION

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, reontribute to a conclusion that the area is 'committed';

The existing dwelling unit density of the subject area is predominantly:

THE TAXABLE PARTY OF THE PROPERTY OF THE PARTY OF THE PAR

Dwelling Unit Density

1 du per 2 acres or less

Does the predominant dualling unit density of the subject area contribute to a conclusion that the area is requality of the subject area contribute to a conclusion that the area is requality of the subject area contributes to a conclusion that the area is requality of the subject area contributes to a conclusion that the area is required to a conclusion of the subject area contributes to a conclusion that the area is required to

ined above, it is concluded that the Bubject area las

Trrevocably committed to an extent that satisff
the standards of OAR 660-04-023.

Physically developed or built upon to an extentthat satisfies the standards of OAR 660-D4-D25.

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BUILT OR COMMITTED LANDS WORK-SHEET

The second of th

- i. DESCRIPTION OF AREA
- A. Description Township 2+, Range 13, Section 25, 26, 136
 - B. Study Ares T-4
 - Acres 10 acres
 - II. INFORMATION BASE
 - A. Existing Adjacent Uses 3

 Existing Adjacent Uses 3

 Existing Adjacent Uses 3
 - · D Generally Undeveloped
 - COMMENTS
 - Area consists of the town of Arego and Surrounding adjusted passels. Percels are generally less than 5 areas in size.
- CONCLUSION .
 - Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?
 - WASEP CHO Tis the area physically developed or built upon to the extent that it satisfies the OAR 660-04-023 standard?
- ⊠ YES

4.17 表本

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- - YE5
- Юно ..
- "natural houndaries or other buffers separating the exception area from adjacent resource land"?
- COMMENTS

CONCLUSION

- the area generally "encircled"?
 - YES
- Ю но

- 3. Public Facilities and Services
- TES 🖸 YES
- Is public water generally available to the subject area?

- NO IND
 - T) YES
- Is public sever generally available to the subject area?
- M YES
- Is the subject area wit protection districts
- Д □ но
- AL COMMENTS
- Coquille RFPD
 - CONCLUSION
 - conclusion that
 - THE DYES

 - The parcel size and ownership pattern of the area is predominately!
 - ☑ less than 5 scres

- 0 D5-10 acres
 - □10-20 acres

 - □10-20 acres
 - 20-40 acres .
 - more than 40 acres
 - COMHENTS
 - CONCLUSION

 - . XYES
 - .5. Deelling Unit Density
 - The existing duelling unit density of is predominantly:

1 du per 5 acres

1 du per 10 acres or COMMENTS

CONCLUSION

N YES

. DNO

ULTIMATE CONCLUSION

BUILT OR COMMITTED LANDS WORK-SHEET

- - Description Township 29, Range 14, Section 03,04,05, 409
 - Study Area U-1
- C. Acronge 145 acros 2 acros (bog 2) 143 acros combitted
 - A. Existing Adjacent Uses S Generally Developed; or
 - Generally Undeveloped

COMMENTS

Area consists of percels less than 5 acres in size. Ares eccur adjacent to the Copyrille River and adjacent to U.S.:

Highway 101. A platted, appeared subdivision is located in this area.

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

YES

DHO .

Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard?

D YES

DHO

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

1. Encirclement

D)NO

the subject area generally surrounded 3 or more sides by:

other "built or committed areas", or

*natural boundaries or other buffers separating the exception area from adjacent tesource land?

COMMERTS

Do general neighborhood and recharacteristics contribute to conclusion that the area is "committed"?

Public Pacilities

Is public water generally to the subject area?

D YES

Is public sever generally available to the subject area?

⊠ но

DAEE,

1

- (С Д) но CONHENTS

CONCLUSION

. 50 NO

4. Parcel Size and Ownership Patterns

. Mless than 5 acres

□10-20 ecres Deore than 20 acres ...The parcel size and ownership pattern of the adjacent surrounding area is predominantly: 1010-20 scres , D20-40 acres more than 40 acres COMHENTS Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed" D NO ULTIMATE CONCLUSION CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: Does the parcel size and ownership patterns c the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"? 5. Dwelling Unit Density The existing dwelling unit density of the is predominantly: OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT I. DESCRIPTION OF AREA Is the subject area generally surroun on 3 or more sides by:

1. A. Description Township 24, Range 14, Section 15,16,201

B. Study Area U-2

C. Acrese

C. Acrose 630 across 11. INFORMATION BASE

A. Existing Adjacent Uses 3

(Constant) Developed for 12.

(Constant) Undeveloped (Constant)

(Constant) Undeveloped (Constant)

(Constant) Undeveloped (Constant)

(Constant) Undeveloped (Constant)

(Constant) Order (Constant)

(Const

CONCLUSION

make uses alloyed by LCDC Goal 3 or 4

E YES

THE REPORT OF THE PARTY OF THE

other built or committed areas", or

'natural boundaries

CONCLUSION

D10-20 acres 1 du per 10 acres or more Dmore than 20 acres CONHENTS The parcel sire and ownership pattern of the adjacent surrounding area is predominantly: M10-20 acres M20-40 acres Omore than 40 acres CONCLUSION Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"; □ NO ULTIMATE CONCLUSION a careful consideration of the information bar ove, it is concluded that the subject area is: CONCLUSION Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. 33Y (Ø □ 170 5. Deelling Unit Density The existing dwelling unit density of the subject area is predominantly: The state of the s OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITMENT 10 O 4.5 BUILT OR COMMITTED LANDS WORK-EMEET Encirclement DESCRIPTION OF AREA Is the subject area generally surrounded on 3 or more sides by: YES A. A. Description Township 24, Range 14, Section 15,16,201 B. Study Ares U-2 11. INFORMATION BASE III. JHFORMATION BASE

A.A. Existing Adjacent Uses

B. Generally Developed; for

Generally Undeveloped

COMMENTS

Characterists of dumloral percels approximately 5 and 1 approved Subdivision. COMMENTS CONCLUSION ses make uses allowed by LCDC Goal 3 or 4 NO Dives 15 the area physically developed or built littestistics the OAR 660-04-025 standard Y Y DYES Neighborhood and Regional Characteristics DNO X YES NDTELL "Existing Adjacent Uses" includes all uses in the object area described in I. above.

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[3-10 screa

()3. - Public Facilities and Syrvices **©**5-10 acres THE D YES □10-20 acres Dwore than 20 acres Is public sever generally available to the subject erea? The parcel size and ownership pattern of the <u>#djament</u> : <u>aurrounding area</u> is predominantly; T YES DO NO 10-20 acres Is the subject area within a fire protection district? D) YES □20-40 scres □ NO Dmore than 40 acres CONKENTS COMMENTS Bandon REPD CONCLUSION CONCLUSION Does the parcel mize and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is 'committed'? 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the subject area is predominately: Dwelling Unit Density . $f(\chi) =$. D1 du per 2 scres or less TO COLUMN THE THE TAXABLE PROPERTY OF THE TAXABLE PROPERTY. BUILT OR COMMITTED LANDS WORK-SHEET \bigcirc 1. DESCRIPTION OF AREA B1 du per 5 acres A. Description Township 25, Range 14, Section 17, 18, 19, 50, 31, 25, 34 D1 du per 10 acres or C. Armage 732 acres; 657 committed - 26 bag acres (31) COMMENTS A. Existing Adjacent Uses Generally Undeveloped Area consists of Several small developed forces becated adjacent to the City of Bondon. CONHENTS Approximately 75 aims located in Section 20 were proposed by hike Rufp for commitment. This area has been reand EFF by the costy and dees not meet the regularizate of OAR 160-04-05 for commitment. YES ... Do existing adjacent uses make uses allowed by ICDC impracticable? CONCLUSION M YES' Passed upon a careful consideration of the information base provided that the subject area is: D NO D Irrevocably committed to an extent that satisfies the standards of OAR, 660-04-025.

D Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. DYES . . NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. above.

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<u>Timmin selengangan a</u>

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3. Public Facilities and Services ()O(5,3)OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT Is public water generally available to the subject area? 1. Engirclement N YEE is the subject area generally surrounded on 3 or more sides by: **10 HO** other *built or committed areas*, or Is public sever generally available to the subject area? D YES "nstural boundaries or other buffers separating the exception area from adjacent resource land"? Is the subject area within a fire protection district? XX YES COMMENTS Area is surrounded by the City of Bondon to the west, □ NO a committed area to the North East, the logistic River COMMENTS to the North, and a committed one to the southwest. Banden CONCLUSION CONCLUSION Do available public facilities and services contribute to a conclusion that the area is "committed"? 'is the area generally "encircled"? 🛛 но 2. Neighborhood and Regional Characteristics - 5 Parcel Size and Ownership Patterns S SYES -Do general neighborhood and regional characteristics contribute to a conclusion that the area is 'conmitted'? The parcel size and ownership pattern of area is predominately: \bigcirc D1 du per 5 acres D5-10 acres 10-20 acres CONHENTS more than 20 acres The parcel size and ownership patte surrounding area is predominantly: 2010-20 acres D20-40 acres More than 40 acres CONCLUSION COMMENTS □ NO ULTIMATE CONCLUSION CONCLUSION ☑ Irrevocably committed to an extent that matisfies the standards of OAR 660-04-025. D Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. Dwelling Unit Density The existing dvelling unit density of the subject area is predominently:

The Training of the Control of the C

2 du per 2 acres or less

BUILT OR CONHITTED LANDS WORK-BHEET

A. Description Township 28, Range 14, Section 29, 31, 132

C. Acrenge 426 acres - 46 acres bogs = 279 acres committed

A. . Existing Adjacent Uses 4

. . B Generally Developed; or ☐ Generally Undeveloped

COMMENTS

HENTS
Area is located adjusted to the City of Bandon and
U.S., Highway 101. Parcels are generally less than 2 acres
and are for the most part developed to residential
uses. Area consists of several platted and approved subdivisions.

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard?

DO YES

D NO

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NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in I. above.

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT .

1. Encirclement

TO YES

Is the subject area generally surrounded on 3 or more sides by:

DNO

 \bigcirc

i. other 'built or committed areas', or - .

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

Arra is surrounded by the City of Bandon to the North and West and a committed area for the South,

CONCLUSION

To the area generally "encircled"?

Neighborhood and Regional Characteristics

E YES

DNO

THE STATE OF

3. Public Pacilities and Services

D YES

is public water generally available to the subject area?

The second of the second of the second

D YES:

Is public sever generally available to the subject area?

. . . .

M MO

12 YES

COMMENTS Benton REPD. D5-10 acres

0

□10-20 acres

Dmore than 20 acres

The percel size and ownership pattern of the surrounding area is predominantly:

2010-20 acres

20-40 acres

Omore than 40 acres

COMMENTS '

Surrounding properties to the North

CONCLUSION Do'swaliable public facilities and services peoplusion that the area is 'committed'?

ОкЯ

Parcel Size and Ownership Patterns

Dless than 5 acres

CONCLUSION

Does the parcel size and ownership patterns of and adjacent surrounding area, when considered relation to the lands' actual use, contributes that the area is "committed"?

1.1

X YES

□но 5. Dwelling Unit Density

The existing dwelling unit density of the subject area is predominantly:

o i . O. . BUILT OR COMMITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA 1 du per 5 acres D1 du per 10 acres A. Description Township 24, Range 14, Section 32 134 Study Area U-5 COMMENTS himage to aims 11. INFORMATION BASE A. Existing Adjacent Uses →

☑ Generally Developed; or CONHENTS Area consists of two small developed areas Southeast of Bandon, Parcels are approximately 5 acres in size and CONCLUSION for the most port have durlings on them Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area fis "committed"? N YES □ NO CONCLUSION ULTIMATE CONCLUSION Do existing adjacent uses make uses allowed by LCDC Go al 3 or 4 impracticable? D YES ☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. D HO Is the area physically developed or built upon to the it satisfies the OAR 660-04-025 standard? M YES M Physically developed or built upon to an extent that matisfies the standards of OAR 660-04-025. DHO i. Hirki. NOTE: **:**5 · , **建筑是**

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	Section 2	etakir bununui 1762ê	PERSONAL PROPERTY OF THE PARTY	Transferring by the second	
7.2					
ı Ş			TORE CONTRIBUTING TO COMMITMENT	O Public Pacilities a	(4.75 B)
	1	1. Encirclement		☐ YES	Is public water generally available to the subject area?
		150 NO	Is the subject area generally surrounded on 3 or more sides by:	₩O	
ري. دور			i. other built or committed areas, or	☐ YES	is public sever generally available to the subject area?
			ii. *natural boundaries or other buffers separating the exception area from adjacent	™ NO	
		COHNENTS	resource land"?	⊠ YES	Is the subject area within a fire the protection district?
	7			□ NO COMHENTS	
No.				Bendon REPO.	
1.5					
		Y CONCLUSION To the area general:	ly *encirclee*7	CONCLUSION	
		□ YES		Do available public faction conclusion that the area	llities and services contribute to a si conmitted?
S. S.				DYES	
		N YES	nd Regional Characteristics Do general neighborhood and regional	₩NO Parcel Size and Over	nership Patterns

AND THE REPORT OF THE PARTY OF

The parcel size and ow area is predominately:

Dless than 5 acres

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the subject

图 数据的开始程序型的形式的形式

Ml du per & aures D10-20 acres D1 du per 10 soras or Dmore than 20 acres CONHENTS The parcel wire and ownership pattern of the adjacent surrounding area is precominantly: \$20-40 acres Omore than 40 acres COMMENTS CONCLUSION Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? X YES OK [] 111. ULTIHATE CONCLUSION CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"? M Irrevocably committed to an extent that matinfies the standards of OAR 660-04-025. YES. Physically developed or built upon to an extent' that satisfies the standards of OAR 660-04-025. , 🗆 110 5. Dwelling Unit Density, The existing duelling unit density of the subject area is predominantly: Sall du per 2 acres or less' The second secon The state of the second st O OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT PUILT OR COMMITTED LANDS WORK-SHEET Encirclement Is the subject area generally surrounded on 3 or more sides by: DESCRIPTION OF AREA X YES A. Description Township 25; Range 16, Section 36 DNO i. other "built or committed areas", or Study Area V-1 "natural boundaries or other buffers separating the exception area from adjacent resource land"? C. Actrage 345 acres; 195 acres committed in information base A. Existing Adjacent Uses —

Generally beveloped; or (

Generally Undeveloped

Company to the c is corrounded by the City of Bondon on the Worth CONHENTS and west, and by a commercial area to the best COMMENTS Area consists of small lats of subdivisions adjacent to the City of Bandon; Various lots are currently duraped for reidential uses. Appreximately 50 errors proposed by Mike Ropp for commitment has been send Erveto by the county and dark bat must the required of OAR 660-04.005 for commitment. CONCLUSION Do existing adjacent uses make uses allowed by LCDC Gmal 3 or 4 impracticable? N YES the area generally "encircled"? Д □но ∴ X YES □ио Is the area physically developed or built it satisfies the OAR 660-04-025 standard? (D YES 2. Heighborhood and Regional Characteristics Do general neighborhood and in characteristics contribute to conclusion that the area is "committed"? D NO □ HO 0

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Di-10 acres

desired the definite and the transfer of the second of the

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It public water generally available to the subject area? TYES CO HO D YES M 110 Is the subject area within a fire protection district? ØYE5 □ HO COMMENTS To available public facilities and services contribute to a conclusion that the area is "consitted"? TYES . ស្ត្រាល 4. Parce) Size and Ownership Fetterns The parcel size and ownership pattern of the subject prec is prodominately: Dless than 5 acres CONCLUSION N YES Ø □ #0 HE HITTHATE CONCLUSION Outlined above, it is concluded that the subject were issued in the standards of OAR 660-04-025.

☐ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. he standards of OAR 660-04-025.

The physically developed or built upon to an extent that satisfies the stendards of OAR 660-04-025.

Public Facilities and Bervices

D5-10 acres □10-20 acres ' more then 20 acres The parcel size and ownership pattern of the adjacent surrounding ares is predominently: 1010-20 acres □20-40 acres more than 40 acres CONCLUSION Does the percel size and connerchip patterns of the subject and officent surrounding great when considered together it relation to the lands' actual use, contribute to a concit that the area is "committed"; YES.

The existing duelling unit density of the subject is predominantly:

BUILT OR COMMITTED LANDS WORK-SHEET

1. DESCRIPTION OF APER

D110

5. Prelling Unit Density

. ML du per 2 acres or less

Description Township 24, Range II, Section 27,28, 37, 134;

B. Study Area Y-1

C. Acres 370 acres

A. Existing Adjacent Uses -.

Generally Developed; or Generally Undeveloped

COMMENTS

Small developed parcels.

STY E

Д по но −

N YES

D NO

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT (1 3. Public Facilities and Services O ... Is public water generally available to the subject eres? * Prefredement Is the subject area generally surrounded on 3 or more sides by: D YES 50 NO . **⊠**но 1. is public sever generally available to the subject area? "natural boundaries or other buffers separating the exception area from adjacent resource land"? NO (S DYES Is the subject area within a fire protection district? CORMENTS Ø NO COMMENTS CONCLUSION CONCLUSION ls the area generally "encircled"? Do available public facilities and services contribute to a conclusion that the area is 'committed'? YES 58 NO Мио 2. Neighborhood and Regional Characteristics Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? 4. Parcel Size and Ownership Patterns ATE S The parcel size and ownership pattern of the <u>subject</u>... area is predominately: Distor Net ... ○ □ NO 10 Miess than 5 acres The state of the s $\gamma_{i,j} = 1$ C5-10 acres 1 du per 5 acres - [10-20 acres Il du per 10 acres or more pore than 20 acres COMMENTS The percel size and ownership pattern of the adjacent surrounding area is predominantly: A. . □20-40 acres Donore than 40 acres COMMENTS CONCLUSION ₩ YES 🗅 но ULTIMATE CONCLUSION CONCLUSION boes the parcel ☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. E YES _ ino 5. Delling Unit Density O: The existing dwelling unit density of the subject area is predominantly: ⊠1 du per 2 acres or less

(2.11.93%) (2.15)

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BUILT OR CONHETTED LANG WORK-SHEET

- DESCRIPTION CHAREA
 - A. Description Township 21, Range 1, Section 34 2 36
- B. Study Area X.
- c. Actionge 90 news
- 11. INFORMATION DAST
 - . Existing Adjacent Dacs in Gracefully Developed; or
 - ☐ Generally Undeveloped

COMMENTS

MILLIANTS
Acro consists of developed parcels adjacent to Highway 42 cast of Bridge, Parcels are appreciably 6 acros or less to size

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

D YES

DNO

Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard?

D YES

□но

O

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IN NOTE: "(risting Adjacent Uses" includes all uses in the subject area described in 1. above.

B. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

1. Encirclement

☐ YES

is the subject area generally surrounded on 3 or more sides by:

other "built or committed areas", or

 "natural houndaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

CONCLUSION

Is the area generally "encircled"?

O YES

₩ NO

Neighborhood and Regional Characteristics

X YES

Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

D NO

20.187

3. Fublic Facilities and Services

D YES

is public water generally available to the subject area?

Carrier 18 18 18 18 18 19 20 11 11

D NO.

D YES

Is public sever generally available to the subject area?

o# (₫

₽...

Is the subject area within a fire protection district?

(2) 110

COMMENTS

DS-10 acres

□10-20 acres

Dmore than 20 acres

The parcel size and ownership pattern of the adjecent surrounding area is predominantly:

□10-20 acres

□20-40 acres

⊠more than 40 acres

COMMENTS

CONCLUSION

Do available public facilities and services contribute to a conclusion that the area is "committed"?

DYES

— ⊠ no

4. 1arcel Size and Ownershi: Fatterns

The parcel size and ownership pattern of the subject erea is predominately:

1 less than 5 acres

CONCLUSION

Does the parcel size and ownership patterns of the subject and edjacent surrounding area, when considered tagether in relation to the lands' actual use, contribute to a conclusion that the area is 'committed'.

YES

□ NO

5. Deelling Unit Density

The existing dwelling unit density of the subject area is predominantly:

[]1 du per 2 acres or less

😅 🔲 1 du per 5 acres

1 . Di du per 10 acres or more

COHMENTS

CONCLUSION

Does the reedominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"?

MYES

D NO

ULTIKATE CONCLUSION

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

☑ Irrevocably committed to an extent that satisfies, the standards of OAR 660-04-025.

Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

BUILT OR COMMITTED LANDS WORK-SHEET

1. DESCRIPTION OF AREA

Description Township 29, Runge 12, Section 03,04, 09, 110

Study Area 4-1

160 acres

C. ALTERAGE 16

A. Existing Adjacent Uses I

Generally Developed; or

Generally Undeveloped

Area consists of scaral settlend small developments North of Myrtle Point, Parels are governelly developed to residential use's and 5 acres or less in size,

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal.3 or 4 impracticable?

TO YES

□ но

ls the area physically doveloped or built upon to the extent that it satisfies the OAR 660-04-025 standard?

E) YES

DNO

NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. above.

D. OTHER RELEVANT PACTORS CONTRIBUTING TO COMMITMENT

[] YES

is the subject area generally surrounded on 3 or more sides by:

THE THE PARTY OF T

Вио

other built or committee areas, or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

CONCLUSION

Is the area generally "encircled"?

TYES

53 NO

. Neighborhood and Regional Characteristics

Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

D NO

 \circ

Public Pacilities and Services

TE8

Is public water generally available to the subject area?

T YES

Is public sewer generally available to the subject area?

DN X

DYES

Is the subject area within a fire protection district?

. 🖾 но

COMMENTS

CONCLUSION

Do available public facilities and services contribute to a conclusion that the area is "committed"?

M NO

4. Parcel Size and Dunerable Potterns

The parcel size and concership patturn of the <u>aubject</u> orea is predominately:

□loss than 5 scres

Public Pacilities and Services □5-10 acres D YES Is public water generally available to the subject area? □10-20 acres IN NO more than 20 acres □ YES la public newer generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: 1210-20 acres DO YES . DNO more than 40 acres COMMENTS Copulk RFCD COMMENTS CONCLUSION CONCLUSION . . DYES - Дио ₩ YES 4. Parcel Size and Ownership Patterns □ NO The parcel size and ownership pattern of the subject area is predominately: 5. Dwelling Unit Density The existing dwelling unit density of the subject area is predominantly: □ Dless than 5 acres, D1 du per 2 acres or less

THE THE PARTY OF T BUILT OR CONMITTED LANDS WORK-SHEET

"我们是不是一个

CONCLUSION

M YES

D #0

DETINATE CONCLUSION

concluded that the sub

☑ Irrevocably conmitted to an extent that satis the standards of CAR 660-04-025... xtent that satisfies

I. DESCRIPTION OF AREA

Description Township 29, Range 12, Section 21, 22, 27,26, 133

Study Area Y-3

Transmit and the

Acresc

II. INFORMATION BASE

A. Existing Adjacent Usos J

Generally Developed; or

Generally Undeveloped

Area consists of small developed area with possels below 2 ours or less in size located South of Myrth Phintips

CONCLUSION

E YES

□ NO · ·

YES

NOTE: "Existing Adjacent Daes" includes all uses in the subject area described in 1. above.

J.O. .. 05-10 acres □10-20 acres Dmore than 20 acres CONHENTA The parcel size and ownership pattern of the adjacent surrounding area is predominantly: ₩10-20 acres □20-40 acres Daore than 40 acres COMMENTS CONCLUSION Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "consisted" X YES D NO 111. ULTIMATE CONCLUSION CONCLUSION Does the parcel size and ownership patterns of and adjacent surrounding area, when considered relation to the lands' actual use, contribute that the area is "committed"? 660-04-025. D YES □ NO ... 5. Dwelling Unit Density The existing dwelling unit density of the subject area is predominantly: D1 du per 2 acres or less MANAGEMENTAL PROGRAMMENTAL PROGRAMMENTAL PROGRAMMENTAL PROGRAMMENTAL PROGRAMMENT NO. 17.070 CO. N. C. C. C. C. BUILT OR COMMITTED LANDS WORK-SHEET () B. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT I DESCRIPTION OF AREA TA. Description Township 29, Range 12 Sochien 07,04,17, 118 subject area generally surrounded more sides by: B. A Study Area Y-3 other "built or committed " areas", or 11. THEORNATION BASE "natural boundaries or other buffers separating the exception area from adjacent resource land"? Existing Adjacent Usos 1 Generally Developed; or COMMENTS

CONTINUENTS

Of Several Ecutived small developments west

of Nyeth Paint, Parents are general development to recidential

Uses and 5 occus or less in sisce COMMENTS CONCLUSION Do existing adjacent uses impracticable? allowed by LCDC Goal 3 or 4 M YES CONCLUSION Is the area 'generally 'encircled' Is the area physit satisfies the ☐ YES ⊠ NO Ø TES □ NO 2. . Neighborhood and Regional Character M YES PROTE: "Existing Adjacent Uses" includes all uses in the aubject area described in I. above.

WEST WEST

THE RESERVE OF THE PROPERTY.

Commence of the Commence of th THE PARTY OF THE PROPERTY OF THE PROPERTY. PRINCE THE LEGISLES AND A Walter Commencer B. OTHER RELEVANT FACTORS CONTRIBUTING TO CONNITMENT 0 3. Public Facilities and Services Is public water generally available to the subject area? 1. Encirclement D YES D YES **⊠**NO i. other *built or committed areas*, or Is public sever generally available to the subject area? YEP "natural boundaries or other buffers separating the exception area from adjacent resource land"? 🖾 но is the subject area within a fire protection district? □ YES COMMENTS Ø NO COMMENTS on relative CONCLUSION Is the area generally "encircled"? Do available public facilities and services conclusion that the area is "committed"? Heighborhood and Regional Characteristics - MO Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? 4. Parcel Size and Ownership Patterns The parcel size and ownership pattern of the subject area is predominately: D NO Dless than 5 acres ESCHALL THE THE PARTY OF THE PA THE PROPERTY OF THE PARTY OF TH 0 D5-10 acres **0** 10-20 acres

CONCLUSION

It hoes the parcel size and ownership patterns of the subject france adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"?

DYES

. Пно

5. Dwelling Unit Density

The oxisting dwelling unit density of the subject area is predominantly:

ACTION OF THE PROPERTY OF THE

121 du per 2 acres or less

□1 du per 10 acres or more

CONHENTS

CONCLUSION

Does the predominant dwelling unit density of the subject

...

⊠ yes

D HO

III. ULTINATE CONCLUSION

 \bigcirc

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

☑ Irrevocably committed to an extent that matisfiest the standards of OAR 660-04-025.

Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

.O BUILT OR COMMITTED LANDS WORK-SHEET DTHER RELEVANT FACTORS CONTRIBUTING TO CONKITHENT 1. Encirclement DESCRIPTION OF AREA ☐ YES A. Description Township 24, Range 12, Section 31, 32, 433, Is the subject area generally surrounded on 3 or more sides by: ЮиO other "built or committed areas", or ___ B. SEUDY ATER Y-4 c. Acresc 150 acres ii. *natural boundaries or other buffers separating the exception area from adjacent resource land*? II. INFORMATION BASE A. Existing Adjacent Uses 3 COMMENTS Generally Undeveloped COMMENTS Area consists of the town of Broadbent and adjacent developed residential areas. . CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? CONCLUSION 📝 🖸 YES , 🗆 но O YES Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? Reighhorhood and Regional Characteristics Do general neighborhood and regional characteristics contribute to a vi-conclusion that the area is "committed"? X YES □ NO AND THE CONTRACTOR OF THE PARTY OF THE PARTY OF THE PARTY. **建的物物品** C3: Public Pacilities and Services □5-10 acres' YES 10-20 acres . more than 20 acres The parcel size and ownership pattern of the adjacent surrounding area is predominantly: Is public sever generally available to the subject area? D YES Ø ×o E10-20 acres Is the subject area within a fire protection district? DYES □20-40 scres Profession district. DNO . Dmore than 40 acres COMMENTS COMMENTS . N (CONCLUSION CONCLUSION

□ но

5. Dwelling Unit Density

1 du per 2 acres or

The existing duelling unit density of is predominantly:

TYES

والمنطقة والمنطقة والمنازي والمنازين والمستران والمنازي والمنازي والمنازي والمنازية والمنازية والمنطقة

BUILT OR CONHETTED LANDS HORE-SHEET

- I. DESCRIPTION OF AREA
 - Description Temachip 30, Ronge 19, Section 01
 - B. Study Area Cf-1
- C. Acting 55 nires
- - A. Existing Adjacent Uses -🔀 Generally Developed; or
 - Generally Undeveloped
 - COMMENTS

Arens consist of Scattered parkels located along U.S. Highway 101 which are developed to residential uses.

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

M YES

D NO

Is the area physically developed or built upon to the extent that it satisfies the CAR 660-04-025 standard?

M YES

D 110

. .

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10

NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. allove.

Public Facilities and Services

TYES

is public water generally available to the subject area?

Ю но

is public sever generally available to the subject area?

⊙и,⊡

D YES

In the subject area within a fire protection district?

□ NO

COMMERTS

Innien RIPA

CONCLUSION

Do available public facilities and services contribute to a conclusion that the area is "committed"?

DYCS

[Z.1:0

4. Fercel Size and Owner ship Patterns

The parcel size and ownership pattern of the <u>subject</u> atea is predominately:

Cless than 5 acres

OTHER RELEVANT FACTORS CONTRIBUTING TO CONSITNENT

DYES. KINO

0

Is the subject area generally surrounded on 3 or more sides by:

i. other *built or committed areas*, or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

CONCLUSION

is the area generally "encircled"?

D YES

Ю но

2. Reighborhood and Regional Characteristics

□ NO

Do general neighborhood and regions characteristics contribute to a conclusion that the area is "committed"?

□5-10 acres

□10-20 acres

more than 20 acres

The parcel size and ownership pattern of the adjacent surrounding area is predominantly:

Ø10-20 acres

- D20-40 acres

Driore than 40 acres

CONCLUSION

COMMENTS

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the land' actual use, contribute to a conclusion that the area is "committed"?

(X) YES

D1:0

5. Deelling Unit Density

The existing dwelling unit density of the subject $\pm r \cos$ is precominantly:

101 du per 2 acres or less

1 du per 5 peres

D1 du per 10 acres or more

COMMENTS

CONCLUSION

N YES

□ 110

111. ULTIRATE CONCLUSION

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

- Irrevocably committed to an extent that matisfies the standards of OAR 660-04-025.
- D Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

BUILT OR COMMITTED LANDS WORK-SHEET

1. DESCRIPTION OF AREA

- Description Township 30, Range 15, Section
- B. Study Area (C-)
- Acresse

II. INFORMATION HASE

- A. Existing Adjacent Uses **

 **Discentially Developed; or
 - Generally Undeveloped

COMMENTS

Amon crosses of developed small parcels lacated adjacent to Certi Lake.

. CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

YES X

□ NO *

Is the area physically developed or built upon to the extent that it satisfies the DAR 660-04-025 standard?

TO YES

D110

 $\langle \cdot \rangle$

Augus es

()

] NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in], above.

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

1. Encirclement

D YES

第3月gm

1s the subject area generally surrounded on 3 or more sides by:

Юно

other "built or committed areas", or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS -

Public Facilities and Services

O YES

Is public water generally available to the subject area?

🗵 но

Is public sewer generally available to the subject area?

NO

DYES

Is the subject area within a fire protection district?

□ NO

COMMUNTS

Bonden REPD

CONCLUSION

Do available public facilities and services contribute to a conclusion that the area is "committed"?

□YES

Parcel Size and Opnorship Patterns

The parcel size and ownership pattern of the <u>subject</u> area is predominately:

☑ less than 5 acres

CONCLUSION

O YES [2] NO

No general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

is the area generally "encurcled"?

D 1:0

Brighborhood and Personal Characteristics

- 1. DESCRIPTION OF AREA
 - A. Description Tourship 24, Range 15, Section 12 113
 - B. \ Study Area AA-1
- C. Acresc 56 acres
- - A. Existing Adjacent Uses 3 Generally Developed; or
 - Generally Undeveloped

Area consists of relatively small developed percels South of Benjer adjoint to U.S. Highway 101,

CONCLUSION

оч 🔲

Is the area physically developed or built upon to the extent that φ it satisfies the OAR 660-04-025 standard?

D 110

विकार नारता है।

NOTE: "Existing Adjacent Uses" includes all uses in the subject erea described in 1. above.

THE " LINE OF TAXABLE S. THE HOTEL

D YES

Is the subject area generally surrounded on 3 or more sides by:

₽NO

- other "built or committed acces", or
- *natural boundaries or other buffers separating the exception area from adjacent resource land*?

COMMENTS

Is the area generally "encircled"?

2. Neighborhood and Regional Characteristics

□ 1i0

3. Public Facilities and Services

THE REPORT OF THE PROPERTY OF

⊠ но

YES .

Is public sever generally available to the subject area?

Ğ4 🔯 ,

DHO"

COMMENTS Bandon REPD.

CONCLUBION

DYES

4. Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the <u>subject</u> area is predominately:

. 🛭 less than 5 acres

C3-10 acres

⊠10-20 acres

□20-40 acres

more than 40 acres

COMMENTS

YES

 \mathcal{O}

5. Dwelling Unit Density

The existing dwelling unit density of the subject area is predominantly:

o not well within a the British that is a first of the surficiency of the mean than the CALL SAME CARE BUILT OR CONSITTED LANDS WORK-SHEET 1. DESCRIPTION OF AREA D1 du per 5 acres Description Township 24, Range 15, Sertim 12, \$13 D) du per 10 acres or sore C. Acres 2 215 neres - 15 acres bags + 200 ours committed
11. INFORMATION BASE COMMENTS A. Existing Adjacent Uses 1 B Generally Developed; or Cenerally Undeveloped PHIRITS
Area consists of developed parents appreximately Source on size located areas of Brodley Lake and adjacent to Brodley Lake market Rand. Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"? . CONCLUSION - Вно Do existing adjacent uses make uses allowed by LCDC Goal 3 or 6 impracticable? ULTIMATE CONCLUSION YES. Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: □ NO Is the area physically developed or built upon to the it satisfies the OAR 660-04-025 standard? Irrevocably convitted to an extent that satisfies the standards of OAR 660-04-025. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. D NO 0 N HOTE: "Existing Adjacent Uses" includes all uses subject area described in 1. above. O

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

DYES

Is the subject area generally surrounded on 3 or more sides by:

Control of the Contro

ÐNO

 $\mathbf{i} \cdot \mathbf{O} = \mathbf{i} \cdot \mathbf{i}$

other 'built or committed areas', or

"natural boundaries or other buffers separating the exception area from adjacent resource land"?

COMMENTS

CONCLUSION

. Is the area generally "encircled"?

O YES

Neighborhood and Regional Characteristics

Do general neighborhood and regions: characteristics contribute to a conclusion that the area is "committed"?

D NO

Public Facilities and Services

Is public water generally available to the subject area? D YES

D HO

C

Is public sever generally available to the subject area?

Is the subject area within a fire protection district? DYES.

U HO

COMMENTS. Binden REPD.

CONCLUSION

Do svailable public facilities and servic conclusion that the erea is "committed"?

TYES

4. Parcel Size and Ownership Patterns .

The parcel size and ownership pattern of the <u>subject</u> area is predominately:

Dless than 5 acres

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclus that the area is 'committed'? X YES 5. - Dwelling Unit Density The existing dvelling unit density of the subject area is predominantly: D1 du per 2 acres or less ्रे प्रतिकारिक विकास के जिल्ला है है । जिल्ला है ज .0 BUILT OR COMMITTED LANDS WORK-SHEET I. DESCRIPTION OF AREA A. Description Township 29, Range 15, Section 25, 1 36 B. Study Area AA-3 C. Acresse 612 acres II. INFORMATION BASE A. Existing Adjacent Uses . Generally Undeveloped COMMENTS Area consists of Several Small developed parcels located adjacent to U.S. Highway 101 and Laurel Lake, Tay Let 100 located in Section 36B has been proposed by hills Rept for commitment. The country has something build control for it does not much the criteria of ONO 660-04-005 for commitment. CONCLUSION To existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? М УЕБ Пно

10-20 acres

☐20-40 acres
☐more than 40 acres

COMMERTS

The parcel size and ownership pattern of the adjacent aurrounding area is predominantly:

CONCLUSION

Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed TYES

NO

ULTIMATE CONCLUSION

Based upon a careful consideration of the information base outlined above. It is concluded that the subject area is:

\[
\begin{align*}
\text{ I revocably committed to an extent that satisfies the standards of OAR 660-04-025.}

\end{align*}
\]

Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025.

ONCLUSION

1. other "built or committed areas", or

11. natural boundaries or other builters separating the exception area from adjacent resource land"?

COMMENTS

CONCLUSION

1s the area generally "encircled"?

YES

NO

2. Neighborhood and Regional Characteristics

The property of the

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

TYES

s the subject area generally surrounded as 3 or more sides by:

is public water generally available to the subject area? □10-20 acres B) NO Dmore than 20 acres YES Is public sever generally available to the subject area? The parcel size and ownership pattern of the adjacent aurrounding area is predominantly: ₩10-20 acres Is the subject area within a fire protection district? □20-40 acres DNO COMMENTS Dmore than 40 acres Benden COMMENTS CONCLUSION CONCLUSION . Do available public facilities and services commtribute to a conclusion that the area is "committed"? Does the parcel size and ownership patterns of the and adjacent surrounding area, when considered togerelation to the lands' actual use, contribute to a that the area is 'committed'? The second of the second □YES
□NO
4. Parcel Size and Concreting Patterns M YES The parcel size and ownership pattern of the <u>subject</u> eree is predominately: . 🗀 но 5. Dwelling Unit Density Dless than 5 acres The existing dvelling unit density of the subject area is predominantly: ☑1 du per 2 acres or less 1.50 17 12 19 17 0 \overline{C} BUILT OR COHMITTED LANDS WORK-SHEET □1 du per 5 acres 1 du per 10 acres or more 1. DESCRIPTION OF AREA A. Description Township 30, Range 12, Section 23 COMMENTS B. Study Area G6-1 C. Acres El acres A. Existing Adjacent Uses I M Generally Developed; or Generally Undeveloped COMMENTS CONCLUSION Area consists of the town of Gaybord which are developed percels larger than 5 ours in size located adjacent to Yellow Creek road, В уев □ но CONCLUSION □ NO

TIL. <u>ULTIMATE CONCLUSION</u> Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable? Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: ₩ YES D NO ☐ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. Thysically developed or built upon to an extent that setisfies the standards of OAR 660-04-025.

()

□5-10 acres

□ NO

The state of the s

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the construction of the co

2. Public Pacilities and Bervices

D YES

Sty Com y (6)

\mathbf{C} 3. Public Facilities and Services OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT O YES Is public water generally available to the subject area? 1. Encirclement Is the subject area generally surrounded on 3 or more sides by: Ø NO TYES Юио other "built or committed areas", or i. is public sever generally available to the subject area? T YES "natural boundaries or other buffers separating the exception area from adjacent resource land"? M NO Is the subject area within a fire protection district? D YES COMMENTS (X) NO COMMENTS CONCLUSION CONCLUSION Do available public facilities and services contribute to a conclusion that the area is "committed"? is the area generally "encircled"? D YES MYES Reighborhood and Regional Characteristics Parcel Size and Ownership Fatterns Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"? Ø YES The parcel size and ownership pattern of the <u>subject</u> area is predominately: Dless than 5 acres THE SAME AS A SAME WAS A STATE OF THE SAME A CONTRACT OF THE PARTY OF THE THE COURSE OF THE PARTY OF THE والماء والمواجع جزائر والمحاطفة 3.5 \bigcirc ⊠5-10 acres □ 10-20 acres 1 du per 10 acres or more Dmore than 20 acres The percel size and ownership pattern of the adjacent surrounding area is predominantly: - D10-20 acres CONHENTS - D10-20 acres 20-40 acres more than 40 acres COMMENTS CONCLUSION 14 10 DO YES □ №0 . - ULTIHATE CONCLUSION CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is 'coomitted'? Irrevocably committed to an extent that satisfies the standards of DAR 660-04-025.

Physically developed or built upon to an extent that satisfies the standards of DAR 660-04-025.

O

M YES

1 du per 2 acres or less

The existing dvelling unit density of the subject area is predominantly:

Control of the American Replacement of the Control
BUILT OR CONHITTED LANDS WORK-SHEET

I. DESCRIPTION OF AREA

0

A. . Description Township 30, Range 15, Section 01

B. Study Area CC-1

55 acres C. Acreage

Existing Adjacent Uses -☑ Generally Developed; or □ Generally Undeveloped

COMMENTS

Arens consist of scattered pareets located along U.S. Highway to which are developed to recidential uses,

CONCLUSION

Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 impracticable?

₩ YES .- .

D NO

Is the arra physically developed or built upon to the extent that it satisfies the CAR 660-04-025 standard?

DNO .

J NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in I. above.

1

OTHER RELEVANT FACTORS CONTRIBUTING TO CONHITHENT

Encirclement

O YES E)NO

0

Is the aubject area generally surrounded on 3 or more sides by:

i. other "built or committed areas", or

*natural boundaries or other buffers separating the exception area from adjacent resource land*7

COMMENTS

CONCLUSION

is the area generally "encircled"?

TYES

DO NO

Neighborhood and Regional Characteristics

YES.

Do general neighborhood and regions characteristics contribute to a conclusion that the area is "committee"?

TIND

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AND DESCRIPTION OF THE PROPERTY OF STREET, AND THE PROPERTY OF
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 \circ

3. Public facilities and Services

T YES

Is public water generally available to the subject area?

रामकार्या कार्या कराया है। यह स्वर्थ कराया है। विकास कराया है।

Ø NO

D YES

Is public sever generally available to the subject area?

D) NO

D YES

Is the subject srea within a fire protection district?

□ NO

COMMENTS
Innden REPD.

□5-10 acres

□10-20 acres

Omore than 20 acres

The parcel size and ownership pattern of the adjacent surrounding area is predominantly:

Ø10-20 acres

Doore than 40 acres

COMMENTS

Do available public facilities and services contribute to a conclusion that the area is "committed"?

MYES

Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the <u>subject</u> area is predominately:

1000

Dless than 5 acres

CONCLUSION

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclusion that the area is "committed"?

MYES

□ KO

5. Duelling Unit Density

The existing dwelling unit density of the subject area is predominantly:

1 du per 5 acres

□1 du per 10 acres or more

COMMENTS

CONCLUSION

Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed"?

MYES

D 110

ULTIMATE CONCLUSION

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025.

The state of the said for the said of the

BUILT OR COMMITTED LANDS WORK-SHEET

1. DESCRIPTION OF AREA

A. Description Township 20, Range 15, Section 11

B. Study Area CC-3

C. Acres 3 35 acres

Existing Adjacent Uses -

S Generally Developed; or

D Generally Undeveloped

COMMENTS

Arm consists of developed small parcels boented adjacent to Conft Lake.

. CONCLUSION

Do existing adjacent uses make uses alloved by LCDC Goal 3 or 4 impracticable?

D YES

Is the area physically developed or built upon to the extent that it satisfies the DAR 660-04-025 standard?

YES.

Пко

()

C

) NOTE: "Existing Adjacent Uses" includes all uses in the subject area described in 1. above.

OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT

Encirclement

YE5

Is the subject area generally surrounded on 3 or more sides by:

DNO

The transfer

O

other "built or committed areas", or

'natural boundaries or other buffers separating the exception area from adjacent resource land'?

COMBENTS

3. Public Facilities and Services

YE5

Is public water generally available to the subject area?

Ю но

D YES

Is public sever generally available to the subject area?

Ø NO

Is the subject area within a fire protection district?

OM []

COMMENTS

CONCLUSION

TIYES

Bonden CECD

CONCLUSION

Is the area generally "encircled"?

☐ YES

₩ RO

Brighborhood and Regional Characteristics

F. YES

Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

(<u>2</u>) 110

Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the <u>subject</u> area is predominately:

Do available public facilities and services contribute to a conclusion that the area is "committed"?

☑ less than 5 acres

(1 Ø D5-10 acres D1 du per 5 acres D10-20 scres []more than 20 acres 12010-20 acres □20-40 acres more than 40 acres COHMENTS CONCLUSION Does the predominant dwelling unit density of the subject area contribute to a conclusion that the area is "committed M YES D NO ing of the con-tion in the fire 111. ULTIMATE CONCLUSION 227 %. · · Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: CONCLUSION Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclust that the area is 'committed'? ☑ Irrevocably committed to an extent that satisfies
the standards of OAR 660-04-025. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-023. □но 5. Delling Unit Density The existing dwelling unit density of the subject area is predominantly: ⊠1 du per 2 acres or less 474 B. OTHER RELEVANT FACTORS CONTRIBUTING TO COMMITMENT BUILT OR COMMITTED LANDS WORK-SHEET 0 1. Encirclement YES Is the subject area generally surrounded on 3 or wore sides by: I. DESCRIPTION OF AREA A. . Description Township 31, Range 13, Section 12,13, 234 ₹)NO other "bui't or committed areas", or i. B. Study Area DD-1 C. Acres 42 acres
11. INFORMATION DASE ii. "natural houndaries or other buffers separating the exception area from adjacent resource land"? A. WEXISTING Adjacent Usos 1 A. Existing Adjacent Uses]

A. Existing Adjacent Uses]

Generally beveloped; or

GONNEITE

Area consists of a few deceloped parcels located adjacent to the city of forces. COMMENTS C. CONCLUSION Do existing adjacent uses make impracticable? uses allowed by LCDC Goal 3 or 4 CONCLUSION Is the area generally "encircled"? ⊠ YES O YES Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? - DO NO 2. . Neighborhood and Regional Characteristics -YES D YES Do general neighborhood and regional characteristics contribute to a conclusion that the area is "committed"?

Complete Control

NOTE: "Eristing Adjacent Uses" includes all uses in the bject area described in I. above.

□ NO

Public Facilities and Services Ø 5-10 acres Is public water generally available to the subject area? T YES □10-20 acres ₩ но Dmore than 20 acres Is public sewer generally available to the subject area? The parcel size and ownership pattern of the adjacent surrounding area is predominantly: T YES □10-20 acres Is the subject area within a fire protection district? DYES □20-40 acres Ø NO Mmore than 40 acres COMMENTS COMMENTS CONCLUSION Do available public facilities and services contribute to a conclusion that the area is "committed"? Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actus! use, contribute to a conclusion that the area is 'committed'? ON[4. Ø YES 4. Parcel Size and Ownership Patterns D-clling Unit Density The existing duciling unit density of the subject area is predominantly: less than 5 acres A. Marine and the same of the same of the same of The state of the s BUILT OR COMMITTED LANDS WORK-SHEET \mathbf{C} 1 du per 5 acres 1. DESCRIPTION OF AREA Description Township 31, Range 12, Section 13, 1 24 D1 du per 10 acres or more - - COMHENTS B. Study Area DD-2 C. Acres 42 acres Existing Adjacent Uses 1. . . Generally Developed; or Generally Undevaloped COMMENTS Area consists of small developed parcels located adjoint to the City of Powers YES ... □×0 CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or impracticable? · ULTIMATE CONCLUSION Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is: M YES ☑ Irrevocably committed to an extent that satisfies
the standards of OAR 660-04-025. Ø YES [] NO

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••	1. Incirclement		• ,	1	[] YEN	in public water q	onerally available
	D) ER	is the subject area constally	nurrounded		Mario.	to the subject at	0 # 7
•	Dino	on 3 or more midum by: i. other "built or cor areas", or	mitted	1	№ но		
•					(i) YES	to the public arout of	unurally available us?
	•	ii, "natural boundarie: buffers separating exception area fro	the		☑ 110		**
	CONHENTS	resource land"?			☐ YES	is the subject as protection distri	ea within a fire ct?
	COMENTE				. Юно		
					COMMENTS		
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•	CONCLUSION		å		CONCLUSION		•
30.4	Ta the area gene	erally *encircled*?	•		Do available public f conclusion that the a	scilities and servic res is "committed"?	es contribute to i
t veri	⊠ NO		1				•
	2 Walahharhar	od and Regional Characteristics			⊠ho Dae2	•	
	2. Neighborhoo	Do general neighborhood	and regiona:	İ	4. Parcel Size and	Ocnership Patterna	
=		characteristics contril conclusion that the are "conmitted"?	oute to a		The parcel size	and ownership patter	n of the <u>subject</u>
. 63	О НО	Committee		C			
					Dless than 5 acre	•	
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or The Year	en en en en en en en en en en en en en e	فسنعفظ فيستسيدها المتعلقات					
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	D5-10 acres		•	.!	⊠1 du per 5 acres		
	□ 10-20 acres	•	¥		1 du per 10 acres	t or more	
•	more than	· ·			COMMENTS		
	The parcel size surrounding are	and ownership pattern of the ad a is predominantly:	jacent	-			
	∑10-20 acre			1		-	
	•				•		
.:	□20-40 acre						•
	nore than	40 acres			•		•
	CONHENTS		·		CONCLUSION Does the predominant	Auntino unit Augeit	u of the subject
. !				i,	area contribute to a	conclusion that the	area is "committed"?
•				:	YES		
				•	□но		
	•	•		111.	ULTIMATE CONCLUSION		
	CONCLUSION.				Based upon a careful	consideration of the	information base
•	CONCLUSION Does the parcel	l size and ownership patterns of	the subject	•	nutlined above, it is	concluded that the	subject area is:
	and adjacent so relation to the	urrounding area, when considered e lands' actual use, contribute is "committed"?	together in		Irrevocably the standar	committed to un ext ds of OAR 660-04-02!	ent that satisfies
	₩ YES		1			developed or built of ies the standards of	opon to an extent

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1. Public Facilities and Burylens

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OTHER RELEVANT FACTORS CONTRIBUTING TO CONKITHENT

The existing dwelling unit density of the subject area is predominantly:

201 du per 5 acros □10-20 acres Omore than 20 acres The parcel airn and ownership pattern of the adjacent surrounding area is predominantly; ₩10-20 acres □20-40 acres Dmore than 40 acres COMMENTS CONCLUSION Does the predominant dwelling unit density of the subjected area contribute to a conclusion that the area is "commit D NO ULTIMATE CONCLUSION 111. Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands' actual use, contribute to a conclus that the area is "committed"? ∏ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025. Physically developed or built upon to an extent that satisfies the standards of OAR 660-04-025. ₩ YES 5. Dwelling Unit Density The existing dwelling unit density of the subject area is predominantly: - D1 du per 2 acres or less THE PARTY OF THE P i Ö BUILT OR COMMITTED LANDS WORK-SHEET OTHER RELEVANT FACTORS CONTRIBUTING TO CONKITMENT I. DESCRIPTION OF AREA A. Description Township 30, Range 14, Section 06 I TYES Is the subject area generally surrounded on 3 or more sides by: Вио B. Study Area EE-1

C. Acreage & acres i. other "built or committed areas", or , II. IMPORMATION BASE "natural boundaries or other buffers separating the exception area from adjacent resource land"? COMMENTS COMMENTS Area consists of three small developed parcels officent to U.S. Highway 106 CONCLUSION Do existing adjacent uses make uses allowed by LCDC Goal 3 or 4 . ₩ AES CONCLUSION ្នែ 🗅 🗅 NO Is the area generally "encircled"? Is the area physically developed or built upon to the extent that it satisfies the OAR 660-04-025 standard? T YES E) NO Ø YES , □но Neighborhood and Regional Characteristics Do general neighborhood and regional characteristics contribute to characteristics contribute to a conclusion that the area is "committed"? D No MOTE: "Existing Adjacent Daes" includes all subject area described in I. above.

The second secon

O

□5-10 acres

1 du per 5 acres

CONCLUSION

Does the predominant dwelling unit density of the subject

E) YES

D NO

II. ULTIMATE CONCLUSION

Based upon a careful consideration of the information base outlined above, it is concluded that the subject area is:

- ☑ Irrevocably committed to an extent that satisfies the standards of OAR 660-04-025.
- Physically developed or built upon to an extent that satisfies the standards of OAN 66D-04-025.

3. Public Facilities and Services

YES

Is public water generally availabl

E NO

٠. .

Is public sewer generally available

D NC

XES.

Is the subject area within a fire

. D NO

Bandon REPO.

CONCLUSION

Do available public facilities and services contribute to a conclusion that the area is "conmitted"?

DYES .

(A)

4. Parcel Size and Ownership Patterns

The parcel size and ownership pattern of the subjectarea is predominately:

Carried Barrier Control of the Contr

Dless than 5 acres

□5-10 acres

710-20 20-22

Omore than 20 arres

The parcel size and ownership pattern of the adjacent surrounding area is predominantly:

10-20 acres

20-40 acres

more than 40 acres

COMMENTS

CONCLUSION

Does the parcel size and ownership patterns of the subject and adjacent surrounding area, when considered together in relation to the lands actual use, contribute to a conclusion that the area is "constitued"?

M YES

□ NO

5. Dwelling Unit Density

The existing dwelling unit density of the subject area is predominantly:

1 du per 2 acres or less

Appendix C

Location Township	Parcel Si	ze, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A		Conclusions: Parcel/area is	
Range Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner ships	#4 Predominate owner ship size	#5 Public facilities water		#6 Natural Boundaries & other factors	#7 Parcel bordered on 2 sides by smaller developed parcels (yes/no)	#8 parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	#9 parcels outside the study area are smaller similar larger	committed, based on factors from column #'s
23-12-4	19	2	4	3			Camp Easter Seal at Tenmile Lake	no	no	larger	1-4,6
23-12-8	8	4	6	1			borders subdivision at Tenmile Lake	yes	no	similar	1-4,6,7,9
23-12-21A	4	2	3	2			Tenmile Lake	no	no	larger	1-4,6
23-12-21D	3	2	3	1			Tenmile Lake	no	no	similar	1-4,6,9

Location Township	Parcel Si	ze, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A		Conclusions: Parcel/area is	
Range Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner ships	#4 Predominate owner ship size	#5 Public facilities water		#6 Natural Boundaries & other factors	#7 Parcel bordered on 2 sides by smaller developed parcels (yes/no)	#8 parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	#9 parcels outside the study area are smaller similar larger	committed, based on factors from column #'s
23-13-35	10	0	1	10			Saunders Lake & U.S. 101	yes	yes	smaller	1,3,4,6,7-9

Location Township	Parcel Si	ze, Own	ership Pa	attern, Physical		Adjacent A		Conclusions: Parcel/area is			
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public facilities water		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller developed parcels (yes/no)	parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	parcels outside the study area are smaller similar larger	based on factors from column #'s
24-11-19	3	0	1	3			W. Fork Millicoma River (connects 2 com. areas)	yes	no	smaller	1,3,4,6,7,9
24-11- 33C&D	11	4	8	2			E Fork Millicoma River	no	no	larger	1,2,3,4,6

Location Township Range	Parcel Si	ize, Owr	nership Pa	attern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Section	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public facilitie		Natural Boundaries & other factors	Parcel bordered on 2 sides	parcel bordered on 3 or	parcels outside the	based on factors from column #'s
					water	sewer		by smaller developed parcels (yes/no)	more sides by smaller developed parcels (yes/no)	study area are smaller similar larger	
24-13-2/3	74	3	7	10			between 2 committed areas	yes	yes	smaller & larger	1-4, 6-9
24-13-12- 900,1000	3	0	2	1			adjacent to North Slough committed area	no	no	similar to larger	1,3,4,6
24-13-13C	7	2	1	7			Adjacent to committed area	no	no	larger	1-4,6
24-13-23	11	1	1	11			bounded by committed area	yes	yes	smaller	1-4,6-9
24-13-24A (&13D)	50	2	8	8			adjacent to committed area	yes	no	similar	1-4,6,7,9
24-13-24D	72	4	8	5			intersection of Palouse Ck Road & North Bay Drive	no	no	smaller & larger	1-4,6,9
24-13-13D- 1300/1302 24-13-24-102,103, 200,203, 204	75	4	5	5			adjacent to committed area and	yes	no	larger & smaller	1-4,6,7,9

Location Township Range	Parcel Si	ze, Own	nership Pa	nttern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner	#4 Predominate owner	#5 Public facilities		#6 Natural Boundaries & other factors	#7 Parcel bordered	#8 parcel bordered	#9 parcels outside	committed, based on factors from
			ships	ship size	water	sewer		on 2 sides by smaller developed parcels (yes/no)	on 3 or more sides by smaller developed parcels (yes/no)	the study area are smaller similar larger	column #'s
25-11-4	51	2	11	5			E. Fork Millicoma River above Allegany	no	no	larger	1-4,6
25-11-7	6	2	2	3			E. Fork Millicoma River	no	no	larger	1-4,6

Location Township	Parcel Si	ize, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A		Conclusions: Parcel/area is	
Range Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner ships	#4 Predominate owner ship size	#5 Public faciliti water		#6 Natural Boundaries & other factors	#7 Parcel bordered on 2 sides by smaller developed parcels (yes/no)	#8 parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	#9 parcels outside the study area are smaller similar larger	committed, based on factors from column #'s
25-12-6 25-12-7	25	4 0	4	5			Kentuck Golf Course area Carlson Heights	no yes	no no	larger smaller &	1-4,6
25-12-31	22	4	6	4			borders city of Coos Bay	yes	no	larger smaller & larger	1-4,6,7,9

Location Township	Parcel Si	ize, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public faciliti		Natural Boundaries & other factors	Parcel bordered on 2 sides	parcel bordered on 3 or	parcels outside the	based on factors from column #'s
					water	sewer		by smaller developed parcels (yes/no)	more sides by smaller developed parcels (yes/no)	study area are smaller similar larger	
26-12-7A	13	3	3	5			Catching Slough Road (west side)	yes	no	similar	1-4,6,7,9
26-12-8	33	10	14	1-3			Stock Slough at Catching Slough	yes	no	larger	1-4,6,7
26-12-17	37	3	11	4			Catching Slough Road (west side)	no	no	larger	1-4,6
26-12-20A	6	0	3	1			Adjacent to Catching Slough Road Committed areas	yes	no	similar	1,3,4,6,7,9
26-12-20C	3	1	1	3			Catching Slough Road Committed area (adjacent)	yes	no	larger	1-4,6,7
26-12-29	2	0	1	2			Wriston Springs area	no	no	larger	1,3,4,6

Location Township	Parcel Si	ze, Own	ership Pa	nttern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage			es	Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller developed parcels (yes/no)	parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	parcels outside the study area are smaller similar larger	based on factors from column #'s		
26-13-1	79	3	5	12			north & south sides of Isthmus Heights Ridge Road*	yes	yes	smaller	1-4,6-9
26-13-23	4	2	3	1			Southport Road @ U.S. 101	no	no	larger	1-4,6
26-13-24	49	1	5	5-10			fills in committed area	yes	yes	smaller 1-4,6-9	

^{*} Major BPA transmission line bisects property

Location Township	Parcel Si	ze, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A		Conclusions: Parcel/area is	
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public facilities water		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller developed parcels (yes/no)	parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	parcels outside the study area are smaller similar larger	based on factors from column #'s
26-14-03	5	4	4	1			Cape Arago Highway	no	no	larger	1-4,6
26-14-02	1	1	1	1			oner in conjunction with adjoining parcel in committed area	no	no	larger 1-4,6	

Location Township	Parcel Si	ze, Own	ership Pa	nttern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public facilities water		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller developed parcels (yes/no)	parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	parcels outside the study area are smaller similar larger	based on factors from column #'s
27-11-07	34	5	4	4			Fairview-Laverne Park	yes	no	smaller & Larger	1-4,6,7,9
27-11-32	15	3	2	7			Fairview-McKinley Road	no	no	larger	1-4,6

Location Township	Parcel Si	ze, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A		Conclusions: Parcel/area is	
Range Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner ships	#4 Predominate owner ship size	#5 Public facilities water		#6 Natural Boundaries & other factors	#7 Parcel bordered on 2 sides by smaller developed parcels (yes/no)	#8 parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	parcels outside the study area are smaller similar larger	committed, based on factors from column #'s
27-12-25	33	2	3	12			borders North Fork Coquille River	no	no	larger	1-4,6

Location Township	Parcel Size, Ownership Pattern, Physical Development								Adjacent Areas		
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public facilitie water		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller developed parcels (yes/no)	parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	parcels outside the study area are smaller similar larger	based on factors from column #'s
27-13-21	4	0	1	4			near North Bank ar OR 42	yes	no	larger	1,3,4,6,7
27-13-33	7	1	2	4			OR 42 S	yes	no	similar	1-4,6,7,9
27-13-02A	17	1	2	9			Bench area & commercial forest land	yes	no	smaller & larger	1-4,6,7,9

Location Township	Parcel Size, Ownership Pattern, Physical Development								Adjacent Areas		
Range Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner ships	#4 Predominate owner ship size	#5 Public faciliti water		#6 Natural Boundaries & other factors	#7 Parcel bordered on 2 sides by smaller developed parcels (yes/no)	#8 parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	#9 parcels outside the study area are smaller similar larger	committed, based on factors from column #'s
27-14-17	187	6	24	6			Seven Devils Road Seven Devils Road	yes	no	similar to larger	1-4,6,7
27-14-21	8	0	1	8			Medohill Ranchettes	yes yes	no no	smaller & larger	1,3,4,6,7

Location Township	Parcel Si	ize, Owr	ership Pa	attern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public facilitie		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller	parcel bordered on 3 or more sides	parcels outside the study	based on factors from column #'s
					water	sewer		developed parcels (yes/no)	by smaller developed parcels (yes/no)	area are smaller similar larger	
28-14-5- 1300	2	1	1	2			Borders Fahy's Lake	no	no	larger & smaller	1-4,6,9
28-14- 15,16- 1100,1102, 1103,1104, 1106,1502	51	1	5	12			Between Tom Smith Road & Ridge Line	no	no	larger	1-4,6
28-14-17- 800,900	12	1	2	6			adjoins Prosper Road committed area	yes	yes	similar	1-4,6-9
28-14-20A 28-14-21B	147	15	21	5			Intersection of Tom Smith Road & Prosper Road	NA	NA	larger	1-4,6
28-14- 21CD- 300,400, 500,600, 700,800	13	2	4	3			adjoins committed area at Prosper Road & OR 42S	yes	no	larger & smaller	1-4,6,7,9

Location Township	Parcel Siz	ze, Owne	ership Pat	tern, Physical I	Developr	nent		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4 Predominate	#5		#6	#7	#8	#9	committed, based on
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	r owner	Public facilitie		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller	parcel bordered on 3 or more sides	parcels outside the study	factors from column #'s
					water	sewer		developed parcels (yes/no)	by smaller developed parcels (yes/no)	area are smaller similar larger	
28-14-28B 28-14-29A & B	237	38	47	3-5	yes (west area)		Neighborhood bisected by OR 42S between Morrison Rd. & US 101	NA	NA	larger	1-4,5,6
28-14- 29CC-800	12	1	1	12	yes		OR 42S at Bandon city limits	yes	yes	similar	1-4,5-9
28-14-29C- 1200,1300, 1500,1600, 1700,1800, 1900	39	5	6	9	yes		OR 42S at Bandon city limits	yes	yes	similar & smaller	1-9
28-14- 31CB/CA- 100,200, 800,900/ 200	33	4	5	7			Between US 101 & Rosa Road	yes	yes	smaller	1-4,6-9

Location Township	Parcel Si	ze, Own	ership Pa	nttern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public facilitie water		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller developed parcels (yes/no)	parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	parcels outside the study area are smaller similar larger	based on factors from column #'s
28-14- 31CC& 28- 14-31CD	49	6	9	4			US 101 & Rosa Road	no	no	larger	1-4,6
28-14- 32CB	33	4	6	5			Bill Creek Road	yes	yes	smaller	1-4,6-9
28-14-32D	67	7	10	6			Bill Creek Road	no	no	larger	1-4,6

Location Township	Parcel Si	ze, Owr	ership Pa	attern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public faciliti		Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller	parcel bordered on 3 or more sides	parcels outside the study	based on factors from column #'s
					.,,	30,102		developed parcels (yes/no)	by smaller developed parcels (yes/no)	area are smaller similar larger	
29-12-7	12	3	3	4			Stringtown Road	no	no	similar to larger	1-4,6,9
29-12-9	15	0	1	15			Between Committed area & City of Myrtle Point	yes	yes	smaller	1,3,4,6-9
29-12-6	10	3	1	10			Myrtle Point- Lampa Road	no	no	larger	1-4,6

Location Township	Parcel Si	ze, Owr	nership Pa	attern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public faciliti	es	Natural Boundaries & other factors	Parcel bordered on 2 sides	parcel bordered on 3 or	parcels outside the	based on factors from column #'s
					water	sewer		by smaller developed parcels (yes/no)	more sides by smaller developed parcels (yes/no)	study area are smaller similar larger	
29-11-5	69	11	17	4			Rosay Road	no	no	larger	1-4,6
29-14-6A	47	5	8	8			Chandler Road near airport	no	no	larger	1-4,6
29-14-6B	39	5	5	10			US 101 on west, bisected by Johnson Creek	no	no	similar to larger	1-4,6
29-14-8	13	4	5	2-3			Rosay Road	no	no	larger	1-4,6
29-14-18C &D	67	6	8	4			Rosay Road & Two-mile Road	no	no	similar	1-4,6-9
29-14-18B	2	0	2	1			US101	no	no	larger	1,3,4,6
29-14-31	20	2	3	7			US101	no	no	larger	1-4,6,9
29-14-7	10	6	1	10			US101	no	no	larger	1-4,6
29-14-7- 1400,1401	11.5	7	1	10			US101	no	no	larger	1-4,6

Location Township	Parcel Si	ze, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range	#1	#2	#3	#4	#5		#6	#7	#8	#9	committed,
Section Tax Lots	Total acreage	# of D.U's	# of owner ships	Predominate owner ship size	Public faciliti	1	Natural Boundaries & other factors	Parcel bordered on 2 sides by smaller	parcel bordered on 3 or more sides	parcels outside the study	based on factors from column #'s
					water	sewer		developed parcels (yes/no)	by smaller developed parcels (yes/no)	area are smaller similar larger	
29-15-1A- 100,600	32	2	2	0			US101, city limits, industrial site	yes	no	similar	1-3,6,7,9
29-15-1C & D	179	15	22	5 & 10			US 101 & face Rock Golf Course	NA	NA	larger	1-4,6
29-15-12B	8	1	4	2			Beach Loop Road	no	no	larger	1-4,6
29-15-12D	12	1	3	5			US 101	no	no	larger	1-4,6
29-15-12C &D	56	5	10	7			Beach Loop Road	no	no	larger	1-4,6
29-15-13D	27	6	7	4			Two-Mile Creek Road	no	no	larger	1-4,6
29-15-25	51	5	7	3 & 10			US 101 at Laurel Grove RC	yes	no	similar to larger	1-4,6,7,9
29-15-36	14	4	4	4			Laurel Lake	yes	no	similar	1-4,6,7,9

Location Township	Parcel Si	ze, Own	ership Pa	ttern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner ships	#4 Predominate owner ship size	#5 Public facilities water		#6 Natural Boundaries & other factors	#7 Parcel bordered on 2 sides by smaller developed parcels (yes/no)	#8 parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	#9 parcels outside the study area are smaller similar	committed, based on factors from column #'s
31-11-19	11	3	2	5			Powers Highway	no	no	larger	1-4,6

Location Township	Parcel Si	ze, Own	ership Pa	attern, Physical	Develop	ment		Adjacent A	reas		Conclusions: Parcel/area is
Range Section Tax Lots	#1 Total acreage	#2 # of D.U's	#3 # of owner ships	#4 Predominate owner ship size	#5 Public facilities water		#6 Natural Boundaries & other factors	#7 Parcel bordered on 2 sides by smaller developed parcels (yes/no)	#8 parcel bordered on 3 or more sides by smaller developed parcels (yes/no)	#9 parcels outside the study area are smaller similar larger	committed, based on factors from column #'s
32-12-12	4	1	1	4			Powers Highway & South Fork Coquille	no	no	similar to larger	1-4,6

Sub-division	Parcel S	Size &Ow	nership Patt	erns		Physical De	evelopment			Adjacent areas	Conclusion: subdivision
name & loaction	#1 Date of final plat	#2 lots platted (#)	#3 lots in separate owner- ship(#)	#4 lots built on (#)	#5 Average lot size (ac)	#6 Roads	#7 Septic & water systems	#8 other	#9 total of developer's expenses	#10	is committed based on factors in columns:
Armstrong Sunnyhill 28-14-16	11/29/ 82	21 Block 1-4	2	2	5	+ 1 mile (grade, gravel, clearing) \$205,000	DEQ approvals \$3,600	Eng. survey \$30,000, electricity \$20,500; backhoe, culvert, legal, misc. \$20,000	\$300,000	abuts Prosper Road	[100 acres is committed] based on factors 3,4,6,7,8,9
Sheretz Burnside (except northern 2 blocks) 28-14-20AB								, ,			not committed
Arvold Trent Road 28-14-20D	5/10/ 79	21	21	2	1.8	mile(grade gravel, clearing, subgrade) \$200,000	DEQ approvals \$3,000 wells, \$9,000	Eng/Survey \$9,000, under ground elec TV, telephone \$20,000	\$250,000	abuts Bayes Road to Highway 42S	committed based on factors 3,4,6,7,9

Sub-division	Parcel S	Size &Ow	nership Patt	erns		Physical De	evelopment			Adjacent areas	Conclusion: subdivision
name & loaction	#1 Date of final plat	#2 lots platted (#)	#3 lots in separate owner- ship(#)	#4 lots built on (#)	#5 Average lot size (ac)	#6 Roads	#7 Septic & water systems	#8 other	#9 total of developer's expenses	#10	is committed based on factors in columns:
Melton 28-14-29A	3/13/83	7	4	0	2	900 ft (grade, gravel, clearing, subgrade) culverts \$5,000	DEQ approvals	electricity, phone, TV, survey/Eng	\$123,000	abuts Highway 42S	committed based on factors 3,6,7,8,9
Bradley Lake Estates 29- 15-13	8/1/84	16 (phase 1)	1	0	1/2 (PUD)	1500' (grade, gravel, clearing, subgrade) \$35,000	water system \$25,000 DEQ approvals \$2,800	underground elect, telephone \$20,000 eng/survey corporate staff time \$70,000	\$207,000	Bradley Lake. abuts Beach Loop Co. Road	committed based on factors 6,7,8,9
Whitty 24-11-30B	9/7/83	11	11	2	7	Bridge, Road & Culverts \$49,745	2 septics, 1 well	engineering, surveying permits \$21,589	\$71,324	Abuts W. Fork Millicoma	committed based on factors 3,4,6 8,9

Sub-division	Parcel S	Size &Ow	nership Patt	erns		Physical De	evelopment			Adjacent areas	Conclusion: subdivision
name &	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	is committed
loaction	Date of final plat	lots platted (#)	lots in separate owner- ship(#)	lots built on (#)	Average lot size (ac)	Roads	Septic & water systems	other	total of developer's expenses		based on factors in columns:
Schlatter 27-12-25	none	6 (tentative)	none	0	NA	road fill material \$720	Septic, 2 well approvals	surveying, etc. \$5162	\$7212	Abuts N. Fork Coquille River	not committed
McNeely 28-12-19	7/14/83	19	17	3	6	+/-3 miles (rock, grading, culverts, cuts) \$80,000	septic: 8 built, 19 approved Water: 3 reservoir (2 ½ M gal) \$32,000	electricity permits, surveying, etc. \$12,000 farm/forest declass. since final plat +\$10,000	\$134,000	abuts OR Hwy 42	committed based on factors 3,4,6,7,8,9
Weiss 28-14-05	PhaseI 6/22/81 Phase II 10/3/84	25	6	3	1 1/2	rock, grading, etc. \$22,500	25 septic approvals common water system & trmt. plant \$38,000	under-ground elec telephone, engineering platting, etc. \$59,645	\$120,355	abuts Fahy Lake & US 101	committed based on factors 3,4,6,7,8,9

4.6 <u>Public Facilities and Services</u>

I. Introduction

The essential objective of this inventory and assessment report is to collect and analyze information needed:

"To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development" [LCDC Goal #11]

As defined here, public facilities and services include not just those that are publicly owned and operated, but also those that are privately owned and operated that provide essential services for the general public health, safety and welfare. A listing of these services is contained in Part II of this report.

This report is organized as follows:

Part II provides a matrix to help identify current and expected problems in service provisions.

Part III explores the major issues that correspond to the major theses or requirements of the goal; this discussion can then eventually be used to form a basis for policy decisions about public facilities and services.

In Part III:

- 1. Section A discusses the major requirements of State Goal #11 (Public Facilities and Services).
- 2. Section B discusses the different levels of services required for urban and rural uses.
- 3. Section C discusses existing and potential problems provision of the major urban public services (sewer and water).
- 4. Section d considers the need for coordination and addresses the current extent of coordination.

Further detailed discussion of public facilities and services can be found in this plan's Urbanization Inventory and Assessments for each city.

II. Inventories

The "Background Document" to the Comprehensive Plan provides a detailed listing of the specific agencies in Coos County providing public services and facilities and shows their areas of jurisdiction. The following are considered public facilities and services:

Education Parks (Facility); Recreation (Service) Fire Protection Electric Power

Cable TV Telephone

Government Medical/Health
Law Enforcement Solid Waste
Transportation Water

Sewer

Part of the basis for determining potential problems must be a comparison of <u>present</u> capacity and demand to <u>expected</u> or <u>planned</u> capacity and demand. As discussed in Section IV of this report, the data will be completed as coordination activities are strengthened. The existing data provided by special districts to date is compiled in Tables 1 and 2, which follow. (Please refer to Section III for description of responsibilities of special districts to provide information).

Table 1

Service type	Provider	Current Demand	Current	Projected	Planned Capacity
			Capacity	demand (2000 A.D.)	
		units	units	units	units
1. Water	a. Coos Bay/North Bend Water Board	8 mgd	8.5 mgd	12 mgd	12 mgd.
	b. Bay Park/ Millington Water District	900 people	(contract with a.) 1.5 mg storage (reservoirs)	1350 people	(contract with a.) 9 mg storage (reservoirs)
	c. Lakeside	.39 mgd (peak mo. 1980	.65 mg storage (reservoirs) .432 mgd (maximum rated)	.8 mgd. (peak mo. 1995)	1/65 mg. storage (reservoirs) .97 mgd. (treatment)

Terms:

[&]quot;mg" = million gallons

[&]quot;mgd" = million gallons per day.

Table 2

Service type	Provider	Current Demand	Current	Projected	Planned Capacity
			Capacity	demand (2000	(2000 A.D.)
				A.D.)	
		units (MGD)	units(MGD)	units(MGD)	(MGD)
1. Sewer	a. Coos Bay	[See IIIC1]	3.24 (city		
			share)		
	b. North Bend	1.5 (summer)	3.0		
		3+ (winter)			
	c. Charleston	.2 (average)	.47		
	Sanitary District			-	
	**				
	d. Bunker Hill *	[See IIIC1]	.325		
				-	-
	e. Lakeside			.5mgd	.5mgd
		(.271 mgd)		(1995)	(1995)
	f. Eastside *	[See IIIC1]	.25		

^{*} Existing contract with City of Coos Bay using Sewage Treatment Plant #1

III. Major Issues

A. General Discussion

Public facilities and services are one of the most important tools for implementing the County's (and cities') plans in an orderly and efficient manner. As stated in State Goal #11, they are the framework on which urban and rural development must be based. The goal and its guidelines contain three major "themes" or requirements that, when analyzed in more detail, provide a structure for creating a workable public facilities and services plan.

The first major requirement is that public facilities and services must be planned so as to support existing and proposed land uses.

Service provision must be internally consistent with other portions of the comprehensive plan. Therefore, based on state law:

- 1. Service provision must be keyed to growth and development projects.
- 2. <u>Needed services must be available when new development is to occur;</u> otherwise, the lack of such services would inhibit planned development and the plan would be internally inconsistent.
- 3. <u>Services must not be used to misdirect growth.</u> That is, they should not be extended to areas where they are not needed (such as areas that are not

^{**} Existing contract with City of Coos Bay using Sewage Treatment Plant #2

planned for development), or the plan would be internally inconsistent and could not be properly implemented.

The second major requirement is that urban services must be distinguished from rural

services, so that urban services support urban uses and rural services support strictly

rural uses.

This requirement can be thought of as an adjustment of the first requirement: service

must not simply support development; they must also be separated into urban and rural categories to promote specific types of development.

Therefore:

- 1. <u>"Public facilities and services in urban areas should be provided at levels necessary and suitable for urban uses."</u> (Goal #11, Guideline A.3)
- 2. <u>"Public facilities and services for rural areas should be provided at levels appropriate for rural use only and should not support urban uses."</u> (Goal #11, Guideline A.2). These guidelines combine to form an even more specific statement:
- 3. Planned service extension to areas outside an Urban Growth Area (UGA) will require adequate findings to ensure that the service is necessary to support the level of rural development planned for the area.

The State Goals imply a sharp urban/rural difference, something akin perhaps to a walled fortress. The actual situation is one where transition is gradual (over a long distance) and fuzzy rather than sharp. Although the Urban Growth Boundaries (UGB's) are designed to define the limits of what will be urban by the year 2000, the UGB processes cannot justify inclusion of all partially developed areas. Some of the areas substantially committed to non-resource uses (generally residential and commercial) outside a UGA may eventually need more public services than currently provided. Part C analyses certain of these areas to determine where service extension or community owned services and facilities can be justified.

This problem is overcome partly by the required periodic plan review and update. If such areas need services, the plan could be revised such that the UGB is expanded outward to reflect changes in the area. On the other hand, certain situations may occur where services are necessary (such as when area-wide septic system failures occur) to support existing uses. In these situations, the goal would not be violated as long as the service extension does not affect the planned level (density) of development.

4. <u>Coos County's 12 Rural Centers</u> (see Rural Housing Inventory and Assessment) <u>are planned for densities that in some cases may need additional public facilities and services not currently being provided, such as public water.</u>

This suggests that the distinction between urban and rural public facilities and services must be further refined to account for the unique characteristics of rural centers. The County must then determine whether the planned densities are sufficient to justify a need for services not normally required for rural areas.

Part C explores the difference between urban and rural services to determine the normal levels appropriate for each.

The third major requirement is that service provisions must be coordinated among differing geographic areas and jurisdictions because public facilities are required to guide and support expected growth.

That is, service extension must be available (embodied in the plan) to a particular area earmarked for growth; the jurisdiction(s) should then be financially capable of actually extending the services when needed. Additionally, the plan should indicate the agency or service jurisdiction expected to provide the needed services and facilities.

B. Rural versus Urban Level Services

1. Discussion

As noted in the Introduction, goal #11 points to the need for distinguishing between the types and levels of facilities and services that are urban in nature and they types that are exclusively rural. The distinction is important since needs for urban and rural areas will be different and must be planned to allow the expected forms of urban and rural growth to occur in an orderly and efficient manner.

A standard planning argument against rural growth is that the haphazard manner in which it typically occurs requires unfair expenditures by the general public to provide for the necessary public services such growth demands. Historical trends in Coos County negate that argument. Most of the rural growth that occurs generates private rather than public costs. This occurs for several reasons:

- Service provisions tend to be privately provided; septic systems and individual wells are used rather than public water and sewer systems.
- b. The Board of Commissioners has consistently maintained a position that adoption of roads into the County road maintenance system should be severely restricted to prevent an unacceptable increase in tax levied. Thus, many public roads are privately maintained by the major users of the road, the adjacent residents.

- c. School enrollments have generally remained steady or even declined since the postwar "baby Boom" children graduated.
 Thus, many schools serving rural areas continue to have excess classroom capacity to serve new rural residents. [Source: Socio-Economic Indicators, 1978]
- d. Where occasional residential communities occurred in sufficient density, such as Bridge and Garden Valley, the residents formed their own community service provision (usually public water) at the group's private (rather than public) expense.

The justification for additional rural housing (see Rural Housing Element) is predicated, in part, on the assumption that such a lifestyle demands a non-urban density (between 2-10 acres), providing each property owner with a land area sufficient to ensure adequate area for a septic system and well or other private water supply, and, in some cases, for having a garden or small grazing area. At these densities, public services are usually unnecessary and in most cases not financially feasible.

The following section more specifically considers the levels of public services that are appropriate for rural and urban areas.

2. <u>Determination of Appropriate Service Levels</u>

a. Rural

Preceding considerations suggest that the minimum level of public services necessary to support rural development are:

- i. police (sheriff) protection
- ii. public education (but not necessarily by a rural school facility).

An additional service that could be considered necessary is:

iii. fire protection.

Since some residential development in Coos County is adjacent to commercially valuable forest land, it is important to ensure that a minimum level of protection for both the dwelling and the adjacent forest land. The requirement for fire protection could take two forms:

- i. New development could be required to be included within a Rural Fire Protection District (at the option of the RFPD), or
- ii. New development could be required to provide some measure of its own fire protection by ensuring access of trucks to within 16 feet of any stored water source, and by creation of a firebreak of at least 30 feet around all

dwellings. (The firebreak would permit ornamental shrubbery and single specimen trees) [Source: Northwest Interagency Fire Protection Group]

Other services can be considered optional in rural areas, such as:

electricity (the Uniform Building Code requires wiring to be roughed in) telephone drainage district school bus provision (extent of area served to be determined by school district)

b. Urban

Although Goal #11 allows "the governing body" to determine which services are "appropriate solely for the needs of rural use," it is much more specific for urban uses. The goal states that Urban Facilities and Services "refers to key facilities and to appropriate types and levels of at least the following: police protection; fire protection; sanitary facilities; storm drainage facilities; planning, zoning, and subdivision control; health services; recreation facilities and services; energy and communication services; and community governmental services."

The Goal #11 guidelines carry this one step further, suggesting that "public facilities and services in urban areas should be provided at levels necessary and suitable for urban uses."
[Guideline A.3]

While each individual city will determine the level of service appropriate for its citizens, it is nevertheless consistent to state that the densities projected for urban areas are such that public sewer and water, electricity, police protection, and storm drainage are the minimum services necessary to support these densities and promote the public health, safety, and welfare.

Certain rural areas may require more than the minimum level of rural service provision. The following section explores existing and potential problems in those areas as well as problems in the unincorporated UGA adjacent to Coos Bay to determine whether the particular circumstances in each area require more than minimum level services.

c. <u>Existing and Potential Problems in Services Provisions</u>

Most discussions of the need for orderly development focus philosophically on the unintended spin-off costs of haphazard growth. The actual effects on specific areas in Coos County, when viewed in an historical context, point to a number of existing system deficiencies (These are also discussed in the Urbanization Element). The following geographic areas merit specific discussion about their facility and service deficiencies and needs; these service problems occur largely in provision of major services - public sewer and water provision - and occasionally in terms of transportation.

1. Coos Bay Unincorporated Urban Growth Area (UGA)

a. Charleston/Barview

Sewer service extension is provided to a portion of this area by a main interceptor line that runs south from Coos Bay sewage Treatment Plant #2 along Cape Arago State Highway. Since the main line lies almost along the westerly edge of Barview, most residents cannot receive sewer service unless lateral lines are installed (Laterals are secondary main lines that run generally east from the interceptor along the side streets in Barview.).

Development in this urbanizing area has been piecemeal and dispersed. Since no large subdivision has been developed as a coordinated timed development, no single residential builder has been able to justify the costs of installation of lateral lines to connect to the main sewer line, which runs along the length of Cape Arago State Highway. Additionally, many of the existing dwellings' septic systems were installed before the imposition of strict septic regulations by the State Department of Environmental Quality (DEQ). Some of these systems are now experiencing failure.

The Charleston Sanitary District has engaged in a series of attempts to obtain funding from government sources to enable construction of the necessary lateral sewer line extensions. The District was recently awarded a \$500,000 grant from the U.S. Department of Housing and Urban Development (HUD) to finance construction of lateral lines along Travis Street, Wigent Street, and Wilshire Blvd. that are expected to serve approximately 125 dwelling units. Neither the District nor individual residents have sufficient money at present (other than the HUD grant money) to finance lateral construction.

The District contracts for sewage treatment with the City of Coos Bay, and shares use of Coos Bay Treatment Plant #2 with the Empire district. The existing contract specifies a loading limit of 29% of the total plant capacity. Current plant capacity is rated at 1.62 million gallons per day (mgd) of effluent flow, thus giving the Charleston Sanitary District a contractual upper limit of 470,000 gallons per day. [Source: Conversation with Joe Schwarm, City of Coos Bay, April 9, 1980] Capacity is also

monitored in terms of strength of sewage, as measured by Biological Oxygen Demand (BOD) and Suspended Solids (SS). Assuming that on the average each person will produce .2 pounds of suspended solids in 100 gallons of flow per day, the contractual capacity of the Charleston Sanitary District is rated as the equivalent of 4,700 people.

Industrial and commercial users can then be rated to determine their individual "residential equivalent." Fish processors are required to screen their waste and are limited to introducing no more than 300 parts per million of BOD and SS into the sewer system. [Source: Conversation with Dick Nored, HGE, Inc., April 3, 1980]

The Charleston Sanitary District's contract with Coos Bay converts to a service capacity of a population roughly equivalent to 4,700 people. In the event that industrial, commercial, and residential growth in the Charleston/Barview area exceeds the residential equivalent of 4,700 people, at least on of the following may be required:

- A renegotiation of the existing contract where the Charleston Sanitary District purchases a portion of the remaining unused capacity (if any) of sewage treatment plant #3;
- ii Payment by the District for an expansion of that plant's treatment capacity;
- iii. Construction of a new sewage plant to serve the Charleston Sanitary District. {source: conversation with Cynthia Hartman, City of Coos Bay, March 26, 1980].

In the absence of additional public funding, the most likely source of lateral construction money will occur in the private sphere, specifically from those builders and developers able to command the financial resources necessary to prepare and construct large-scale developments. To encourage private investment in Charleston/Barview, investors must be assured (among other things) that land use and zoning controls will discourage poor aesthetic appearance features such as open storage of wrecked cars and junk.

b. Bay Park/Bunker Hill/Millington/Libby

Much of this area's problems in regard to disjointed sewer and water provision are a direct result of the difficult topography. Water supply problems are in two categories:

i. The Libby area's smaller diameter lines are inadequate to provide sufficient volume or pressure for fire protection.

ii. Voters in the Bay Park/Millington water district recently turned down a proposal that would have funded construction of a connector loop water line for the system. Without that water line, the entire system could experience temporary closure in the event of failure of the water line.

One of the more serious problems regarding facilities provisions is that only a small portion (Bunker Hill) of this proposed UGA is served by public sewer (via Bunker Hill Sanitary District). Extension and installation of sewer lines in the Libby and Millington areas would require Coos Bay Treatment Plant #1 to handle the additional effluent unless a new treatment plant were to be constructed. The current problem is that most of the existing storm sewer system is not separated from the sanitary sewer system. During periods of heavy rain, the sewage treatment plant becomes so overburdened with water flow that part of the flow must be diverted from the plant. This means that both storm runoff and untreated (although diluted) sewage must be dumped directly into the estuary. Coos Bay is working to separate the two systems, but is not capable of taking on additional non-city customers for plant #1 until the problem is corrected.

Current capacity of Plant #1 is 2.66 mgd, with contractual capacities for each service area as follows:

City of Coos Bay 2.085 mgd

Bunker Hill Sanitary District .325 mgd City of Eastside .250 mgd

Total 2.660 mgd

[Source: Conversation with Joe Schwarm, City of Coos Bay, April 9, 1978]

2. <u>Unincorporated Areas Outside UGB's</u>

The goal requirements discussed previously have the effect of using public services provision to help direct and separate rural and urban development. Services should be planned for areas where development is planned. This means that future urban areas should not be planned for rural services, and rural areas should not be converted to urban areas by the extension of major public services (unless within an Urban Growth Boundary).

Public water and sewer <u>extensions</u> from an urban area to a rural area outside a UGB would therefore normally not comply with the requirements of Goal #11. However, there are three cases where such service provision could be deemed a necessity:

- industrial sites:
- recreational planned unit developments (PUD), if within an existing sanitary sewer and water district;
- health hazard areas.

The first two are based on economic necessity; the third is necessary to ensure protection of the public health. These are discussed more fully under each topic later in this section.

Public services such as sewer and water can also be provided by community-owned systems rather than just by extension from urban areas. Development of community-owned systems in Rural Centers would be a reasonable alternative when necessary to support planned rural in-fill development within Rural Center boundaries. Community-owned public water systems have not occurred (except in cities) and are unlikely to occur because of their greater cost and complexity.

The remainder of this section considers existing and expected problems within each area.

a. Rural Centers

In the Rural Housing Inventory and Assessment of the plan, a Rural Center is defined as: "a named developed area providing some essential service(s) to the surrounding rural area, containing (at least) a store (or other commercial use), plus a school, church, or grange hall."

Based on criteria in that element, the following communities are considered Rural Centers: Allegany, Arago, Bridge, Broadbent, Cooston, Dora, Fairview, Glasgow, Greenacres, Hauser, Saunders Lake, Laurel Grove, Fourmile, Riverton, and Sumner.

As noted in earlier discussion, rural centers are projected to experience considerable in-filling to the extent that they may eventually require the development of community-owned rural water systems within their boundaries. Currently, Bridge and Riverton have community-owned water systems; Glasgow (and Shorewood, a "committed" area) are supplied with public water by the Coos Bay/North Bend Water Board. Except for Glasgow and Hauser/Saunders Lake, all other rural centers are expected to develop their own community-owned systems (if needed) because of their distance from the major water and sewer facilities in the Coos Bay/North Bend area. Glasgow and Hauser/Saunders Lake are unique as rural centers because of their proximity to urban areas.

i. Glasgow

Glasgow originally developed its own community water system in response to water availability problems with use of individual wells. The easternmost portion of the area is still served by a community system (Glasgow Water Co-op), but the major part of the area has been served since 1972 by the Coos Bay/North Bend Water Board (CBNBWB) [Source: Phil Matson, CBNBWB; February, 1980]

ii. Hauser

With its relatively large extent of buildable land, marginal forest productivity, and proximity to U.S. Highway 101 and the Bay Area, Hauser is a prime candidate for rural residential development as well as pressure for urban-scale densities and services. Although public service provision is not needed at present densities, a future required periodic plan review may reflect a need for extension of public water within the Hauser/Saunders Lake rural center boundary. For the present, a community-owned public water system would be appropriate if necessary to serve rural densities.

3. <u>6 "Committed" Areas</u> (See definition, Rural Housing Inventory & Assessment)

a. North Bay area (Shorewood, North Bay Drive, Sunny Hill)

Shorewood was first served by public water in about 1967, when the Coos Bay/North Bend Water Board built the Shorewood treatment plant for water from the dunes aquifer. Shorewood and Glasgow can now be supplied either from water piped from the dunes source or water piped from Pony Creek Reservoir across McCullough Bridge (US101).

The North Bay Drive/Sunny Hill area (following the former route of US 101 from McCullough Bridge on the south to Hauser on the north) is a committed area not presently served by public water or sewer.

Its projected in-fill development is a key determinant as to whether public water extension to Hauser/Saunders Lake (at least) will be financially feasible. According to Phil Matson of the Coos Bay/North Bend Water Board, service extension to the Hauser area could occur from two sources:

- 1) directly from the dunes aquifer to the west, which would require construction of a water treatment plant, or
- 2) from the Shorewood treatment plant. The second alternative would be justifiable if the pipeline were to follow North Bay Drive, because that route would add additional customers along the entire length of the pipeline.

For the present, public service provision could not be justified as the basis of need.

b. <u>Isthmus Heights</u>

This area was not considered as a Rural Center because it failed to meet the necessary conditions of the definition. It also was not proposed as an Urban Growth Study Area because it is not urban in character (virtually no urban-level services are present). Nevertheless, Isthmus Heights has already developed to a fairly high density for a rural area (generally, about 2 acres per dwelling unit). This area could begin to experience areawide septic system or well failures (most septic systems were installed before DEQ regulations took effect) that would necessitate public water provision.

c. Lighthouse Way

Public water provision to this area already occurs simply because this small residential area is an intermediate point on a service line extending to the State Park at Sunset Bay (Cape Arago Highway). The area is not projected for any substantial additional growth.

d. <u>Charleston Industrial Tracts</u>

This committed area on Seven Devils Highway lies outside the Charleston Sanitary District and is therefore outside the proposed Urban Growth Boundary. Nevertheless, limited public service provision may prove necessary during the planning period because of potential widespread septic system failure (most septic systems were installed many years ago before stricter DEQ regulations were adopted).

e. Shinglehouse Slough Road

Although originally considered for inclusion in an Urban Growth Study Area, the area is now defined as a committed area - even though a small public water line serves the area - because the extremely poor alignment of the road (and the difficulty in improving it) will not permit densities in the area to reach those appropriate for an urbanizable area. Further public water extension would not be appropriate to serve this rural area.

f. Shelley Road/Crest Acres & Rink Creek

The portions of these areas not included in the Coquille UGA are each served by a water district contract with the City of Coquille that commits Coquille to supply them with its excess water. (The contracts will expire around the year 2000). (See Urbanization Inventory and Assessment--Coquille) Development is expected to be restricted by the lack of additional public water service capability.

4. Recreation Developments

These developments are expected to be "second-home" or "vacation-home" areas drawing people largely from outside Coos County. Since they draw income from outside the County's trade area, these developments help diversify the economy by "exploiting" Coos County's recreational amenities.

As noted in the "Bay Area Urbanization Inventory and Assessment", several proposals exist for development near the Coos Bay/North Bend area that would be tied to the presence of recreation opportunities, such as boating. The proposed development on Crown Point south of Barview is within the Charleston Sanitary District, can be served by public water, and is adjacent to a proposed UGA. The developer would pay all costs of water and sewer provision, and might be required to pay a proportionate share of costs for replacing or improving the Joe Ney Slough Bridge, if required. Public costs in such a case would be minimal.

For other developments, such as a possible recreational Planned Unit Development on the low forest-site-class coastal plain north of Bandon, public service extension would likely prove prohibitive and might generate unjustifiable demand for housing along the extended service lines. In this case, a community-owned or self-sustained facility system would conform much better to the provisions of Goal #11.

5. <u>Major Unincorporated Industrial Areas</u>

As discussed more fully in the Economics Inventory and

Assessment, the peculiar geography and topography in Coos County have severely limited the finite quantity of physically suitable industrial sites. The strict locational criteria of industrial sites requires that they be located along or in the immediate proximity of good quality transportation corridors. The major corridors are the Port of Coos Bay waterfront (water transportation) and the U.S. 101/OR 42 highway corridors between Myrtle Point on the south and Hauser on the north. The scarcity of industrial sites (see Industrial and Commercial Lands, Section 4.4) requires that any site along these corridors be available for industrial use, whether the site is within or outside an Urban Growth Area (UGS). Some uses may be able to provide their own self-sustaining systems: other uses, such as a pulp mill, will require public service provision (especially water) to develop to their full extent.

For example, further industrial development on the North Spit will likely require availability of public water and sewer as well as improved road access and fire protection. Unless such development creates its own self-sustaining system, agreements would have to be worked out between the developers/Port and the utilities capable of providing service. In this case, the North Bay RFPD would be the most logical provider of fire protection (it currently serves the developed area of the North Spit); the Coos Bay/North Bend Water Board would likely be the only available provider of public water; and only Coos Bay or North Bend could practicably extend public sewer across the Bay

6. <u>All Other Rural Areas</u>

In all other rural areas, the projected density is such that provision of public services might create unwarranted pressures and unjustified demand for higher-density development in areas that are generally earmarked for rural residential and resource-related uses. In these areas, the level of public facilities and services necessary to support planned development would be those services defined as rural in the next section, "Rural Versus Urban Level Services."

7. <u>Schedule of Services</u>

As previously discussed, the rigid urban/rural split envisioned by the goals does not precisely fit the existing situation. Previous discussion has focused on the problems of facilities and services provision in the unincorporated portions of Urban Growth Areas (UGA's), in Rural Centers, in certain "committed" areas. and in major unincorporated industrial areas. The following chart summarizes the projected levels of services types necessary to support the planned development within each area.

TABLE 2a

Area	Required Level of Service Provision by Year 2000		
Incorporated Cities	Urban		
Unincorporated Urban Growth Areas	Urban (except where UGA management agreements specify otherwise)		
2 10			
Rural Centers	Community-owned Facility (when increased density makes it appropriate)		
Committed Areas			
1. Lighthouse Way	Rural (except for existing public water connection		
2. Shinglehouse Slough Road			
3. Shelley Road/Crest Acres			
4. Rink Creek			
5. All Others	Rural		
Recreation Developments	Rural, Community-owned facility		
Major Unincorporated Industrial Areas	Urban where extension is feasible; otherwise, rural		
(North Spit, and Highway 101			
Corridor			
from Hauser to Millington)			
All of B			
All Other Rural Areas	Rural		

Summary of Chart:

The major services most typical of urban development, i.e., public sewer and water. However, the presence of public water and sewer cannot always be equated with urban development. Services to industrial areas under this scheme would not provide for housing development but would, instead, provide maximum utilization of Coos County's scarce industrial sites. Additionally, rural centers and certain committed areas are proposed for public service provision, either to allow them to reach expected densities strictly within their boundaries, or to concede that future conditions may make such provision necessary from a public health standpoint.

Although it is not the function of this inventory and assessment to formulate policies, it is appropriate to mention two types of policy areas worthy of consideration:

1. To ensure that the comprehensive plan is not detrimental to the public health, safety, and welfare, an eventual policy may prove necessary that permits public service extension to any area where the responsible health authority (such as Oregon Department of Environmental Quality) determines such services to be necessary to support existing uses.

2. A "permit" system might be considered as a policy or implementation requirement where any district wishing to extend services would first be required to obtain a simple clearance or permit from the county. The permit or clearance letter would simply state that the proposed extension conforms to the comprehensive plan. This would ensure that services would not be extended first and then later found to conflict with the comprehensive plan.

D. Co-ordination of Service Provision

Although the Coos County Board of Commissioners has overall responsibility to ensure that all plans are co-ordinated, each city or special district must share some of the burden to ensure that its plan is co-ordinated with the comprehensive plan.

All plans that involve land use must conform to the comprehensive plan when the latter is acknowledged. If a special district and the county cannot reach a point where their plans are mutually compatible, the special district will <u>not</u> have legal standing to appeal the comprehensive plan unless the special district has participated to the proper extent in the comprehensive planning process. If it cannot appeal, the special district is then obligated to make its plans conform to the county comprehensive plan.

Coos County has made two specific written requests, attached as Appendix PFS-1 and PFS-2, to help fulfill its responsibility to ensure that all plans are co-ordinated. (Continuous current support is provided through the office of the County Planning Co-ordinator).

(DRAFT)

TABLE 3

EXISTING SIGNED AGREEMENTS

igned	Special Provisions	Timetables
/18/79	None	In Master Plan
/31/79	None	None
/20/79	None	"Appendix A" of agreement
/30/79	Appendix B of agreement	"Appendix A" of agreement
/9/79	"County Plan shall be deemed satisfactory for the purposes of the district"	None
/7/79	None	FBA to be decided
/18/79	None	Appendix A of agreement
	18/79 31/79 20/79 30/79 9/79	None None None None None None Order="2"> None None None None Order="2"> None

Appendix B is a copy of a letter sent to all special districts on November 30, 1979, asking for specific input on public facilities and services. Table 4 lists those who have responded to that letter and whether the requested information was provided.

TABLE 4 Responses to Nov. 30 CCPD Request for Input

Jurisdiction	Existing signed agreement	Demand/Capacity information provided?
SWOCC	yes -6/18/79	Yes (in Plans)
CB/NB Water Board	no	Yes
Charleston RFPD	no	Partially
City of Lakeside	Yes - 4/9/79	Yes (in Plans)
City of Bandon	No	
City of Coos Bay	Yes - 9/20/79	N/A (not applicable)
Catching Inlet Drainage	no	
District		
Charleston Sanitary District	Yes - 3/30/79	Partially
Bay Park/Millington Water	no	Partially
District		
City of North Bend	No	Partially
Coos ESD	No	N/A?

These tables show that many special districts have failed to participate to the necessary extent in coordination of plans. The final draft of this report will update the tables to show any changes in status of cooperative agreements (and will also update the inventories in Part II).

The cooperative agreements ensure that these services are timed to support appropriate development by describing:

What service is being provided

Where the service will be provided (including maps)

When the service will be provided

Who shall provide the service.

In some cases, such as school districts, boundaries have already been established throughout the entire county that show who provides a particular service in a specific area. In other cases, such as water and sanitary districts, some areas are not and will not be served by any particular district, but special care must be taken t ensure that service provision will be provided when needed and not provided when not needed.

Appendix A

DRAFT

Coos County Planning Department Courthouse, Coquille Oregon 97423

David M. Richey, Director

March 20, 1979

TO : Special Districts

FROM : Coos County Planning Department

RE : Cooperative Agreements

As you know special district plans or programs which affect land use are required by statute to be coordinated with city and county comprehensive plans. One method of achieving this coordination is by entering into cooperative agreements with cities and counties. Since the Coos County Comprehensive Plan is nearing completion, the time for developing such agreements is growing short.

Your right to object to a city or county's request for acknowledgement from LCDC that its comprehensive plan conforms to the state land use planning goals depends upon your participation in that jurisdiction's planning process. Since special district activities must comply with the Comprehensive Plan when it is acknowledged, it is in your interest to participate in the planning process.

A sample coordination agreement is enclosed to give you an idea of what is needed. Each district has the responsibility of determining which of its activities affect land use and which LCDC state planning goals should be addressed. Suggestions for various districts are attached. Please feel free to consult with the County Planning Department for further help and advice is you decide an agreement with the County will be helpful to your district.

CONTACT: David M. Richey, Director

Coos County Planning Department

396-3121

SPECIAL DISTRICT COOPERATIVE AGREEMENT

This agreement, made and entered into this _	day of	, 19 by
and between the	·	,
hereinafter referred to as the "District" and Co	oos County, hereinafter refer	rred to as the "County:'
WIT	NESSETH:	

WHEREAS, ORS 215.100 provides for cooperation in planning between the various levels of government of this state; and

WHEREAS, ORS 190.010 authorized governmental units to contract and enter into join operational agreements with one another; and

WHEREAS, ORS 197.185 provides for special districts to exercise their planning duties, powers and responsibilities and to take actions that are authorized by law with respect to programs affecting land use, including the annexation of territory, in accordance with statewide planning goals; and to coordinate such actions with local units of government.

NOW, THERFORE, the District and the County, each in consideratin of the other agree as follows:

- (1) the District shall have the opportunity to participate in the County planning program in the following ways:
 - a) The County shall notify and invite comment from the District on pertinent planning and zoning studies and activities as they are prepared and undertaken.

4.7 TRANSPORTATION

I. Introduction

"Mobility, frequently acclaimed as our fifth freedom, is the very fiber of our democratic society. It is the backbone of industry, and the principal sustenance of the urban community. Without mobility, progress in our community is stifled; with it, growth and prosperity prevail.

"Mobility manifests itself in transportation. Transportation is not automobiles, buses, trains, airplanes, and other transport objects, but <u>people and goods</u>. The desires of people and their need for goods create the demand for transportation." I

The transportation facilities of Coos County are a critical concern in the comprehensive planning process since these facilities produce direct impacts on land uses, the economy, the environment and the social systems. An inadequate or poorly designed system will create inappropriate land uses, adverse impacts, and a poorly functioning economy. A good sound transportation plan is a necessity in considering the future of any area.

Since the transportation system is the lifeblood of a community's economic and social health it is desirable for a comprehensive plan to effectively coordinate all <u>modes</u> of transportation that form the greater system. That task is exceedingly difficult, however, because of problems common to many communities.

- i. <u>Fragmentation.</u> While it is easy to conceive of transportation as an integrated system, the reality is a fragmented assortment of transportation activities, each planned, funded and presided over by an assortment of agencies at separate levels of government.
- ii. <u>Lack of Resources (Money & Time)</u>. In the setting just described, no single agency has the funding or the time necessary to produce a coordinated planning effort that would ensure a proper balance of systems to meet the changing needs of people and to overcome existing and expected problems.

An effective, thorough transportation study that links together the fragmented agencies plans and studies would likely require at least one year of full-time effort. Such a review would also require collection of highly specific data such as capacity of individual systems and forecast demand for each. This element has been structured to respond to these problems within the existing allowable time constraints by focusing on the most important and basic local transportation issues in a manner sufficient to comply with the requirements of State Goal #12 (Transportation).

II. Existing Modes Inventory

A. Mass Transit

Existing public mass transit in Coos County is provided in three categories:

- i. Intercity Bus Service (Greyhound);
- ii. Intracity transportation of the disadvantaged (Senior Activity Center);
- iii. Local taxi cab service (Radio Cab and Yellow Cab).

¹ <u>Alternatives for Improving Urban Transportation</u>, U.S. Department of Transportation, Federal Highway Administration, Report #77-215 (October 1977) pages 1-11.

INTERCITY BUS SERVICE

"Greyhound Lines, Inc. is the only company providing passenger and express services into and out of the Coos Bay area. Presently, ten buses depart Coos Bay each day under the following schedule:

- 1. Four buses travel north to Portland via Highway 101.
- 2. Three buses travel south to San Francisco via Highway 101.
- 3. Two buses travel over Highway 42 to Myrtle Point, one bus continuing on to Roseburg.
- 4. One bus travels to Reedsport, there making connections over Highway 38 to Eugene.²

Scheduled Bus Stops in Coos County

Coos Bay/North Bend Coquille Myrtle Point Riverton Bandon

In addition, the communities of Norway, Bridge, and Remote lie on the highways where Greyhound operates. Broadbent, Sumner and Lakeside are within five miles of these bus routes. Powers is the only community with a population of over 250 that is not within five miles of service. Generally, commercial bus schedules are oriented towards the long haul. They are not specifically designed for the convenience of people traveling from smaller communities to urban or regional centers to shop or conduct business. For the most part few buses are scheduled to and from communities. Arrival times may be in the late night or early morning hours; scheduled departures for the return trip may not allow sufficient time to complete business without an overnight layover or may require a long wait after business is completed.

Once the passenger arrives in an urban area, the intercity bus traveler is confronted with a mobility problem: How to get around town to carry out business. There are no public transit systems in any of the County's cities. Taxi service, when available, is prohibitively expensive for some. In Oregon cities with transit systems, the public transit system is usually not connected with the intercity bus system.

For its 1975 study on intercity bus travel, the Oregon Department of Transportation evaluated the level of intercity bus service to Oregon communities on the basis of, among other things, schedule convenience (number of weekday arrivals, with the most points being given for daytime arrivals), the quality of the station facilities, whether the community is listed in Russel's Guide, which contains schedules for most U.S. bus companies, and the amount of through service to major cities. Scores for coastal towns were lower than for

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² Coos Bay Proposed Comprehensive Plan

those of the Willamette Valley region. Of the 50 coastal communities evaluated, the scores of 45 were in the bottom 20. Especially noteworthy is that all cities in Coos County were in the bottom half of the scoring. Further discussion and exact scoring is contained with the Transportation section of the Background Document.

SENIOR ACTIVITY

The North Bend Senior Activity Center provides a unique mass transportation service to the residents of Coos County. Funded from a variety of sources, a fleet of vans operates out of the Senior Activity Center and provides the following services:

1. Regular route service to senior citizens and to the general public on a limited basis

Call in service to seniors

- Contact service to the Star of Hope and the Seaman's Center
- Limited community service to Bandon and Langlois b.
- Hot meals delivery to the homebound c.
- d. Escort service
- Homemaker service e
- Transportation from hospitals and rest homes for seniors f.
- Transportation for the disadvantaged g.

1. Taxi Cab Service

Radio Cab and Yellow Cab companies provide service to North Bend, Coos Bay, Eastside, Charleston, and to some areas outside these cities' limits. Taxi service is also provided for the City of Coquille by a grant that allows the city to accept donations for the service but forbids fees. The large majority of users are senior citizens.

Air Α.

Air travel is frequently used for the transportation of passengers, freight and mail between population centers. Although not competitive with other transportation systems in terms of cost per mile or energy consumption, air travel and shipping are time efficient. For many passengers lower travel times are a convenience; for some business and cargoes they are of major importance. Most of the air freight generated in the North Bend/Coos Bay area is seafood, which is highly perishable and must be moved quickly. Incoming freight is primarily equipment for machinery companies and the mills where delays in receiving replacement parts can be extremely costly. The airways also serve to link isolated communities and provide them with quick access to important services, such as medical care. Powers, for instance, is 45 minutes by car from the nearest doctor; by air the time is ten to twenty minutes. There are recreational uses as well, such as pleasure flying and access to remote recreational areas.

Regional Air Service³ 1.

"Air travel for Coos Bay/North Bend residents has long been provided at the North Bend Municipal Airport located on the northern reaches of the North

³ Ibid

Bend city limits. It provides needed freight and passenger service and is the only airport on the southwest coast providing commercial interstate air travel. The future of adequate air service is accepted as a regional concern for the economy and well being of county residents. Therefore, in 1978 the jurisdictions of Coos Bay, North Bend, and Coos County combined efforts to design a regional airport element to be included in their respective comprehensive plans."⁴

2. **Local Airports**

Below is a list of local airports in the County, indicating ownership and whether the facility is included in the National Airport System Plan (NASP) and/or in the Oregon Airport System Plan (OASP).

Table #TR-1

AIRPORT	OWNERSHIP	INCLUDED IN NASP	INCLUDED IN OASP	CLASS
Bandon	State	Yes	Yes	BU
Lakeside	State	No	Yes	NSO
Norway	Private	No	Yes	BU/PP
Powers	State	No	Yes	CA

5

In the NASP, airports are classified in terms of both their operational role and their functional role. Relevant operational classifications for regional airports are Basic Utility (BU) and General Utility (GU). Basic Utility airports can accommodate "about 95 percent of the general aviation propeller fleet under 12,000 pounds" while General Utility airports can accommodate "substantially all general aviation propeller aircraft under 12,500 pounds."

All OASP airports in the region except North Bend fall in the Basic Utility category. Those which are non-NASP are additionally classified by the State as Community Access (serve communities), Land Access (service recreational and open land areas only), Private Protect (privately owned but used by the public), or Non-System State-Owned Airports. The last category is for those Stateowned airports which do not actually qualify for entry into the OASP. Transfer of such airports to private ownership has been recommended and they are included in the OASP only until such transfer can be accomplished. A summary of the characteristics of County OASP airports is available in Table #TR-2

⁴ Proposed commercial airport siting element: An element of the City of North Bend, the City of Coos Bay, and the Coos County comprehensive land use plans, March 1978.

Summary, Oregon Aviation System Plan, 1974.

Table #TR-2
COOS COUNTY AIRPORTS PHYSICAL FACILITIES AND SERVICES

AIRPORT	ACRES	WIDTH & LENGTH	SURFACE	LIGHTS ^a	FBO SERVICE ^b
Bandon	65	2,595 x 50	Asphalt	L	E,I,Q,R,Z
Lakeside	140	2,150 x 150	Turf	None	
North Bend	619	4,603 x 150	Asphalt	Н	F,E,R,C,I,Z
Municipal		5,045 x 150	Asphalt	M	Q,T,M,P
		4,022 x 150	Asphalt	L	
Powers	77	2,500 x 110	Turf	None	

a. L – Low Intensity, M – Medium Intensity, H – High Intensity

b. Fixed Base Operator Services

C – Charter P – Patrol

I – Instruction T – Air Taxi

M - Air Ambulance $Z - Aircraft Rental^6$

Since late 1979, there has been no certificated air service at North Bend Municipal Airport, the only airport in the County to have been served by a certificated air carrier.

As of February 15, 1980, the North Bend Municipal Airport is served by three commuter airlines with a combined service of 10 freitghts inbound and 10 flights outbound per day, with flights available generally throughout the daylight hours. (Schedules are not included because they are subject to occasional revision.) The flights/day are as follows:

	AIR OREGON	FAR WEST	CENTURY
Departures	5/day to Portland	2/day to Medford	1/day to San Francisco via E

day to Portland 2/day to Medford 1/day to San Francisco via Eureka & Crescent City

Crescent Cl

3/day w/stop in Eugene 2/day to Portland

(direct)

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⁶ <u>Public Transportation in Coos and Curry Counties: Draft Inventory of Systems and Services</u>, published by CCCOG, 1977; updated by Coos County Planning Department, 1980.

2/day to Portland (direct) (Hillsboro)

Arrivals 5/day from Portland 2/day from Medford 1/day from San Francisco via Crescent

City & Eureka

2/day direct 2/day from Portland

3/day w/stop in Eugene

Flights/day total 10 inbound and 10 outbound, with Century Airlines tentatively scheduled to add two (2) more flights per day by March 15, 1980.

Far West and Century Airlines use 8-passenger planes while Air Oregon utilizes the 19-passenger "Metroliner." The Metroliner has an 1100-pound cargo capacity on the tail hold and 500-pound capacity on the nose hold, but a flight with 19 passengers aboard would likely use all cargo space for luggage.⁸

Table #TR-3A

CERTIFICATED AIRLINE PASSENGER TRAFFIC NORTH BEND MUNICIPAL AIRPORT 1968 - 2000

Historical	Enplaned	Aircraft	Average Daily	Ave. Passenger
	Passengers	Departures	Departures	Enplaned/Departure
1968	14,179	1,729	4.7	8.2
1969	13,259	1,529	4.2	8.7
1970	12,004	1,440	3.9	8.3
1971	10,464	1,375	3.8	7.6
1972	9,241	945	2.6	9.8
1973	13,183	1,281	3.5	10.3
1974	15,473	1,204	3.3	12.9
1975	15,325	1,249	3.4	12.3
1976	16,496	1,168	3.2	14.1
1977	17,233	1063	2.9	16.2

 $^{^7}$ Air Oregon, Far West Airlines, Cenury Airlines, Terry Travel (Coos Bay). 8 Air Oregon.

AIR CARRIER SERVICE (ONLY)

1980	20,670	1,100	3.0	18.8
1985	25,670	1,100	3.0	23.3
1990	30,670	1,100	3.0	27.9
1995	35,650	1,100	3.0	32.4
2000	40,660	1,100	3.0	37.0

NO AIR CARRIER SERVICE (COMMUTER ONLY)*

1980	20,670	2,953	8.1	7.0
		_		
1985	25,670	2,850	7.8	9.0
1990	30,670	3,067	8.4	10.0
1995	35,650	2,970	8.1	12.0
2000	40,660	2,710	7.4	15.0

• Assumes travel to Portland and San Francisco

⁹ North Bend Airport Master Plan.

Table #TR-3B

NORTH BEND MUNICIPAL AIRPORT ENPLANED AIR CARGO AND MAIL 1972 - 2000

(Tons)

Historical	Cargo	Mail	TOTAL	Daily Average
1972	18.4	17.1	35.5	0.10
1973	19.2	26.4	45.6	0.12
1974	14.9	24.4	39.9	0.11
1975	20.4	31.2	51.6	0.14
1976	21.8	30.4	52.2	0.14
1977	29.3	28.9	58.2	0.16

Table #TR-3C

FORECASTS OF BASED AIRCRAFT NORTH BEND MUNICIPAL AIRPORT

Year		1976		FAA-NASP	1972	1979
	State of Oregon			Master Plan	Master Plan	
	High	Medium	Low			Update
1978	88	86	86	68	73	78
1980	95	93	93	69	78	80
1985	103	102	100	73	93	92
1990	109	106	103	-	110	106
1995	115	111	107	-	-	-
2000	-	-	-	-	-	136

Table #TR-3D

BANDON STATE AIRPORT AIRCRAFT & OPERATIONS FORECAST

	1980	1985	1990	1995	2000
Based Aircraft::					
Single Engine	40	49	58	69	80
Multiple Engine	3	4	5	6	7
Helicopter	2	2	3	3	3
Business Jet	-	-	-	-	-
Total	45	55	66	78	90
Annual Aircraft Operations					
By type of Operation					
Local	22,000	27,500	34,000	40,000	49,000
Itinerant	15,000	18,500	23,000	27,000	32,000
Total	37,000	46,000	57,000	67,000	81,000
Total	37,000	40,000	37,000	07,000	81,000
Instrument Operations	1,500	1,850	2,300	2,700	3,250
Actual Instrument					
Approaches	370	460	570	670	810
By Aircraft					
Multi-engine prop.	3,500	4,400	5,900	6.800	8,400
Single-engine prop.	31,900	39,600	48,700	57,700	69,400
Helicopter	1,600	2,000	2,400	2,800	3,200
Aircraft Operations Distribution					
Peak Month	4,625	5,750	7,150	8,400	10,150
Peak Week	1,150	1,450	1,800	2,100	2,550
Ave. Day of Peak Month	185	230	285	335	405
Peak Hour of Ave. Day-Peak					
Month	35	45	55	65	75
(Commuter Operations)	1,040	1,040	1,560	1,560	2,080
					10

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¹⁰ Waddell Engineering Corp., 1979.

Table #TR-3C

AIRCRAFT OPERATIONS 1976 – 1995

	Lakeside	Norway	Powers
1976	2000	4400	600
1980	3100	5700	1600
1985	3100	6300	1700
1995	3900	7500	1800

Table #TR – 3D

BASED AIRCRAFT 1975 - 1995

	Lakeside	Norway	Powers
1976	4	11	0
1980	6	14	2
1985	6	15	2
1995	7	17	2

Inventory

The State owned airports of Bandon, Lakeside and Powers have been identified on a map at a scale of 1" = 800' and include the designation of:

1. Primary Surface. A surface longitudinally centered on a runway. The following primary surface dimensions shall apply to the respective airports.

	Length	Width
Bandon	3700'	500'
Lakeside	2800'	50'
Powers	2500'	100'

2. Approach Zone. A surface longitudinally centered on the extended runway centerline for a horizontal distance of 3000 ft. from the end of the primary surface, the inner edge being the width of the primary surface and the outer edge being of the following width:

¹¹ Oregon Aeronautics Division, Department of Transportation.

Bandon 1400 ft. wide Lakeside 900 ft. wide Powers 900 ft. wide

- 3. Transitional Zone. A surface extending outward at 90 degree angles to and 1050 feet from the sides of the Primary Surface and tapering to the ends of the Approach Zone.
- 4. Horizontal/Conical Zone. A surface extending 9000 ft. around the Primary Surface and is established by swinging arcs of 9000 ft. radii from the center of each end of the Primary Surface of each runway and connecting the adjacent arcs by lines tangent there-to. This zone does not include the Approach or Transition Zones.

B. Waterborne

Port of Coos Bay

The Port of Coos Bay has an administrative area of 474 square miles which encompasses the entire estuary of the Coos River, portions of several other rivers draining into the Bay, and the cities of Coos Bay, North Bend, and Eastside. The major docks of the Port are concentrated along the three to four mile eastern waterfront of Coos Bay/North Bend. Several other docks are located on the western coastline of the peninsula and in the vicinity of Jordan Cove. Inside and immediately to the south of the entrance to the estuary, the Charleston small boat basin provides moorage for a significant commercial fishing fleet.

"The Port of Coos Bay ministers to the Coos River basin area including all of the Coos estuary. Additionally, it serves as a central, domestic and foreign shipping point for much of the hinterland (middle and southern Willamette Valley). Contemporary shipping activity has changed only slightly from its historic beginnings. Coos Bay still exports forest products and is known to handle the world's largest volume of timber products. However, the complexion of the shipping has changed to include not only raw logs and finished products (lumber, plywood, linerboard, pulp and paper)...but also newly prized wood chips. The tonnage handled through the Port of Coos Bay since 1966 is shown in Table #TR-5. These data were prepared from several planning studies and compiled in a report entitled The Feasability of Port Development on Coos Bay. This report shows that the export of wood chips dramatically increased during the 1970s from a mere 300,000 tons to over 3.6 million tons per year, and concludes that these exports will increase with worldwide demand (Baldwin 1977:4-6)." 12

The traffic of forest products has remained relatively constant and the Corps of Engineers predicts a decline in log shipments while the Greenacres study expects them to remain constant (Baldwin: 1977-5). "However, the total forest resource tonnage has

¹² Coos Bay Proposed Comprehensive Plan.

definitely increased and despite the debatable future of forest resources, exports are expected to grow" (Table #TR-6). 13

Large integrated forest products processing plants are situated next to many of these docks, particularly on the Coos Bay/North Bend waterfront. Forest products companies have been attracted to the Port because a dockside location offers them particular cost savings and because fewer loading and unloading operations of raw and finished products are required.

The waterfront plants have limited flexibility in selecting alternative transport routes for these products, since many of the docks are served by the Southern Pacific Railroad and U.S. Highway 101. Seven of the docks have direct rail access via spur tracks; several others lie adjacent to Southern Pacific line.

The Greenacres study estimated that of the 179.1 million cubic feet of wood leaving Coos Bay in 1972, roughly 85 percent was shipped out by water, 6.2 percent was exported by rail and 8.9 percent moved overland by truck (see Figure #T - 1).



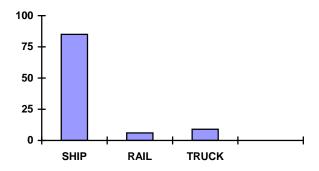
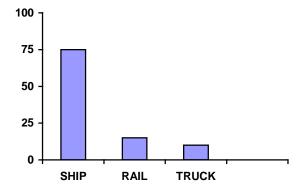


FIGURE #T-2 MODE OF EXPORT – LOCALLY PROCESSED PRODUCTS



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¹³ Ibid.

Approximately 45 percent of the total volume of wood fiber entering Coos Bay area was processed at local sawmills, pulp mills and plywood plants. Figure #T - 2 shows that, of the forest products processed at and subsequently exported from these mills and plants, approximately 75 percent were shipped through the port, 15 percent were exported by rail, and 10 percent moved out by truck.

Lumber and plywood are shipped from the Port of Coos Bay primarily to Australian and Japanese markets. Chips, a rapidly increasing export item (644,000 tons in 1965 and 3,537,000 tons in 1973), and logs are shipped almost exclusively to Japan in ships especially equipped for these purposes. Eighty percent of the Port's foreign trade, by volume, is with Japan, largely due to these last two commodities.

"The Port currently can accommodate cargo shipped by barge or deep-draft vessel. Expansion of the harbor channel was recently completed by the U.S. Army Corps of Engineers, deepening it to 35 feet and widening it to 45 feet. Vessel size has grown over the past decade (Table #TR – 4) and the channelization grew to meet existing ship usage, effectively augment ship loads, and lessen waiting time (Port 1977:13). The Port berths can accommodate a total of 16 vessels, combining deep-draft and barge or small coastal vessels as follows: logs (loading either from water or from land – 3 berths; chips – 5 berths; lumber products on ships – 5 berths; lumber products on barges – 3 berths."

Table #TR – 4

Design Vessels for Coos Bay Channel Improvement Study

Corps of Engineers – 1975 Study

Vessel Type	Length	Beam	Draft	DWT
Log Ship	487'	74'	32'-0"	18,000
Chip Ship				
Small	580'	82'	32'-0"	26,000
Large	648'	98'	36'-0"	42,000
General Cargo Ship				
U.S. Flag (C-4)	523'	72'	32'-9"	15,000
Foreign	564'	72'	34'-7"	27,500
Tankers				
U.S. Flag	650'	96'	34'-0"	34,000
				15

"The Port study by Baldwin concludes that the present size of Port facilities is adequate to meet current demands with perhaps slight growth. 'The port, in

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¹⁴ Ibid.

¹⁵ Corps of Engineers.

total, is adequately handling today's demand but has almost no flexibility to respond to either increased demand from new sources, or changes in shipping technology and economics.' (port 1977:99) Consequently, the Port envisions a future need for expansion and alterations in light of long-term goals depending upon the lumber industry and its resources and the burgeoning fish industry." ¹⁶ It is anticipated that forest products and petroleum products will continue to account for the great bulk of water borne traffic in Coos Bay in the future. Forest resources and products are the economic mainstays of Coos Bay and its tributary area. Petroleum products will continue to be imported due to the lack of indigenous petroleum resources; these should continue to overshadow all other water borne imports to the coastal area.

Table #TR – 5
Waterborne Outbound Traffic of Forest Products
Coos Bay

Short Tons

Year	Logs	Chips		Products		Total*
			Foreign		Domestic	
1966	201,705	372,582	298,117		517,292	1,389,696
1970	512,971	2,308,833	379,113		410,421	3,611,338
1973	695,814	2,822,880	512,633		423,648	4,454,975
1975	565,570	3,079,726	424,567		310,223	4,380,086
1976	574,219	3,668,307		816,493		5,059,419
1977	492,358	3,870,020		729,591		5,091,969
1978	572,314	3,406,085		770,711		4,749,109.9
1979	522,349	4,057,403		809,970		5,389,723

• (excludes "General Outbound" category)

¹⁶ Coos Bay Proposed Comprehensive Plan.

Baldwin & Assoc.: (1966-1976) The Feasibility of Port Development on Coos Bay (1977) (1977-1979): Port of Coos Bay.

Table #TR – 6

Projections for Waterborne Traffic of Forest Products Coos Bay

Short Tons

Products

_	T		1		
Year/	Logs	Chips	Foreign	Domestic	Total
Source					
1980					
CoE	350,000	5,000,000	473,000	300,000	6,123,000
GA	700,000	5,100,000	500,000	300,000	6,600,000
1990					
CoE	350,000	5,000,000	473,000	300,000	6,123,000
GA	700,000	6,200,000	500,000	300,000	7,700,000
2000					
CoE	350,000	5,000,000	473,000	300,000	6,123,000
GA	700,000	7,300,000	500,000	300,000	8,800,000

Table #TR – 7

Waterborne Traffic of Petroleum Products Coos Bay

Short Tons

Year	Total Petroleum Products	
1966	256,932	
1970	261,393	
1973	319,562	
1975	282,407	

Port of Bandon

(from Baldwin & Assoc., op cit)

 ¹⁸ CoE: Corps of Engineers, Reference 1
 GA: Greenacres, Reference 2 (From Baldwin & Assoc., op cit)

¹⁹ 1966-73: Reference 1 1975 : Reference 4

The Port of Bandon covers the south coastal portion of Coos County (see Figure #2). Its operations are headquartered in Bandon, which had a 1978 population of 2,450. The harbor at Bandon, which is on the Coquille River, has a channel authorized to a depth of 13 feet extending 1.3 miles upstream from the river mouth. The Port primarily serves the residents of Coos and Curry Counties, providing facilities for pleasure craft and fishing boats which come from all over the West Coast.

Facilities offered by the Port of Bandon include a small boat basin and one open dock (see Figure #2). The dock facility provides some limited storage space, which is used for wood products shipments, and seafood processing. During the peak summer months, from 75-125 boats are moored at the small boat basin. This figure drops down to around 20 boats per month during the slack winter season. During 1979, approximately 34 million board feet of lumber was shipped through the Port by Moore Mill Lumber Company (see Table #TR – 8). Most of these shipments were sent to San Francisco and San Pedro via large barges. Another 18 million board feet from Moore Mill and Rogge Lumber Company was trucked to Coos Bay.

Table~#TR-8 1979~Wood~Products~Exports~from~the~Port~of~Bandon

20

• Docks under repair during 1979; 1976 shipments = 7 million bf

At this time, plans are in the works for a major expansion and improvement of the Port's small boat basin. The improvements are expected to double or triple the Port's capacity especially in commercial fishing boat moorage.

Port of Coquille

The Port of Coquille River covers the southeast third of Coos County. The largest city in the port district is Myrtle Point, with a 1978 population of 3,000.

The primary function of the Port is river channel maintenance. The major problems are caused by slides, snags, caving banks and flooding. These

²⁰ Port of Bandon

maintenance problems are usually dealt with by contracting out for professional services, since the Port has no paid staff.

The future of the Port will probably continue to be maintenance, although there is a possibility that some docking facilities and an industrial park may be developed in the future.

D. **Pipelines**

Pipelines are an extremely efficient form of transportation. The cost per mile of shipping liquid commodities through pipelines is very inexpensive. Unforturnately, there are some critical problems with this form of transportation. Most commodities cannot be converted to a form which will lend itself to shipment.

The cost of pipeline construction can be prohibitive when easements are difficult or impossible to obtain. There are also many environmental constraints. Finally, government controls, when added with the previously mentioned factors, severely limit the feasible use of pipelines for some commodities. The future of pipelines other than public water or sewage facilities in Coos County is very bleak.

The Coos Bay/North Bend Water Board has plans to construct pipelines to transport water from its various proposed reservoir sites to points of distribution.

E. Rail

Rail service to Coos County is provided by the Southern Pacific Transportation Company in the form of a "Branch Line," which runs from Eugene west to Cushman, and then south to Coos Bay, Coquille, and Myrtle Point (see Figure #3). The existing rail system provides average daily year-round service to the County in the following manner:

- 1. One roundtrip train between Myrtle Point and Coos Bay, with an average of 25 cars per train (6 days per week).
- 2. One roundtrip train between Coos Bay and Eugene with an average of 50 cars per train.
- 3. One roundtrip train between Reedsport and Eugene with an average of 50 cars per train.

With this type of schedule, the system is currently not operating at maximum capacity. Any significant increase in the volume of traffic on the system would require signal developments or restoration of train order operators.

Routing of traffic and goods on the Branch Line is done primarily through the Coos Bay office. There are no other terminal type offices on the branch line, although there are several smaller non-agency sidings along the line which are listed from north to south as follows:

Lakeside	Hayden	Hauser
Overland	Rogers	Chrome

Cordes	Cedar Point	North Bend
Coquille	McCormac	Johnson
Cleo	Norway	Myrtle Point

The Coos Bay Branch of Southern Pacific handles many types of commodities, by far the most important of which is forest products.

Some of the more important forest related goods are wood chips, cardboard box line board, plywood and saw timber. These items are both imported and exported from the area. Other goods which are primarily imported into the area include animal and poultry feed, propane gas and chemicals. Other combination import-export items would include commercial goods, which account for 20-25 loads per day, and petroleum products.

At present, there is no Amtrack passenger service in Coos County. Due to lack of significant demand there will probably be none offered in the near future.

According to the Oregon Department of Transportation's <u>Oregon Rail Plan</u> (September 1978), "Federal Railroad Administration track classes as determined by the track inspection ptrogram of the Oregon Public Utility Commissioner provide an indication of the quality of track in the state. Class 1 is the lowest class of rail over which the maximum speed is 10 mph. Class 1 track is acceptable for short branches. For longer routes higher classes are preferred. The following table relates track classes to allowable speeds.

FRA Track Classes and Maximum Speeds

Class	Freight Train Passenger Train	
1	10 miles per hour	15 miles per hour
2	25 miles per hour	30 miles per hour
3	40 miles per hour	60 miles per hour
4	60 miles per hour	80 miles per hour
5	80 miles per hour	90 miles per hour
6	110 miles per hour	110 miles per hour

The highest track class in the state is Class 5. Portions of the mainlines of the Southern Pacific and Union Pacific are Class 5 track."

Coos County's track is classed as follows:

From Myrtle Point to Eastside : <u>Class 2</u>

From Eastside (Through Coos Bay & North Bend) to the north side of the

Coos Bay railroad bridge: Class 1

From the Coos Bay railroad bridge

through Reedsport : Class 2

These relatively slow track speeds in Coos County when combined with (a) similar slow speeds to Eugene and (b) the distance from the high speed mainlines, suggests that the rail service quality in Coos County reduces the competitiveness of products shipped from the local area.

F. **Highways**

1. U.S. 101

U.S. Highway 101 is a major transportation route, which runs the length of the County and serves as the only fully functional north-south link between Coos County and other coastal counties. Highway 101 is also an indirect east-west connection, as it provides access to Highway 38, which runs east to I-5 via Reedsport, Elkton and Drain.

The present physical condition of U.S. 101 ranges from good to extremely deteriorated according to the State Highway System Preservation Study²¹. Some of the worst areas, notably that section from Bunker Hill south to Davis Slough, are scheduled for immediate repair (see ODOT's Six Year Plan). In addition to maintenance problems, Highway 101 is also characterized by extremely high seasonal volumes of traffic as can be viewed on Figure #4.

2. State Highway 42

State Highway 42 runs from just south of Coos Bay east to I-5 via Coquille, Myrtle Point and Roseburg. It serves as the primary east-west connection for the County. Highway 42 also provides linkage between the smaller communities in the Coquille Valley.

The existing physical condition of this highway is slightly to moderately deteriorated. The volume of traffic on Highway 42 is moderate except for the section between Coos Bay and Coquille, which averages between 5,000 and 10,000 vehicles per day (see Figure #4).

While the actual physical condition of the road surface is only slightly to moderately deteriorated, other conditions severely limit usage of Highway 42... These include such factors as sinuosity, narrowness of travel surface, number of accidents and delays caused by congestion. These problems have to be corrected in the future if Highway 42 is going to achieve its optimum efficiency as an east-west transportation link for Coos County.

3. State Highway 38

Although located entirely outside Coos County, this highway serves in a similar fashion to Highway 42 to unite the County with the markets and resources of the Willamette Valley. Highway 38 begins in Reedsport and proceeds generally along the Umpqua River, veering then northward to connect with Interstate 5 near Drain.

²¹ Oregon Department of Transportation (ODOT), 1979

Highway 38 is also similar to Highway 42 in that "both highways are comparatively winding and narrow (two lanes wide in most areas). Hazardous conditions are heightened by frequent landslides caused by the combination of slope and water-saturated soils. Improvements have been made on each highway to widen and straighten inferior segments. Future improvements are planned to make these routes more passable."²²

4. State Highway 240

Commonly called the Cape Arago Highway, it begins at the intersection of Highway 101 and Virginia Avenue, North Bend and travels through North Bend and Coos Bay in a westerly direction over Virginia, southerly through Broadway and then westerly again over Newmark. At this point it veers South, following the bay to Charleston, and eventually dead-ends at Cape Arago State Park. "This highway serves bay area traffic journeying to the ocean beach areas and to the state and county parks. However, it is a crucial arterial delivering daily traffic to the North Bend business district and satellite shopping/commercial areas; it is a direct route to Empire and Charleston; and is the sole access to Southwestern Oregon Community College." The average daily traffic for the entire highway is 9,087 vehicles. However, this figure is a misleading indicator of perceived traffic for two important reasons:

- a. Average daily traffic in the Coos Bay and North Bend portion is nearly 13,000 vehicles, because the highway serves as an important city arterial.
- b. High seasonal use of the small boat basin in the summer months swells traffic volume. The impact of the traffic increase is made more severe by the several block-long congested traffic lines caused by increased use of the South Slough drawbridge during the same time period.

5. Highway 243

"Highway 243, the Empire-Coos Bay Highway, is an arterial entirely within the Coos Bay city limits linking traffic from the downtown business district to the Empire area. It begins its east-west route at Highway 101 with a seven-bloock one-way couplet (commercial and Anderson Streets) ending at 7th Street. Here the highway joins into a four-lane thoroughfare on Central Avenue, junctures with Ocean Boulevard, and then extends north-southerly to its terminus at Highway 240. It is 3.57 miles in length and in 1976 had an average daily traffic of 7,341 vehicles.

"Highway 243 functions as part of the circulatory route with downtown Coos Bay and as another avenue to Empire and Charleston. It also provides access to the Coos Bay medical district off Woodland Drive and to a residential area currently experiencing new residential and professional development."²⁴

6. State Highway 241

²⁴ Ibid.

²² Coos Bay Proposed Comprehensive Plan.

²³ Ebid.

The Allegany highway runs from Eastside northeast to Allegany. It is in a moderately deteriorated physical condition, but is not subjected to particularly high volumes of residential traffic, although it does have a heavy volume of industrial traffic.

7. State Highway 242

The Powers road proceeds from Myrtle Point south to Powers. It is in moderately to extremely deteriorated condition; much of the maintenance problems occur because the highway overlays a geologic hazard area.

8. State Highway 42S

This highway proceeds from Coquille west to Bandon. The State Highway Department has made a number of improvements, although the most serious problem, poor alignment (horizontal and vertical), still exists.

9. County Roads

The primary function of the Coos County Road Department is maintenance of the County's 756 miles of incorporated road. Ninety percent of the Road Department's efforts are oriented toward this activity. The other ten percent is primarily expended on reconstruction, usually road realignment and widening. The County is presently well equipped to do its own maintenance work. Using a grant from the Oregon Traffic Safety Commission, Coos County retained the consulting firm Transportation Planning and Management, Inc. (TPM) to prepare a Ptraffic Safety and Roadway Management Plan. The report's stated purpose is to:

"(Summarize) the results of our roadway and traffic investigations. It also makes recommendations for managing traffic in an efficient and safe manner and for maintaining and improving roadways. In addition, the report describes a priority system and scheduling program as well as indicates sources of funds. It also gives roadway planning and designing guides and methods for keeping track of traffic control, traffic safety, and conditions of...roadways."

The TPM report provides a means for classifying roads by level of use, either "minor arterial", "collector", or "local". Additionally, the report proposes a simple method for classifying all roads by one 5-digit number that can be used universally by all road and highway agencies. For examples, the Coquille-Fairview road is assigned the number 73-009. The first two digits show that the road begins in Township 27S, Range 13W. (Using the second digit of the township and the range); the last three digits are the road's existing number.

The roads and assigned numbers are as follows:

a. <u>Minor Arterial Roads</u>. Minor arterial roads interconnect and augment the principal arterial road system. Proposed minor

arterial roads in Coos County are listed below. The tabulation includes the new County Road Identification Number.

Road Name	Road Number
Beaver Hill-Seven Devils	73-208
Coos City-Sumner	63-057
Coquille-Fairview	73-009
East Bay Drive	53-045
Englewood-Shingle House Slough	63-052
Fairview-Middle Creek-Lone Pine Junction	72-060
Lakeside-Eel Lake	32-199
Lakeside-Hwy. 101	33-035
Lone Pine Junction-Dora	81-063
McLain-Libby Drive	63-184
Myrtle Point-Cooper Bridge	92-012
Myrtle Point-Lampa	92-004A
	93-004B
	83-004C
Myrtle Point-Sitkum	92-001A
	92-001B
	81-001C
North Bank Road	73-005
(between Hwy 42 & road number 73-20	18)
Powers South	12-090
Seven Devils Road	64-033B
Sitkum-County Line	80-064
Sumner-Fairview	62-059

b. <u>Collector Roads</u>. Collector roads carry internal traffic within areas having a single land use. The collector roads join arterial roads and minor traffic generators such as schools and shopping centers. Proposed collector roads in Coos County are listed below with new Road Identification Numbers.

Road Name	Road Number	
Arago-Arago Junction	83-146	
Arago Crossroads	83-078	
Arago-Fishtrap Landing	83-077	
Beach Loop	95-029	
Bear Creek-Parkersburg-Prosper	84-091	
Big Creek (Zone 4)	91-084	
Bullards-Prosper Junction	84-092	
Catching Creek	92-019	
Catching Slough	52-019	
Coos Head Loop	64-127	
Coos River	52-006	
Coquille-Fairview	73-009	

Crown Point	64-043
Fat Elk	83-010A
	83-010B
Fishtrap Landing	83-022
Greenacres Road	73-118A
Jordan Cove	43-218
Kentuck Way	53-027
Lee-McKinley	82-013
Myrtle Creek Road	91-032
Myrtle Point-Broadbent (West Side)	92-020
North Bank Road	73-005A (from
	Road #73-208 to end)
	83-005B
North Bay Drive	43-007A
North Lake Road	32-186
Norway-Lee-Fairview Junction	82-002A
	82-002B
Olive Barber Road	53-144
Rosay Road	84-096
Ross Slough	52-018
Seven Devils Road	84-033A
	74-033W
Shelley Road	82-147
Shutters Landing	43-025
South Coos River	52-026
Wildwood Drive	43-007B

c. <u>Local Roads</u>. Local or land access roads include all the roads that are not on the arterial-collector system.

As part of the rural addressing system for standardizing addresses in the county the report also proposes that all roads be named "using the commonly accepted name..., or when a duplication occurs the name used shall be that name accepted and petitioned for by the residents and approved by the Board of Commissioners.²⁵

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²⁵ TPM, pg. III-6

U.S. Highway 101

Mile		1978
Post	Location Description	A.D.T.
	r	All Vehicles
222.72	0.01 mile north of Lakeside Road	6,500
222.74	0.01 mile south of Lakeside Road	6,700
228.93	0.10 mile north of road to Shutters Landing	8,000
229.26	0.01 mile north of county road at Hauser	8,100
229.28	0.01 mile south of county road at Hauser	9,300
233.09	Haynes Inlet Bridge	10,100
234.03	North city limits of North Bend	15,200
235.03	0.01 mile north of Florida Avenue	16,000
235.05	0.01 mile south of Florida Avenue	16,200
235.32	0.01 mile north of California Avenue	15,200
235.40	0.01 mile north of Cape Arago Highway	16,100
235.42	0.01 mile south of Cape Arago Highway	17,700
235.56	0.01 mile north of Sheridan Avenue	16,700
235.58	0.01 mile south of Sheridan Avenue	19,900
236.77	South city limits of North Bend/North city limits of Coos Bay	22,600
	· · · · · · · · · · · · · · · · · · ·	·
	On Bayshore Drive	
	•	
237.57	0.01 mile north of Hemlock Avenue	24,500
237.59	0.01 mile south of Hemlock Avenue	25,400
	South-Bound, One Way Traffic	
	On Broadway	
237.84	0.01 mile south of Fir Avenue	14,200
238.20	0.01 mile north of Empire-Coos Bay Highway (Westbound)	14,900
238.32	0.01 mile south of Empire-Coos Bay Highway (Eastbound)	14,000
	North-Bound, One Way Traffic	
	On Bayshore Drive	
237.84N	0.01 mile south of Fir Avenue	14,400
238.22N	0.01 mile north of Empire-Coos Bay Highway (Westbound)	14,300
238.33N	0.01 mile south of Empire-Coos Bay Highway (Eastbound)	14,200
	Resume Two Way Traffic	
	On Broadway	
238.52	0.01 mile south of Elrod Avenue	24,500
	ord mile sound of Linda II, onde	= 1,500

238.83	0.01 mile north of Ingersoll Avenue	25,200
238.85	0.01 mile south of Ingersoll Avenue	25,400
239.22	South city limits of Coos Bay	26,700
239.68	0.20 mile south of Coos River Highway	14,800
240.37	0.01 mile south of Lorain Avenue	14,000
241.90	0.10 mile north of old Shingle House Slough Road	12,900
243.49	0.10 mile north of Sumner Road	10,800
244.07	0.20 mile north of Coos Bay-Roseburg Highway (ORE 42)	10,400
244.97	0.70 mile south of Coos Bay-Roseburg Highway (ORE 42)	3,300
253.13	0.10 mile south of Beaver Lookout Road (South Junction)	3,500
257.48	0.10 mile south of Seven Devils Road	3,650
259.65	Coquille River Bridge	4,300
260.04	North city limits of Bandon, 0.96 mile north of Coquille-Bandon Highway (ORE 42S)	4,300
	Equation: M.P. 261.60 = M.P. 273.37	
273.47	0.10 mile west of Coquille-Bandon Highway (ORE 42S)	8,700
273.88	0.01 mile east of Fillmore Avenue	8,900
273.90	0.01 mile west of Fillmore Avenue	9,200
273.95	0.01 mile southwest of 2 nd Street East	7,900
274.31	0.01 mile south of 7 th Street	8,700
274.49	0.01 mile north of 11 th Street	8,400
274.60	South city limits of Bandon	6,300
275.75	Bandon Automatic Recorder Sta. OC-004, 1.15 miles south of Bandon	5,000
277.57	0.01 mile north of Bradley Lake Road	4,800
281.76	0.01 mile north of Lower Fourmile Road	3,900
282.08	0.01 mile south of Upper Fourmile Road	3,600
285.78	Coos-Curry County Line	3,600

Coos Bay-Roseburg Highway ORE 42

Mile Post indicates distance from Oregon Coast Highway, US 101, near Davis Slough

0.70	.0.70 mile south of Oregon Coast Highway (US 101)	7,400
4.14	Southern Pacific Overcrossing at Delmar	6,600
9.60	0.01 mile north of Cedar Point Road	7,100
10.16	West city limits of Coquille	9,200
10.38	0.01 mile east of Knott Street	11,600
10.97	0.01 mile west of Fairview Road	13,900
10.99	0.01 mile east of Fairview Road	13,900
11.15	0.01 mile south of 10 th Street	14,000
11.53	0.01 mile north of 3 rd Street	13,700
11.61	0.01 mile south of 3 rd Street	9,800
	Southbound – One Way Traffic	

11.62	0.01 mile north of Coquille-Bandon Highway (ORE 42S)	6,500
11.84	0.01 mile east of Coquille-Bandon Highway (OEW 42S)	6,200
11.98	0.01 mile west of Adams Street on Man Street	6,300
	Northbound – One Way Traffic	
11.61 N	0.01 mile east of Central Blvd. On 3 rd Street	6,400
11.81 N	0.01 mile north of Main Street on Adams Street	6,700
	Resume Two Way Traffic	
12.00	0.01 mile south of Main Street	9,600
13.21	0.01 mile north of Rink Creek Road	6,800
13.23	0.01 mile south of Rink Creek Road	6,400
15.21	0.01 mile south of Glenn Aiken Road	5,200
17,57	0.25 mile north of Norway Post Office	5,500
18.07	0.25 mile south of Norway Post Office	6,100
19.84	0.01 mile north of old highway to Myrtle Point	5,500
20.01	North city limits of Myrtle Point	5,000
20.57	0.01 mile north of Spruce Street	6,800
20.59	0.01 mile south of Spruce Street	8,000
20.64	0.01 mile south of Maple Street	7,500
20.81	0.01 mile south of Harris Street	6,000
21.12	0.01 mile south of Maryland Avenue	5,900
21.84	South city limits of Myrtle Point	4,000
23.07	0.40 mile west of Powers Highway	3,700
23.87	0.40 mile east of Powers Highway	2,400
26.72	Endicott Creek Bridge	2,300
29.14	0.01 mile west of King Creek Road	2,400
30.49	0.01 mile west of Myrtle Creek Road	2,100
39.00	0.10 mile west of Remote Post Office	1,750
39.20	0.10 mile east of Remote Post Office	1,900
44.95	Coos-Douglas County Line	1,750

Cape Arago Highway No. 240

Mile Post indicates distance from Oregon Coast Highway, US 101, in North Bend

	On Virginia Avenue	
0.01	0.01 mile west of Oregon Coast Highway (US 101)	10,700
0.09	0.01 mile east of McPherson Avenue	12,900
0.16	0.01 mile west of Meade Avenue	19,400
0.43	Pony Slough Bridge	18,500
0.77	0.01 mile east of Broadway	15,300
0.79	0.01 mile south of Virginia Avenue on Broadway	11,900
1.31	0.01 mile north of 16 th Street	15,000

1.33	0.01 mile south of 16 th Street	16,000
2.24	West city limits of North Bend, East city limits of Coos Bay	14,300
3.16	0.01 mile east of Empire-Coos Bay Highway	12,900
3.18	0.01 mile west of Empire-Coos Bay Highway	16,900
3.45	0.01 mile west of Main Street	14,800
3.71	0.01 mile east of Empire Blvd	10,700
3.73	0.01 mile south of Newmark Avenue	8,800
3.92	0.01 mile south of Noble Avenue	9,000
4.12	0.01 mile south of Pacific Avenue	9,000
4.54	South city limits of Coos Bay	8,900
5.13	0.01 mile south of Spaw Blvd	8,400
6.09	0.01 mile south of Tarheel Road	7,800
6.89	0.10 mile north of Barview Pigeon Pt. Road	6,100
8.13	0.01 mile west of Joe Ney Road	4,800
8.52	0.01 mile east of Broadway at Charleston	5,500
8.89	0.01 mile west of Seven Devils Road	1,500
11.53	0.01 mile north of entrance to Sunset Bay State Park	900
12.64	0.01 mile north of entrance to Shore Acres State Park	400
14.07	0.01 mile north of entrance to Cape Arago State Park	360

Coos River Highway No. 241

Mile Post indicates distance from Oregon Coast Highway, US 101

0.01	0.01 miles east of Oregon Coast Highway (US 101)	12,300
0.51	Isthmus Slough Bridge	10,800
0.72	South city limits of Eastside	8,500
1.11	0.01 mile south of "D" Street	7,000
1.12	0.01 mile east of 6 th Avenue	5,700
1.33	0.01 mile west of 10 th Avenue	5,400
1.77	0.02 mile west of 16 th Avenue	4.500
2.23	East city limits of Eastside, on Catching Slough Bridge	4,200
2.34	0.01 mile east of Catching Slough Road	2,950
3.41	0.01 mile west of Old Coos RiverRoad	3,100
3.73	On Coos River Bridge	2,000
3.90	0.01 mile east of Graveyard Point Road	1,600
7.33	Mart Davis Creek Bridge	1,150
14.07	Millicoma River Bridge	940
14.18	0.02 mile east of West Fork Millicoma Road at Allegany	1,150
15.10	0.20 mile east of Marlow Creek	250
19.15	End of highway, 0.60 mile east of Millicoma Wayside Park	120

Empire-Coos Bay Highway No. 243

Mile Post indicates distance from Cape Arago Highway in Coos Bay

0.01	0.01 mile east of Cape Arago Highway	2,400
	On Ocean Boulevard	
0.50	0.07 mile northwest of LaClair Street	9,100
1.31	0.01 mile west of 28 th Street	9,300
1.76	0.09 mile west of Woodland Drive	9,900
2.20	0.01 mile west of Butler Road	13,800
2.22	0.01 mile east of Butler Road	13,700
	On Central Avenue	
2.82	0.01 mile east of 14 th Street	13,500
3.03	0.01 mile west of 10 th Street	13,400
3.15	0.01 mile west of 8 th Street	12,800
	Eastbound – One Way Traffic	
	On Anderson Avenue	
3.39	0.01 mile west of 4 th Street	7,700
3.41	0.01 mile east of 4 th Street	7,100
3.54	0.01 mile west of Oregon Coast Highway (US 101 Southbound)	6,700
3.56	0.01 mile west of Oregon Coast Highway (US 101 Northbound)	3,050
	Westbound – One Way Traffic	
	On Commercial Avenue	
3.39W	0.01 mile west of 4 th Street	6,200
3.41W	0.01 mile east of 4 th Street	6,000
3.53W	0.01 mile west of Oregon Coast Highway (US 101 Southbound)	6,000
3.57W	0.01 mile west of Oregon Coast Highway (US 101 Northbound)	4,100

Coquille-Bandon Highway No. 244

Mile Post indicates distance from Oregon Coast Highway, US 101, in Bandon

0.17	East city limits of Bandon, 0.17 miles east of Oregon Coast Highway	2,830
	(US 101)	
1.58	0.01 mile west of Prosper-Morrison Road	2,250
1.60	0.01 mile east of Prosper-Morrison Road	2,050
3.11	0.01 mile east of Parkersburg-Bear Creek Road	1,550
7.28	0.02 mile east of Lampa-Myrtle Point Road	1,350
10.85	0.01 mile south of Riverton Road	1,400
11.13	0.01 mile north of Main Street at Riverton	1,350
11.22	0.01 mile north of Riverton Ferry Road	1,350
14.68	0.01 mile west of Fat Elk Road	1,600
14.70	0.01 mile east of Fat Elk Road	1,650
16.95	0.10 mile west of Coquille-Arago Road	2,150
17.08	South city limits of Coquille on Coquille River Bridge	2,450
17.27	0.01 mile west of Coos Bay-Roseburg Highway (Ore 42)	3,200
	• • • • • • • • • • • • • • • • • • • •	

Powers Highway No. 242

Mile Post indicates distance from Coos Bay-Roseburg Highway, Ore 42

0.30	0.30 mile south of Coos Bay-Roseburg Highway (Ore 42)	1,600
1.19	Warner Creek Bridge	1,550
2.43	0.01 mile north of road to Broadbent	1,550
2.45	0.01 mile south of road to Broadbent	1,300
3.54	Robbins Creek Bridge	1,100
5.23	0.01 mile south of road to County Gravel Bar	1,050
9.77	0.01 mile south of Gaylord Road	900
10.77	0.12 mile south of Yellow Creek Road	780
17.13	South Fork Coquille River Bridge	810
17.52	North city limits of Powers	1,100
17.85	0.01 mile south of Alder Street	1,250
18.22	Coquille River Bridge	2,500
18.37	0.01 mile south of Spruce Street	2,100
18.57	0.01 mile west of 2 nd Avenue	1,150
18.71	0.01 mile west of 4 th Avenue	860
18.73	0.01 mile south of Poplar Street on 4 th Avenue	830
18.90	0.11 mile south of Hemlock Street	770

G. Bicycle

<u>Bikeways</u>. One percent of State gasoline tax revenues are set aside for the construction of bicycle routes. According to the Department of Transportation, there are a total of four miles of bicycle trails in the County currently. ODOT lists their locations as between the Cape Arago Highway and Woodland Drive and between Coos Bay and the Empire Highway (presently along Ocean Boulevard) and describes them as Class II – separated from the highway by a curb. Lack of available funds and inflated costs could severely limit further development of bikeways.

H. Pedestrian

Inadequate separation between pedestrians and motor driven vehicles is one of the greatest obstacles to increased pedestrian traffic volumes. Most pedestrian safety problems involve cities, because the distance between cities in Coos County prohibits serious pedestrian travel. The most common safety problem for pedestrians within cities involves the lack of sidewalks, which forces pedestrians to compete (ineffectively) with automobiles for street right-of-way.

This problem has two sources:

- 1. Some older areas have gradually and slowly filled-in, changing from a rural to an urban perspective without acquiring the typical urban amenity of sidewalks.
- 2. Some cities, notably North Bend and Coos Bay, have consistently failed to require installation of sidewalks in all new developments.

III. Needs

A. Regional Needs

At town hall meetings during the early development of the Background Document of the Comprehensive Plan, local citizens developed a list of transportation needs and ranked them through informal voting. The highest priority needs determined through this process, in order of total points cast, were:

- 1. Refrain from using prime farmland for road construction.
- 2. Improve and complete Highway 42.
- 3. Maintain or expand air services.
- 4. Improve Highway 101 through Coos Bay/North Bend.
- 5. Improve Highway 101/Eastside Junction.
- 6. Encourage better maintenance of port channels.
- 7. Improve and expand Senior Citizens transportation systems.
- 8. Construct more passing lanes on Highway 101.
- 9. Discourage development of forest roads.
- 10. Improve Highway 38.

An earlier study done by the Coos-Curry Council of Governments (CCCG) in 1973, <u>Transportation Planning and Needs in Administrative District 7</u>, explored problems and possible solutions in detail. The report's summary of needs is still accurate seven years later. The report ranks those needs as follows:

- 1. Reduction in the district's general isolation from the rest of Oregon and the nation. The accent here would be on improving the safe and efficient movement of people and goods between the region and other areas. Consequently, east-west transportation proposals, commercial air traffic potentials, and ocean commerce would receive the highest priorities.
- 2. Improvement of intra-regional transportation. The accent here would be on improvement of the district's arterials to provide safe and efficient movement, development of the region's airstrips, air taxi services, transit systems, and similar developments.
- 3. Improvement of local circulation patterns to remove local areas of congestion, local traffic hazards, etc.

B. State Needs

Most State transportation needs are best described by referring to the Oregon Department of Transportation's (ODOT) Proposed Six-Year Highway Improvement Program: Fiscal Years 1980 through 1985 (February 1980). Current projects within Coos County prescribed within that report include eight projects on U.S. Highway 101 (generally, paving and left turn lanes, but also including replacement of the Coalbank Slough Bridge); two projects on Ore Highway 42 (installation of Coquille traffic signal, and paving); three projects on Ore Highway 42S (replacement of Bear Creek and Coquille River Bridges); two projects on Cape Arago State Highway; and three projects on the Powers Highway (\$3.5 million for grading and paving).

Also of vital importance to meeting regional and local needs are improvement projects on Ore Highways 38 & 42 in Douglas County. These improvements will help increase the efficiency and economic attractiveness of the east-west highways, which are vital to Coos County's economic health.

Two major improvements that have repeatedly been identified as local and regional needs, but which are not included within the six-year plan and may be added only by a decision of the State Transportation Commission, are:

- 1. Replacement of the Ore 240 South Slough drawbridge at Charleston;
- 2. Construction of the Ore 42 Coquille bypass.

Air transportation needs include the following:

- 1. Construction of new larger runway at the Bandon State Airport;
- 2. Selection and construction of a new airport as identified in the National Alirport System Plan (NASP) to serve the Coquille/Myrtle Point area as a replacement for the existing landing strip at Norway;
- 3. Protection of the runway approaches to the Bandon State Airport and Powers State Airport.

The Port of Coquille River Commission has tentatively contracted with the Southern Oregon Regional Services Institute (SORSI) to undertake a three-phase project that would:

- 1. Complete a site selection study for a new airport to serve the Coquille-Myrtle Point area:
- 2. Study the feasibility of an industrial park adjacent to the new airport;
- 3. Study the possibility of public service extension to the site.

The airport would be eligible for \$825,000 in land purchase and improvements funding through grants from the Airport Development Aide Program. Should the project prove feasible, the County would need to ensure that approach zones could be protected and that State Goal requirements could be met prior to actual project construction.

C. Local Needs

Needs identified in local plans are typically in two categories: those that are "strictly" local concerns and those that have regional and statewide significance.

Local needs in most Coos County cities include:

- 1. Need for more sidewalks to ensure protection of pedestrians from automobiles;
- 2. Need for paths reserved for bicycles;
- 3. Need for paving of roads in areas that have experienced rapid increases in "fill-in" development;
- 4. Need for repair and widening of many local streets.

Identified local needs that mesh precisely with regional and state needs include:

- 1. Need for relieving heavy traffic congestion on commercial streets designated as State Highways;
- 2. The need for general public mass transit, especially in the Bay Area (North Bend, Coos Bay, Eastside and unincorporated urbanizing environments).

D. Need for Coordination of Plans

Ensuring that local, regional and state needs are incorporated into all plans is an important concern. Coos County has long experienced the results of lack of coordination of differing needs and their resulting non-fulfillment. For example:

- 1. Improvements to Ore 42, the only East-West connector to Interstate 5 in the county, have occurred slowly and sporadically. Recent improvements near Remote and other areas have been very beneficial, but other long-needed improvements, such as the Coquille bypass, have yet to be included within state plans.
- 2. A recent court decision forbade the estuarine fill necessary for extending North Bend airport runway 4-22 to a length sufficient to permit commercial jet traffic. Coos County is now less economically competitive with other areas of the state because of the lack of suitable airfreight capability and the loss of the one major airline serving the county.
- 3. The differing needs of building contractors (for a suitable dump and landfill site) and citizens of a residential area (for safe and quiet streets) contrasted sharply in

Englewood in 1978, partly as a result of a lack of local coordination. The resulting conflicts between residents and landfill users, although eventually resolved by the County Board of Commissioners, could have been spared by sufficient coordination of city and county needs.

E. Transportation of the Disadvantaged

The following section is quoted directly from the proposed City of Coos Bay Transportation Element. The report presents a good overview of the subject and applies, as the report itself notes, to Coos County as well as the Coos Bay Area.

Since the Coos Bay element was written, the Coos-Curry Council of Governments (CCCOG) has completed <u>The Coos-Curry Transportation Study:</u> <u>Volume II; Survey of Trip Characteristics and Transportation Needs.</u> That study, although encompassing all age groups, was designed primarily to illustrate the needs of the transportation disadvantaged and was conducted jointly with a survey of senior citizens' needs. The CCCOG study is not quoted herein but is available as a valuable reference.

Transportation of the Disadvantaged²⁶

The transportation of the disadvantaged is a problem most recently addressed in a study completed in February 1978 by the Coos-Curry Council of Governments (CCOG). The report of findings and recommendations is entitled, <u>The Coos-Curry Senior Citizen and Handicapped Transportation Plan</u>, Vol. I. The transportation of the disadvantaged is recognized as an areal problem in scope and not one exclusive to the City of Coos Bay alone. Therefore, the facts for Coos County within the above study provided the background for the preparation of this inventory.

Attempts to define the transportationally disadvantaged have been inconsistent in data depending upon the statistics used and the size of each study. Essentially, the term applies to members of the population who are less mobile than the general population. This immobility may be due to their physical, economic or legal inaccessibility to their own vehicles, to physical or financial barriers to other modes of transportation, or to the lack of alternatives to privately-owned cars.

Generally, those groups identified as transportationally disadvantaged are:

- 1. The elderly over 60 years of age.
- 2. The poor with incomes below established poverty levels.
- 3. The handicapped with physical or developmental disabilities.
- 4. The young aged 6-18 years.

These four groups are studied in the CCCOG report for Coos and Curry Counties.²⁷ The report describes each group and its respective needs: the current

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²⁶ City of Coos Bay Planning Department

²⁷ The State of Oregon, Mass Transit Division differs with these definitions. They define the elderly as persons over 65, the young between ages 12 and 15, and they include in their statistics legally suspended drivers and those who should not drive – alcoholics and drug addicts. (DOT, 1977:5)

transportation resources, and proposes alternative solutions. (Table 12-11) Information regarding current transportation resources, particularly the Bay Area Senior Activity Center buses, has been added to this inventory. An important point of fact resulting from the CCCOG study is that a majority of the disadvantaged reside in the bay area.²⁸

Table #12-11 Description of the Disadvantaged Population in Coos County And their Transportation Needs, 1970

Disadvantaged	Coos County Population Percent	Transportation Needs	Transportation Impediments
Elderly	13.8%	 Medical Needs Shopping Government Offices Church Senior Activities Hot meals 	No licenseFixed incomesPhysical restraints
Handicapped	9.0%	 Government Social service agencies Medical needs Shopping Some social activities 	Physical restraintsNo or low income
Poverty Level	10.0%	 Medical needs Shopping Governmental offices School 	Low Income
Youth	27.0%	RecreationSocial activitiesPart-time employment	Dependence on others Lack of income

29

Table 12-11 Description of the Disadvantaged Population in Coos County And their Transportation Needs, 1970

	Coos County	Bay Area		
Disadvantaged	Population	Population ³⁰	Transportation Needs	Transportation

²⁸ DOT, 1977:5.
²⁹ Coos-Curry Council of Governments, 1978 (Amended).

	Percent	Percent		Impediments
Elderly	13.8%	40%	 Medical Needs Shopping Government offices Church Senior activities Hot meals 	No licenseFixed incomesPhysical restraints
Handicapped	9.0%	Undetermined	 Government Social service agencies Medical needs Shopping Some social activities 	 Physical restraints No or low income
Poverty level	10.0%	40%	Medical needsShoppingGovernmental officesSchool	Low income
Youth	27.0%	53%	RecreationSocial activitiesPart-time employment	Dependence on othersLack of income

31

The <u>elderly</u>, those over 60 years of age, are disadvantaged because they often have no driver license. Also, fixed incomes prevent them from operating the vehicles they own or force them to make fewer trips. The CCCOG study reveals that on the basis of the 1970 census, 40% of the elderly in Coos and Curry Counties reside in the bay area (thenceforth defined as Coos Bay, North Bend, Eastside, Bunker Hill, Charleston, and North Bayside).³²

The <u>handicapped</u> are those physically handicapped or developmentally disabled such that operation of a vehicle is impossible physically or financially due to their inability to gain employment. The handicapped or disabled under age 65 are estimated to be 9% of the bi-county population, with 80% of this group living in Coos County. ³³ Table #12-12 shows the five service organizations working with the handicapped in Coos Bay and North Bend and the number of clients needing transportation. ³⁴

Individuals <u>below poverty level</u> usually cannot afford private transportation. Yet, in many respects they have a greater transportational need and, therefore, spend a greater portion of their income on transportation than other members of

³⁰ Bay Area is defined as Coos Bay, North Bend, Eastside, Bunker Hill, Charleston, and North Bayside.

³¹ Coos-Curry Council of Governments, 1978.

³² Coos-Curry Council of Governments, 1978:57.

³³ Coos-Curry Council of Governments, 1978:61.

³⁴ Coos-Curry Council of Governments, 1978:63.

the population. "Indeed, it has been widely demonstrated that the need for transportation is highly correlated to the size one's income. Individuals who are below poverty, like those who are on fixed incomes, generally spend a higher percentage of their income on transportation than the rest of the population." ³⁵

Based upon 1970 data on poverty thresholds, 40% of the below poverty level population resides in the bay area, "...as was true with the elderly, the largest below poverty populations are located in or near the major population cents." 36

The <u>young</u> are included in the disadvantaged category because they are dependent upon others for their mobility. Studies have shown that a fairly constant portion of the population are young, constituting 53% of the Coos/Curry Counties population in the bay area alone.

Table #12-12

Distribution of Organizations Working with the Handicapped
In Coos County, 1978

Organization ^a	Number of Handicapped and/or Developmentally Disabled in Need of Transportation	Location
Vocational Rehabilitation Transitional House	28 10	Coos Bay North Bend
Star of Hope	16-24	North Bend
Goodwill Industries	25	Coos Bay
Coos County Mental Health	110	North Bend

^aFigures for the Vocational Rehabilitation Division and the Mental Health Departments do not represent the total number served by the agency, but only those in need of transportation as determined by agency directors and department heads. Some of the figures may be partially duplicated since some handicapped and/or developmentally disabled individuals may receive counseling from more than one social agency.

During the day clients are working at the Star of Hope or at the Goodwill. The need for transportation is to and from these sites and for recreation in the evening.

The Star of Hope Activity Center will be adding an additional service unit within 6 months, bringing the total number of clients served to 24.³⁵

In the bay area, inter and intra-city transportation services are offered by Greyhound Lines, two privately-owned taxi cab companies, and the Senior

³⁶ Coos-Curry Council of Governments, 1978:67.

³⁵ Coos-Curry Council of Governments, 1978:65.

³⁵ Coos-Curry Council of Governments, 1978:63.

Activity Center. (Table#12-13) Greyhound and the commercial tax services are discussed in greater detail in other segments of this Transportation element as part of service to the general public. However, regarding specific service to the disadvantaged, the <u>taxi companies</u> offer a 30% discount to senior citizens. As far as commercial bus service is concerned, the CCCOG study has discovered that <u>Greyhound</u> travel is costly to the disadvantaged, the scheduling may require an overnight stay or a shorter visit, and the buses are inaccessible to the physically handicapped or the homebound individual.

Table #12-13

Current Transportation Services in Coos County Available to the Disadvantaged, 1978

Agency	Service	Patrons/ Clients	Local Service Area	Number of Vehicles/ Day	Number of Passenger Seats	Number of Days of Operation	Hour of Operation
				-			
Greyhound	Inter-city bus	General Public	Cities on U.S. Highway 101 and Ore 42S	See Table on Page	33	Daily See Table on Page	24 hours See Table on Page
Commercial	Intra-city	General public (discount to senior citizens)	Cities of Coos Bay/ North Bend and 3-mile radius around them	10 sedans 1 limo	5	7 days/ week in Coos Bay & 7 in North Bend	24 hours a day in Coos Bay and North Bend
Senior Activity Center Bus Service	Intra-city fixed route Intra-city	Elderly and handi- capped	Bay area Bay area	1		5	9:00–5:00 10:00-2:00
	Hot meals Inter-city	elderly Elderly	North Bend to Bandon North Bend	1	14 8	3 2	
			to Lakeside				

The <u>Senior Activity Center</u> is a non-profit service organization supported primarily by United Way funds and other donations. In addition to community service provided by the organization, the Center operated a county-wide transit system. The center furnishes four, van-type buses seven days per week on scheduled runs and also on an on-call basis. It offers transportation to the elderly, delivers hot meals under the local nutrition program, and contracts to transport clients of various state agencies and non-profit organizations. Moreover, for the past three years, the Center has been designated by the Public

Utility Commission (PUC) as a recognized transit carrier and is authorized to carry any individual regardless of age or physical/economic handicap.

The program director estimates the cost of service in 1978 was .37 per mile. The Center absorbs this cost by United Way, other funding sources and membership dues from senior citizen participants (\$2.00 per year). In 1978, the Center completed 24,000 round trips.

Many organizations contract for transportation of their clients. These agencies pledge a .20 per mile subsidy; the Nutrition Program (contracted through the CCCOG) reimburses the Center at .15 per mile. The center absorbs the remainder of the cost. The agencies and number of clients using this service in 1978 are listed in Table #12-14:

Table #12-14
Organizations Utilizing the Senior Activity Center Bus, 1978

Organization	Number of Participants		
Star of Hope	22		
Seaman's Center	30+		
Coos Transitional House	8		
Good Will Industries	3		
Adult and Family Services	3		
Coos County Mental Health	4		
Hot Meals Program (CCCOG)	17,000 meals (delivered to center and homebound		
-	persons		

37

Emergency and special trips are referred by other agencies (RSVP, Child care centers, Community Action Programs, Vocational Rehabilitation, hospitals, etc.) reimbursed on an individual, on-use basis.

Trips by other residents not classified as disadvantaged are made at a fee of .35 per trip.

Some buses run on a predetermined schedule; others provide hot meal delivery and door to door service. One bus makes daily trips to Bandon and Coquille. The 1978 breakdown for each bus is shown in Table #12-15:

³⁷ Kaeser, 1979

Table #12-15

Number of Trips Made by Buses of the Senior Activity Center in 1978

Bus	Trips to Transport the Elderly	Trips to Transport the Handicapped	Others	Total Miles Driven
1	3,208	621		6,371
2	4,326	4,140	2,742	37,456
3	1,545	1,377		6,031
4	4,200	1,400	400	26,310
Total	13,279	7,538	3,142	76,168

IV. Potentials & Constraints

A. Potentials & Constraints for Each Transportation Mode

1. Mass Transit

At the present time, public mass transit in Coos County consists of (a) a fleet of vans in the Coos Bay area operated by the Senior Activity Center primarily for senior citizens and other transportation disadvantaged, and (b) a small taxi system in Coquille partially funded by the Older Americans Funding Act and operated by the City of Coquille at a deficit for approximately the last four years.

Development of an intra-city public transit is essentially a decision of each city, with possible coordination and assistance by CCCOG and the State Department of Transportation. Since Coos County's population is largely clustered in cities scattered along U.S. 101 and Ore 42, development of an inter-city public mass transit system (within the County) is an attractive concept. Development of such a system by private enterprise is highly unlikely, however, especially when considered in light of the recent closure of a short-lined private mass transit operation in Coos Bay.

The County itself could undertake a study to determine the feasibility of alternative levels of mass transit provision. (A proposal to place the concept of a mass transit district before the voters is currently being considered by the County.) Alternatives could include:

- a. A comparison of "full-time" transit versus a system plan to be temporarily enacted in the event of a fuel crisis or other emergency.
- b. A comparison of "full-stop" service throughout the County versus an "express" system of limited stops. Passengers could board the vehicles at selected parking lot locations and be transported to a limited number of stops such as large employment centers and shopping areas;

c. A comparison of "general" ridership versus a system of "limited" ridership geared, for example, to transporting commuters to work (and others willing to ride at those specific times).

2. <u>Air transportation</u>

The Oregon Supreme Court decision to prevent estuarine filling necessary to allow extension of North Bend Municipal Airport's runway 4-22 presents a constraint to improvement of air transportation services in the County. The lack of both a major carrier and standard commercial jet capability will mean increased reliance on commuter airlines. As noted on page 5 of this report, Coos County is currently served by three commuter airlines for a total of 10 flights in and 10 flights out per day.

The City of North Bend is not precluded from re-applying for a runway extension since a legislative change in the fill and removal law now gives greater emphasis to economic need as a justification for permits. The extension likely will prove more costly because the free dredge spoils from the channel deepening project are no longer available for use as fill material. The Bandon airport is scheduled for major extension of the runway and approach zones to permit safer landings by heavier aircraft. Current proposals include:

- a. Paving an additional 500 feet north of the existing runway and expansion of the "clear zone" south of the runway;
- b. Use of the existing runway as a taxi strip with the construction of a new runway parallel and to the east of the existing runway.

Although the airport may be too distant from the Bay Area to serve as a regional airport, such a concept cannot be ruled out completely. Accordingly, it is expected that the state will play a major role in assisting coordination of airport compatibility planning. Ensuring compatibility of surrounding uses to the airport is critical not only to ensure continued efficiency of existing operations but also to provide for the opportunity for further major expansion of the runway (if that) should not eventually prove feasible. For that reason, the Coos County Board of Commissioners stated its commitment to addressing compatibility issues as expressed in the following letter:

BOARD OF COMMISSIONERS COOS COUNTY COURTHOUSE COQUILLE, OREGON 97423

> Woodrow Robison Jack L. Beebe, Sr. R. A. "Bob" Emmett

December 17, 1979

Mr. Robert O. Brown, Chief Airports Branch, Northwest Region Federal Aviation Administration FAA Building, Boeing Field Seattle, WA 98108

SUBJECT: BANDON STATE AIRPORT MASTER PLAN

Dear Mr. Brown:

This letter is provided at the request of Waddell Engineering Corporation in regard to the development of a master plan and environmental assessment of that plan for the Bandon State Airport, located in Bandon, Oregon.

The Board of Commissioners fully recognize that the Bandon State Airport is an important transportation facility in Coos County. In developing the Coos County Comprehensive Plan, which is scheduled for adoption on May 1, 1980, the Board is prepared to consider enacting appropriate restrictions to the use of land adjacent to or in the immediate vicinity of the airport to those land use activities deemed compatible with normal airport operation.

While the airport is located within the jurisdictional boundary of Coos County, the airport property is within the "area of mutual interest" of the City of Bandon. Therefore, Coos County will cooperate with the City of Bandon in determining the appropriate degree of land use restriction that will be necessary to protect the integrity of the airport.

Very truly yours, COOS COUNTY BOARD OF COMMISSIONERS

/s/ Woodrow Robison Woodrow Robison, Chairman

c.c. Steven H. Silverman,
Waddell Engineering Corporation
City of Bandon

Approaches to the Bandon State Airport and Powers State Airport could be protected by limiting the uses and height of structures within the "primary and secondary safety zones" as delineated by the State Aeronautics Division..

However, approaches to the Lakeside State Airport should not require County action because:

- a. There is roughly 3500 to 4000 feet from either end of the runway to the 1980 Lakeside city boundaries;
- b. These incorporated areas are already extensively developed;
- c. Unincorporated areas in the approach zones are undeveloped forestland on the south and under federal ownership (Dunes NRA) to the north.

3. Water Transportation

The potential for increased waterborne transportation in the Coos Bay and Coquille estuaries is dependent on a number of criteria, including the level of funding available for dredging and moorage, and the amount of estuary and shorelands reserved for resource conservation. Perhaps, the most important factor, however, is whether improvements will be forthcoming on Coos County's major highways and its rail lines. Such importants would enable the Port of Coos Bay (primarily) to compete effectively for the markets and resources of the Willamette Valley.

The existing market system is structured around a relatively inflexible system. Exports are shipped by both rail and truck, but the latter is by far the dominant mode. The following documentation was drawn from the proposed City of Coos Bay Transportation Element:

"Trucking Service. Truck transportation of commodities into the Coos Bay area is a vital economic support. Materials carried by trucking operations help sustain the high levels of exportation through the Port of Coos Bay. It is known that Coos Bay is one of the largest ports exporting lumber products today. A total of approximately 5 million tons were shipped in 1976, and increase of more than 3.5 million tons over the previous decade. The increase in flow is due in large part to products from the hinterland hauled in by trucks. A truck survey, conducted by the Port of Coos Bay and the Oregon Department of Transportation in 1978, concurs with this assumption. Much of this increase can only be sustained by a flow of commodities from the interior and the flow is primarily over the state highway system." The survey sought to identify the interior origins of the commodities handled by the Port and the impact on the overland highway system.

"The survey was conducted at nine docking facility sites representing a cross-section of cargo types handled by the Port, i.e., logs, lumber, plywood, wood chips, and petroleum. Although the interviews took place in January and February, a period of, perhaps, lower volume, some strong conclusions can be made concerning the regional and local

³⁸ Port, 1977:4.

³⁹ Oregon DOT, 1978:1.

transportation networks. Specific data can be sifted from this survey to indicate impacts to existing highways and arterials. These impacts are valuable considerations when assessing the carrying capacity and efficiency of the transportation system.

"This information is summarized below.

- Approximately 450 to 700 trucks make daily trips into the Coos Bay area 1. carrying wood products. (Figures vary depending upon the statistical source. Interviews from the Port survey indicate 450 daily trips; manual counts at the junctions of U.S. 101/Ore 42 and U.S. 101/Ore 38 suggest 690 daily trips; tonnage totals furnished by the Port gathered in 1977 denote 570 daily trips.)⁴⁰
- 2. The majority of the docking facilities are clustered along a 3-4 mile strip of U.S. 101 (Figure #12-2) within the cities of Coos Bay and North Bend. Based on survey data, these docks attract 60-70% of the direct daily truck traffic. Also, this area accommodates some of the remaining 30% transient truck traffic destined to the loading facilities north and south of the cities' limits (Table #12-
- The typical, long-haul truck is a 5-axle, diesel truck with semi-trailer. 3.
- 4. Out hauls:
 - In 90.8% of the cases surveyed, there were no return hauls from the a. Coos Bay area.
 - The remaining 9.2% of return hauls constituted lumber-related products b. (lumber, shavings, and veneer).
 - Out-hauls originate predominately in Bandon, Coquille, and Lakeside c. locally, using highways U.S. 101 and Ore 42 predominantly.
 - Out-hauls are generally destined to the Roseburg/Dillard area, using d. U.S. 101S and Ore 42.
 - Routes out of Coos Bay, dominated by Ore 42 and U.S. 101S are ranked e. in order of use below (Table #12-1):

Table #12-1 Highways Used to Travel out of Coos Bay, 1978

Highway	Number of Trucks	Percentage of Use
Ore 42	1,348	55.0%
U.S. 101S	390	15.9%
Ore. 38	297	12.1%
U.S. 101N	245	10.1%
Other	169	6.9%

f. Hauling of the imported petroleum products out of the area was overwhelmingly on Ore. 42.

5. In-hauls.

Routes taken into the Coos Bay area were also dominated by Ore. 42 followed by U.S. 101S and Ore 38. They are ranked by intensity of use

⁴⁰ Port, 1978:4-5.

below (Table 12-2). More than half of the total used Ore 42, U.S. 101S and Ore 38 each roughly consumed one-sixth of the traffic.

b. In-hauls were all carrying wood products.

Table #12-2
Highways Used to Travel into Coos Bay, 1978

Highway	Number of Trucks	Percentage of Use
Ore 42	1,378	56.3%
U.S. 101S	371	15.1%
Ore 38	322	13.1%
U.S. 101N	191	7.8%
Other	189	7.7%

6. Origins

- a. Roseburg generates more of the shipments than any other single point of origin. This is due to the movement of wood chips, a commodity which dominated most of the Port's exports (3.6 million tons of the total 5 million in 1976).
- b. Coos Bay originates most of the lumber traffic.
- c. Rural Coos County produces the most log shipments.
- 7. Fifty percent of the trucks were home-based in Coos Bay; 13.8% were home-based in other areas of Coos County, totaling 64% of the trucks surveyed.

Table #12-3

Destination of Truck Traffic in the Coos Bay Area, 1978

Facility Destination	Number of Trucks	Percentage of Use
Central Docks	92	4.0%
Coos Bay Docks	85	3.0%
Fibrex	474	19.0%
Isthmus	228	8.5%
Ocean Terminal	425	17.0%
Roseburg Lumber	589	24.0%
U.S. Plywood	390	16.0%
Weyerhaeuser	215	8.5%

[&]quot;In conclusion, this study of trucking relates very strongly to regional transportation needs. It highlights the necessity of safe, efficient east-west corridors. It also

underscores the problem of congestion on U.S. 101 through the city limits that plagues local and transient users."⁴¹

4. Pipeline

The potential for pipelines in Coos County, other than for water and sewer, is quite remote. According to the Port of Coos Bay:

- a. A water-based wood chip pipeline was earlier considered and dismissed because of problems with a likely high-turpentine level of the water.
- b. Essentially, it is cheaper to have a one-way system with a water treatment plant at the end than to have a closed "loop" return system. Cheaper still, however (even at current fuel prices), is transportation to Coos Bay by truck. Any project must, of course, depend on continued strong market for wood chips.

The Coos Bay/North Bend Water Board has plans to construct pipelines to transport water from its various proposed reservoir sites to the appropriate points of distribution. Installation of any pipeline depends on whether the particular water storage project receives the necessary approval.

5. Rail

Potential for Coos County's rail service is largely limited to decisions of the sole railroad company (Southern Pacific) and decisions, especially on rate structure, made by the federal government.

The level of service, especially the number of trains leaving Coos County, is largely a matter of market demand. Nevertheless, there are two areas where system improvements are definitely possible:

- a. <u>Marshalling yard.</u> A new freight car marshalling yard, almost certainly in a different location, would:
 - 1) Allow for an expanded area for freight sorting;
 - 2) Provide a safer location (rather than the downtown Coos Bay waterfront) for tank cars carrying hazardous chemicals;
 - 3) Allow utilization of the waterfront for more appropriate uses;
 - 4) Reduce the use of the Coos Bay railroad bridge (if the yard is located north of the bridge).

Existing freight on the North Spit is taken south across the bridge before marshalling in downtown Coos Bay. Development of an alternative site west of U.S. 101 north of the bay would eliminate the problems mentioned with use of the Coos Bay waterfront.

b. Bridge replacement.

 Reuse of Coalbank Slough for navigation will require replacement of the existing railroad bridge across the slough because of the teriorated condition of the drawbridge mechanism.

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⁴¹ City of Coos Bay Planning Department.

2) The existing S.P.R.R. bridge across Coos Bay interferes with ship traffic, not so much because of the daily closures, but rather because of the narrow opening the bridge provides for the ships. Replacement or modification will provide for greater safety of ships with broad beams.

6. <u>Highway Transportation</u>

A discussion of potential improvements and constraints for highways should distinguish between state and federal highways (under state responsibility) and county/local public roads (under county responsibility).

- a. <u>State Highways.</u> A previous section pointed to the economic importance of achieving needed improvements to the North/South system (U.S. Hwy. 101) and East/West system (Ore Highways 42 & 38), as well as the need for improving localized state highways in the Coos Bay/North Bend area especially, such as Cape Arago State Highway. The constraints to such developments are, first, the topography of Coos County (which raises costs of roadway widening), and second, the fact that funding and decisions to improve those highways are generally outside local control. That Coos County still does not have a high-speed multi-lane highway to Interstate 5 demonstrates how a long-expressed regional need will remain unfulfilled unless that need also becomes an identified State need.
- b. <u>County/Public Roads.</u> The TPM, Inc. "Roadway and Traffic Safety Management Plan" devotes considerable effort toward determining improvements to transportation safety, traffic regulation and control and roadways. Although no action on the report has been taken by the County Board of Commissioners, the report offers a number of recommended improvements, and could, perhaps with modification, be adopted as a portion of the Comprehensive Plan.

Recommendations for improved transportation safety are largely oriented toward reducing conflicts between automobiles and pedestrians, and automobiles and bicycles. The TPM, Inc. recommendations are as follows:

- 1) <u>Pedestrians.</u> <u>Recommendations:</u> "One of the most effective Means for reducing the probability of pedestrian accidents is to reduce the number of potential pedestrian-vehicle conflicts. Methods of reducing conflicts that are recommended for Coos County include the following:
 - Sidewalk and pedestrian path provisions
 - Installation of Pavement markings, warning signs, and possibly flashers or pedestrian activated signals at pedestrian cross-walks
 - Judicious installation of cross-walks
 - Channelizing wide street crossings to provide islands to allow pedestrians to cross in stages
 - Installing barriers to limit pedestrian access to roadways
 - Restricting parking near intersections and cross-walks
 - Regulating land development to prohibit developments that would generate hazardous pedestrian movements

- Not locating schools near arterials⁴²
- 2) <u>Bicycles. Recommendations:</u> It is recommended that each school in Coos County offer a Bicycle Safety Program. It is important that bicyclists be educated as <u>drivers</u>. An effective Bicycle Safety Program must educate both bicyclists and motor vehicle drivers, apply engineering practices that reduce conflicts rather than create unexpected conflicts, and assure enforcement of regulations that provide for orderly vehicle flow.

The "Traffic Safety Education" curriculum guide is a useful publication for a bicycle safety curriculum. In addition, a publication of the Beaverton, Oregon School District #48 entitled "Peddling Pedalling" by L. D. Sarles, lists resources available for conducting bicycle programs.

Police officers throughout Coos County should enforce traffic regulations related to the use of bicycles. A bicycle is a vehicle and a bicycle driver is subject to duties and penalties applicable to all drivers of vehicles. Improper adherence to traffic control devices, night driving without lights, and reckless driving are hazardous to the violator and grounds for citation. 43

Other improvements to traffic regulation and control recommended by the TPM study involve signs, signals, pavement markings, school zones and crossings, construction signing, and railroad crossings. Chapter V (as well as the entire report) is available as a detailed reference.

The report considers roadway improvements in three categories:

- a. Intersection improvements
- b. Roadway improvements
- c. Betterment Road construction

Individual roads were ranked by priority by applying a weighting system that considered the following factors:

- a. Traffic volume
- b. Traffic conflicts and delays
- c. Traffic accidents
- d. Roadway conditions
- e. Roadside conditions
- f. Functional classification
- g. Cost per vehicle
- h. Economic impact

The results of these criteria as they apply to intersections and Roadways are listed in the tables that follow. It is important to note that, as stated in the TPM plan:

⁴² TPM, Inc.

⁴³ Ibid.

"Financial limitation, as well as other practical factors, preclude the immediate construction of all improvement projects. The rating system described above provides the means by which assign has been made as an initial part of the Roadway and Traffic Safety Management Plan. Priority assignments should be reevaluated annually to reflect changes in the system, as provided for in Chapter VIII, Evaluation and Continuation Program."

Table VII - 2

INTERSECTION IMPROVEMENT PRIORITY ASSIGNMENT

COOS COUNTY, OREGON

1978

Name of Project									
		Delays		St	sı	cation	<u>~</u>		
	Traffic Volume	Fraffic Conflicts & Delays	Traffic Accidents	Roadway Conditions	Roadside Conditions	Functional Classification	Cost Per Vehicle (\$)	Economic Impact	VT.
	Traffi	Traffi	Traffi	Road	Roads	Funct	Cost	Econd	TOTAL
Dui G 1 44th G D 1				4.4			10	0	
Bill Creek at 11 th Street (Bandon)	2	8	15	14	9	2	10	8	68
*Seven Devils Road at Highway 240 and Walker	4	10	4	13	12	7	9	4	63
*Myrtle Point-Lampa at Highway 42 S.	6	4	0	6	15	7	10	8	56
Overland Road at Highway 42	10	9	1	14	5	5	10	1	55
Willanch Slough at East Bay Drive	2	4	15	4	11	4	10	4	54
Myrtle Point-Lampa at Fishtrap Landing	2	5	0	10	12	5	10	8	52
Isthmus Heights at Olive Barber	4	4	6	14	9	3	10	1	51
Myrtle Point-Lampa at Arago Crossroads	2	6	0	9	15	5	10	4	50
*Olive Barber at Highway 241	10	5	0	2	8	6	10	8	49
*North Bay Drive at Highway 101	10	8	1	4	6	6	10	4	49
Ridge Road at North Bay Drive	2	8	0	18	6	3	8	4	49
Myrtle Point-Lampa at Arago-Arago Jct.	3	5	5	8	8	5	10	4	48
Arago-Fishtrap Landing at Fishtrap Landing	2	6	0	12	12	4	10	1	47
Bear CrParkersburg-Prosper Jct.at Bullards JcProsper Jct.	2	8	0	8	13	4	10	1	46
Coquille-Fairview at Norway-Lee-Fairview Jct.	4	6	0	6	7	4	10	8	45
Shutters Landing at Air Force Radar Station	1	3	15	2	8	3	7	4	43
Ross Slough at Olive Barber	1	5	0	6	13	4	9	4	42
Eastside-Sumner at Isthmus Heights	2	6	0	6	11	2	10	1	38
*Myrtle Creek at Highway 42	5	5	1	2	0	6	10	8	37
Chester Roth at Shutters Landing	2	2	0	5	12	3	10	1	35
North Slough at North Bay Drive	4	3	0	4	6	3	10	4	34
*Greenacres at Highway 42	-	-	-	-	-	-	-	-	-

^{*}This project should be coordinated with the State. 44

⁴⁴ TPM, Inc., op cit.

Table VII – 3 ROADWAY IMPROVEMENT PRIORITY ASSIGNMENT COOS COUNTY, OREGON⁴⁵

			ne	Traffic Conflicts & Delays	ents	Roadway Conditions	Roadside Conditions	Functional Classification	icle	pact	
			Traffic Volume	c Confl	Traffic Accidents	vay Co	ide Co	ional C	Cost Per Vehicle	Economic Impact	T
Name of Project	Road Number	Milepost	Traffi	Traffi	Traffi	Roadv	Roads	Functi	Cost F	Econc	TOTAL
	0.1.0.10							_	•		
Lone Pine JctDora	81-063	1.20 to 2.80	1	4	15	14	10	3	0	0	55
Sitkum-County Line	80-064	0.00 to 10.50	1	1	1	18	11	3	0	8	53
East Bay Drive	53-045	3.40 to 7.20	5	1	2	10	13	3	8	4	48
Myrtle Point-Cooper Bridge	92-012	1.40 to 2.03	4	1	4	6	15	3	4	0	45
Myrtle Point-Broadbent (West side)	93-020	4.49 to 6.90	1	1	12	14	13	2	0	1	44
Myrtle Point-Sitkum	81-001C	13.60 to 15.09	1	1	0	18	13	3	0	8	44
Sumner-Fairview	62-059	1.60 to 6.50	1	1	3	18	13	3	0	4	43
Myrtle Creek	91-032	2.60 to 3.00	1	1	10	7	17	2	0	8	41
Myrtle Point-Lampa	93-004B	0.25 to 0.50	2	1	15	6	9	3	0	4	40
Coquille-Fairview	73-009	4.50 to 4.58	4	1	7	2	9	3	5	8	39
Coos River	52-006	2.10 to 4.67	4	1	0	7	12	2	5	8	39
Arago-Arago Jct.	81-146	0.55 to 0.80	2	5	10	7	12	2	0	1	39 39
Fox Bridge-Gravelford Seven Devils Road	82-024 74-033w	0.00 to 3.70 3.15 to 6.10	1	5	0	10 16	13 10	2	0	8	38
Myrtle Point-Lampa	81-004C	0.00 to 5.45	1	1	3	9	12	3	0	8	37
Coos City-Sumner Road	63-057	1.90 to 3.45	3	1	0	8	12	3	0	8	35
Lee-McKinley Road	82-013	0.00 to 6.52	1	1	0	12	10	2	0	8	34
Seven Devils Road	64-033B	4.85 to 6.30	4	1	1	9	8	3	3	4	33
McLain-Libby Drive	63-184	0.00 to 3.50	4	0	2	8	3	3	9	4	33
North Bank Road	83-005B	0.00 to 11.95	1	4	0	9	12	2	0	4	32
Bear Creek- Parkersburg-Prosper Jct.	84-091	0.65 to 3.30	1	2	0	12	12	2	0	1	30
Coquille-Fairview	73-009	8.30 to 8.50	2	3	0	4	8	3	0	8	30
Norway-Lee-Fairview Jct.	82-002B	2.50 to 3.50	1	1	0	10	9	2	0	4	27
Englewood-Shinglehouse Slough	53-052	0.50 to 1.90	2	2	0	6	9	2	0	1	22
North Bank Road	73-005A	2.55 to 5.30	1	1	0	7	10	2	0	1	22

45 Ibid.

7. <u>Bicycle Transportation</u>

A convenient means for considering future bicycle transportation in Coos County is to distinguish between two important types of bicycle travel: <u>intra</u>-urban and <u>inter</u>-urban.

a. Intra-urban

The existing bicycle paths in the Coos Bay area (along Cape Arago Highway and Ocean Blvd.) are utilized sparingly and have typical conflicts with automobile use at driveways and intersections. The Bay Area's dispersed employment areas and lack of any large concentrations of high density residential are expected to discourage greatly increased use of bicycles for other than pleasure trips.

b. Inter-urban

The following four problems with bicycle travel between the dispersed cities in Coos County are expected to limit such transportation to only the hardiest of travellers:

- (1) The narrow highway corridors that result from Coos County's topography present very restrictive physical limits for expansion of the travel surface width.
- (2) The local climate includes many months of rain and fog that create dangerous and unpleasant bicycling conditions
- (3) Heavy log truck and chip truck traffic with a strong backwash of air and debris (and water, when raining) creates an additional serious hazard.
- (4) The distance between Coos County's cities greatly reduces the potential bicycle user group to those cyclists capable of high speed bicycle travel.

8. <u>Pedestrian</u>

The distance between cities is so great relative to pedestrian travel speeds, that walking (for example, between Coquille and Coos Bay) would be a 6-hour trek. Thus, most pedestrian paths will consist of <u>intra</u>-city sidewalks. Although the quality of pedestrian paths in the Coos Bay/North Bend area in particular is poor (for example, Newmark Street has no sidewalk system along nearly its entire length), the individual cities themselves have the authority and responsibility to decide whether they will provide adequate safety for their pedestrians.

B. General System Considerations

The previous system analyzed potential improvements and expected constraints for each particular transportation mode. It is equally important, however, to consider the interworkings of

the whole transportation system to assure that efficiency is optimized wherever possible. <u>This</u> section considers the whole system by addressing five requirements of the transportation goal.

1. <u>THE PLAN SHALL "MINIMIZE ADVERSE SOCIAL, ECONOMIC, AND ENVIORONMENTAL IMPACTS AND COSTS.</u> (Portion of Goal #12)

Previous sections of this report have partially addressed this requirement. The major areas where the plan can have the greatest impact are as follows:

- a. <u>Airport compatibility planning</u>. Especially for the Bandon airport, land uses surrounding the airport must be properly designated, <u>first</u> to ensure that the currently planned runway and clear zone expansions will not experience interference from incompatible uses such as tall buildings; <u>second</u> to ensure that future long range expansion of the Bandon airport is not prevented by unnecessary permanent development; and <u>third</u>, so that expected airport uses are made explicit so that surrounding property is not planned for uses that would experience adverse impacts from port operations.
- b. <u>Access management</u>. The Oregon Department of Transportation publication "Guidebook for Access Management" includes a chart (see following page: that describes the two major functions of roads and streets as providing <u>mobility</u> and <u>land access</u>. The chart also shows the indirect relationship between the two functions: the more efficiently a highway provides land access, the less efficiently it provides for mobility.

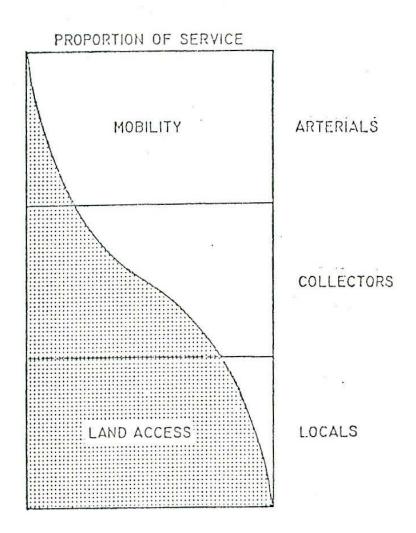
Many existing developed urban areas in Coos County already reduce the mobility of arterials such as U.S. Highway 101. Increasing mobility in those areas will almost certainly require construction of limited-access bypasses, especially around Coos Bay/North Bend, Bandon, and Coquille. Such action depends on state initiative. The County might wish to act to prevent further reduction of arterial mobility, however, by limiting individual driveway accesses along the arterials and by ensuring that most future development is planned along existing or proposed collector roads and frontage roads.

- c. <u>Road standards</u>. The technical aspects of such standards occur within the domain of a land development ordinance. Nevertheless, the plan must encourage standards, especially on roadway width, that consider the topography of the county and the expected use of proposed new roads. Requiring massive roads to serve small developments produces several problems:
 - i. It creates perceived social inequities where developers must create roads (to serve small subdivisions) that are better than many existing county collectors.
 - ii. It increases costs of development, and shifts financial resources away from other amenities such as sidewalks, landscaping and better quality housing.
 - iii. It takes an unnecessary additional amount of land for asphalt that could better be used for open space and landscaping.

d. <u>Criteria for selecting candidate development sites</u>. Both the industrial land and rural housing site selection processes contain criteria that require site evaluation to consider the site's proximity to existing transportation and whether the site would remove current farm use from production.

FIGURE ____

RELATIONSHIP OF FUNCTIONALLY CLASSIFIED SYSTEMS IN SERVING TRAFFIC MOBILITY AND LAND ACCESS



46

⁴⁶ <u>Highway Functional Classification Concepts, Criteria and Procedures</u>, U.S. Department of Transportation, 1974, p. II-6.

2. "THE TRANSPORTATION PLAN...SHALL CONSERVE ENERGY" 47

In the event of a continuing or worsening energy availability crisis, transportation will be the most likely candidate for reduction of energy conception (over residential and industrial/commercial). Within that category, passenger transit is much more likely to be reduced rather than freight transit. For that reason, this report has proposed the establishment of either an emergency or full-time public transit system between major cities in Coos County.

There are two major areas involving both transportation and industrial/commercial use where the plan can have a marked effect:

- i. The use of estuaries for log transportation is an efficient use for mills that were constructed to receive logs by water. The use is also much more fuel efficient than land transportation of logs. Very simply, the weight of logs in water is much less than their weight on dry land. Moving a large raft of logs with one tugboat requires not only much less fuel than the log trucks that would otherwise be required, but it also represents less interference with the highway system and conforms well with the goal requirement to avoid relying on one mode of transportation.
- ii. Strip commercial development is costly because of its effects. Its need for individual access and signalization reduces the efficiency of major arterials in providing mobility and high speed movement.
- 2. THE TRANSPORTATION PLAN SHALL...CONSIDER THE DIFFERENCES IN SOCIAL CONSEQUENCES THAT WOULD RESULT FROM UTILIZING DIFFERING COMBINATIONS OF TRANSPORTATION MODES...(AND) AVOID PRINCIPAL RELIANCE UPON ANY ONE MODE OF TRANSPORTATION..." 48

The previous section pointed to estuarine log transportation as one area where Coos County is able to avoid principal reliance on one mode of transportation. The greater problem, however, is what effect the County can have on its existing transportation network. The problem has two major sources:

- i. There is a locally perceived unresponsiveness on the part of state government to help resolve local transportation problems. The Port of Coos Bay is really a large door to a small room. The major problem as locally perceived is and has long been the lack of a high speed multi-lane connector to Interstate 5. Without that connector, improvement of the local economy is likely to fail. Yet, although all other local transportation problems pale in importance in comparison to this one, state action has been slow and insufficient.
- ii. Coos county, partly because of its topography and partly from lack of an adequate connector to Interstate 5, is quite isolated. In the absence of adequate state responsiveness to local needs, many of the most severe transportation

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⁴⁷ Portion of Goal #12.

⁴⁸ Ibid.

problems may not be amenable to solution unless sufficient population growth occurs to generate a large enough demand for improvements.

3. "THE TRANSPORTATION PLAN SHALL...FACILITATE THE FLOW OF GOODS AND SERVICES SO AS TO STRENGTHEN THE LOCAL AND REGIONAL ECONOMY..." 49

Other sections of this report have addressed the relationship of transportation to the economy. A number of alternative methods are possible to encourage such facilitation.

- i. Improvement of State Highways 42 & 38 to multilane status to serve as connectors between the Port of Coos Bay (and urban area) and Interstate 5;
- ii. Preserving the remaining efficiency of major arterials by:
 - a. limiting the number of driveway access points approved along a specific distance:
 - discouraging new strip along commercial portions of arterial development where the existing flow of traffic is largely inimpeded by competing land access points;
- iii. Extending North Bend Municipal airport Runway 4-22 to allow use by commercial jets. (Although aircraft such as the DeHaviland "Dash-7" are capable of short takeoffs and landings, the vast bulk of commercial jets now in service require at least 6,600' runways. The North Bend Airport is functionally obsolete for the major carriers. It may be dangerous simply to assume that most aircraft will eventually be able to land on runways of that size when most urban airports provide sufficient length for contemporary commercial jets.
- iv. Initiating a rigorous analysis toward seeking an alternate regional airport site within the County. Ten alternative sites were considered in the "commercial Airport Siting Element" but were rejected for various reasons. The time constraints imposed on the preparation of that report necessitated the use of assumptions about many of the sites. A more intensive study might increase the attractiveness of one or more of the alternative sites in comparison to the present site.
- v. Improving the relationship of railroad transportation to water transportation by:
 - a. repairing or replacing the Coalbank Slough railroad bridge and Coos Bay Estuary railroad bridge;
 - b. moving the marshalling yard area to a site north of the Coos Bay Estuary;
 - c. encouraging industrial development where spur lines can be added with little difficulty.

⁴⁹ Ibid.

Improving the navigability of the Coquille River. This would connect the "Shallow Draft Development" Port of Bandon to the City of Coquille and its

vi.

hinterlands.

4.8 RECREATION

RECREATIONAL PARTICIPATION
Individual Activity Participation
Projection of Recreation Activities
Activity Preference
Effect of Age and Income Variables on
Activity Preference

RECREATIONAL STANDARDS AND NEEDS INVENTORY OF
AGENCIES AND FACILITIES
USFS - Siskiyou National Forest
USFS - Oregon Dunes NRA
Bureau of Land Management
U.S. Army Corps of Engineers
Oregon State Parks
Oregon State Forest
County Parks
Port Facilities
Private Timber Companies
Private and Commercial Recreation
Facilities

RESOURCE-BASED ACTIVIES AND THEIR ECONOMIC IMPORTANCE
Tourism
Angling
Hunting

Volume I Part 2 679

INTRODUCTION

Coos County is naturally blessed with plentiful recreational opportunities; its scenic sea coast, for sightseeing and beach and dunes activities, its estuaries, lakes and rivers for fishing and other water-based activities, and its inner mountain ranges for hunting, hiking and fourwheeling. The Oregon Dunes National Recreation Area, State and County parks provide a range of opportunities for both County residents and visitors, from fully developed campsites to natural scenic areas and waysides. Federal land agencies, the U.S. Forest Service and Bureau of Land Management provide for dispersed, resource-based recreation along with timber and range production, water and wildlife, in accordance with their "multiple-use" quidelines. Due to its position on the Coast Highway, Coos County derives a fair proportion of its income from the tourist trade, drawn here by the impressive coastal scenery and mild summer climate.

The purpose of the Recreation Element of the Coos County Comprehensive Plan is to make an inventory of needs and opportunities in the County, to identify particular deficiencies or untapped potential, and to protect the vital natural resources that are the basis of outdoor recreation. The Statewide Planning Goals and Guidelines state that governmental agencies with recreation planning responsibilities should coordinate their plans with one another and with private enterprise. This will ensure that the agencies define their respective roles to avoid duplicating facilities or covering all types of needs, those of local residents and visitors from the rest of Oregon and out-of-state. The plan can also help shape cooperative agreements between recreation and land management agencies, so that funds for development and maintenance of facilities can be used more effectively.

Since the term "recreation" can be interpreted broadly to include almost any activity undertaken for pleasure during leisure (non-work) time outside one's own home, it is necessary to focus clearly at this point on the scope of this plan. The types of activities and facilities it is chiefly concerned with are as follows: driving for pleasure and scenic roads; camping and campgrounds (motorized or tents); picnicking; swimming, beach activities; tourism and tourist lodgings and facilities; hiking and walking; primitive campgrounds; boating and fishing; hunting; off-

road vehicle activities; sports and cultural events including team and individual and indoor sports. Certain other, subjects, scenic areas and natural history sites, historical and archaeological sites and mineral resources set down under the Statewide Recreation Goal and Guidelines, have been covered in the Open Space Element.

RECREATIONAL PARTICIPATION

How can we best determine recreational needs and the adequacy of our existing facilities? This question has been studied extensively on a Statewide basis by the Statewide Comprehensive Outdoor Recreation Plan (SCORP), which is used as the basic source of information for this document. The Outdoor Recreation Demand Bulletin1 points out that recreation demand cannot be assessed in the same way as the demand for goods and services within a normal economic framework, since recreation (at least, the public sector) is "underpriced". Thus, an increase in the supply of recreation opportunities is unlikely to lead to a satisfaction of demand; indeed, it has often been the case that increasing the supply has stimulated use still further. Recreational demand is to some extent latent, and therefore, difficult to quantify. It is best studied in terms of the desire to participate in a given activity, and this is to some extent manifested in current patterns of use. However,

rates and patterns of use change so rapidly (witness the expansion of the recreational vehicle market and the C.B. radio boom) that any predictions about future recreational activities must be viewed with caution. One cannot easily foresee what activities will come into vogue. Nor can one predict reliably to what extent future gasoline prices or supply will affect recreational participation, although recreational travel was hard hit during the 1973 and 1979 gas crises". For instance, a gradual rise in gasoline prices might allow people to adjust by switching to more economical models and driving shorter distances to participate, rather than foregoing their favored pursuits, or switching to another activity.

It also needs pointing out that recreational needs can never be truly fulfilled by a mere quantity of a given facility or resource. People also desire quality, and are often willing to go out of their way to find it. "Environmental Quality" can to some extent be defined (in terms of water quality for fishing, for instance) but usually, it is a purely subjective concept, like aesthetic appeal, although one which is readily appreciated by many people. Recreational satisfaction requires not simply that one can find a vacant campsite at the end of the day, but also that the experience is pleasing. The needs of participants range widely, depending on individual preferences and perception. For instance, some would not feel crowded at a level of occupancy that others would find intolerable. These are the variable and intangible aspects of recreational quality.

However, for many common recreational activities, it is possible to make fairly reliable predictions of participation based on changes in three basic factors; time, income and mobility (referred to in the State Plan by the acronym TIM). It has become a truism that increased leisure time, disposable incomes and mobility have combined to produce rapid increases in recreation participation. Age, sex, employment and educational level are also factors, but they tend to affect the type of recreation pre-red, rather than actual levels of participation. It was estimated by the State Highway Division in 19712 that in Oregon, leisure time is increasing by about 0.55 percent annually, real income by 2.4 percent annually, and mobility (in terms of intercity miles traveled) by 0.91 percent annually. This leads to a prediction of an increase of 1.3 percent annually in recreational participation, or 3.3 percent allowing for

TABLE R-1
PROJECTIONS OF RECREATIONAL OCCASIONS - 1970-85

YEAR	(1000) OREGON POP.	ANNUAL PER CAPITA USE	ANNUAL RECREATION
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979	2,135 2,180 2,226 2,273 2,322 2,371 2,421 2,472 2,542 2,577	37.4 37.9 38.4 38.9 39.4 39.9 40.4 41.0 41.5	79,800 82,600 85,500 88,400 91,500 94,600 97,800 101,400 104,700 108,200
1981 1982 1983 1984 1985	2,631 2,687 2,744 2,802 2,861 2,922	42.6 43.1 43.7 • 44.3 44.8 45.4	112,000 115,800 119,900 124,100 128,200 132,700

SOURCE: Oregon Outdoor Recreation Demand Bulletin: Technical Document I of SCORP: Parks and Recreation Branch, State D.O.T., Salem, 1975

ANNUAL PER CAPITA USE: Average number of recreational occasions per person per year (includes out of state visits).

ONE RECREATION DAY: One visit to a recreational area by one person on one day, without reference to length of stay.

4.8-2

Volume I Part 2

-3-

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	_	-		TABLE R-2		•	
	_			STATEMIDE			
	_		PEAK DAY AND INSTANTANEOUS DEHAND - 1970	STANTANEOUS DZH	AND - 1970		
	•						-
ACTIVITY	a	ACTIVITY DAYS	PERCENT OF TOTAL	PEAK DAY PACTOR	PEAK DEMAHA DEMAHA DEMAHA	TURHOVER	INSTANTANEOUS DENAME TOTAL
Piching		12,743,000	4.7	1.0	127,430	٢	127,410
Meting		7,922,000	2.9	1.2	95,066	۳	95,064
Burustag		24,566,000	9.1	1,2	294,792	N,	147,396
Camping		14,752,000	tr.	1.2	177,024	۲	177,024
Bunting .	/	4,257,000	1.6.	6. 0	255,120	۰	255,120
Bicycling		24,427,000	9.1	0.7	170,980	u	56,990
Borse Riding	ā	6,625,000	2.5	0.7	172,200	u	15,458
Outdoor Games	Ĭ	24,600,000	9.1	0.7	172,200	٠.	57,400
Picaicking		23,192,009		1.3	277,224		138,612
Walking		29,873,000	11.1	0.6	179,236	.	39,746
Pleasure Driving	fulng	48,727,000	10.1	0.	389,816 6	N	194,908
Sportiný Events	Panta	7,569,000	2.	0.7	52,903		52,983
Cultural Events	vents	1,282,000	0.5	1.0	12,820	,	12,820
Golfing		5,710,000	7.1	0.7	39,970	+	39,970 .
Snow Activities	16144	4,171,000	1.5	2.5	104,275	-	104,275
Beach Activities	ATELON	23,778,000		o. .	190,224	.	63,400
pthaz		5,605,000	1.1	1-0	56.050		56,050

. . .

an annual population increase in the State of 2.0 percent. Coos County is projected to experience an increase in population of 1.72% annually. (see Housing Element). Nevertheless, recreation participation will be greatly influenced by the trends in the rest of the State: Statewide projections are shown in Table R-1. Overall, the State recreation plan predicted a 70-80 percent increase in use between 1967 and 1985, of which 28 percent was due to increases in the TIM factors and 45 percent to straight population increase.

Individual Activity Participation

Certain activities have experienced greater popularity in recent years and this trend can be expected to continue. Statewide for instance, boating activities increased 75 percent in the 20 year period 1955-1975. Motorized camping showed an even more dramatic increase: (133 percent between 1960-1967). Fishing showed a 28 percent increase between 1956-1967. Certain very popular activities need to be provided for wherever opportunities exist. For instance, in the period studied, the SCORP Study Found that 70 percent of all recreational visits included picnicking and camping and 50 percent included water oriented activities. Table R-2 shows major use characteristics by activity Statewide for 1970. As the percentage of total activity days for each activity shows, pleasure driving and walking are by far the two most popular pursuits; swimming, cycling, outdoor games, picnicking and beach activities are also very popular. Note that swimming and outdoor games are the two most popular pursuits which require major investment in land or facilities. The peak day factor is a better concept than total annual activity days, since it indicates the percentage of total annual use that is likely to occur on . the peak days each year. Runting has a very high peak day factor (6.0) for the opening day of the season; snow activities similarly (2.5). For most other activities, the peak day demand is about 1 percent of the annual total. Peak day demand coverts to "instantaneous demand" by the "turnover factor"; in other words, with a turnover factor of 1, one can expect all those people participating on the given peak day to be doing so at the same time. Certain day-long activities like hunting, fishing or boating experience this pattern of use. For other activities, turnover is such during the day that peak demand is not so significant a strain on resources. Table R-3 provides

~ 6

Volume I Part 2

- 5 -

comparable use statistics for the State's District 7 (Coos and Curry Counties) which is the finest breakdown available for Coos County. Comparison with the Statewide figures shows which activities enjoy heavy participation in the two counties. As might be expected, beach activities are very popular indeed, though not quite as much as for some northern coastal counties. Fishing also accounts for a much higher percentage of total recreational activity. Perhaps surprisingly, hunting is less popular in comparative terms than Statewide. The overwhelming popularity of beach activities apparently affects figures on engagement in several other activities, walking, pleasure driving and swimming appear less popular, though beach activities probably naturally involve all these activities; thus there is simply a shift into a different category. Cycling. horseback riding and outdoor games also appear less popular in District 7, than Statewide.

Projections of Recreation Activities, 1975-1990 for Cocs Courty

The Oregon Outdoor Recreation Demand Bulletin (1975) reports the results of a survey of recreational demand conducted Statewide that same year. It was assumed for the sake of simplicity that recreational participation was the equivalent of demand; however, results should be interpreted with some caution for two reasons: desire for an activity may not be adequately reflected by actual participation, and high demand activities may actually be declining in popularity, while low demand activities may be booming. Trends are actually hard to determine from such statistical surveys, without supplying the insights of up-to-the-minute observations by specialists in the field. The study recommends that agencies periodically check current use figures againstprojections to see if any discrepancies exist. This study updates the 1969 study, and also supplies figures for courties. Through statistical analysis, it was found that the usual TIM factors did not show a sufficiently close correlation with individual activity participation to be used for reliable projections; other factors looked at were age of individuals, family size and education, and the same was found for these. Consequently, the survey took existing 1975 activity rates (participation rate, percent participation and per capita rate) and projected future activity occasions on the basis of population projections supplied by Portland State University. This is not to say that the factors mentioned above are not important or useful; it simply shows

TABLE R-3

TOTAL ACTIVITY DAYS, 1970: DISTRICT 7, COOS & CURRY COUNTIES

	ACTIVITY DAYS	PERCENT OF TOTAL	INSTANTANEOUS DEMAND
Fishing	1507	11.9	15070
Boating	389	3.1	4668
Swimming	839	6.6	5041
Camping	575	4.5	6901
Hunting	103	. 0.8	6174
Bicycling	789	6.3	1824
Horse Riding	90	0.7	210
Outdoor Games	637	5.0	1487
Picnicking	1048	8.3	6288
Walking	815	6.5	1631
Pleasure Driving	1131	9.0	4522
Sports Events	310	2.5	2172
Cultural Events	48	0.4	480
Golf	117	0.9	819
Snow Activities			 .
Beach Activities	3969	31.5	10583
Other	256	2.0	2560
Totals	12620	100.0%	70430

SOURCE: Supplements and Revisions to Oregon Outdoor Recreation: Oregon State Highway Division, Salem, 1972

ACTIVITY DAY: An individual involvement in a single activity while at a recreation area. One person could participate in several activities, resulting in several "activity days".

686

that statistically valid projections cannot be made directly from them.

Results of the 1975 survey and projections are shown in Table R-4; the State survey adds the following cautions in using the projections:

- The estimates are based on a straight line projection of 1975 trends.
- P.S.U's low-range population projections were used as the basis for these statistics.
- Sightseeing was not included in the 1975 survey;
 data was used from the 1969 survey.
- 4. These figures reflect only Oregon resident recreation demand. Visitors from out-of-state are not included. Allowance needs to be made for this factor, especially in coastal counties.

It is possible to take the per capita rates and figure participation for smaller governmental units (cities, e.g.) within the County, on the basis of population.

A look at the figures will show the expected rates of increase in recreational activity. All activities (except sightseeing) have been projected according to the folowing growth rates: 1975-80, 5.9 percent; 1980-85, 6.2 percent; 1985-90, 4.0 percent; this reflects the effect of an expected decline in Oregon's Population growth rate after 1985. Sightseeing, according to the 1969 survey, is expected to increase 15.7 percent between 1975-1980, but decline 2.8 percent in 1980-85, and follow the other trends thereafter. Due to the importance of this activity, total activity occasions are expecte to behave somewhat differently from the standard factor: 1975-80, +7.3 percent, 1980-85, +4.7 percent; 1985-90, +4.0 percent.

The per capita participation rate and the percentage of total activity occasion statistics give the best absolute measure of the popularity of each activity. Much as indicated for Statewide activity rates, pleasure walking is easily the most popular, followed by sighseeing. Picnicking, fishing and outdoor games are also popular in Coos County. Camping and motor boating are the next most popular.

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PER CAPITA: Average number of individual activity occasions during year per capita.carivity occasion: Oca individual angaging in one activity.

-10-

4.8-5

Volume I Part 2

689

- 9 -

Volume I Part 2

Beach activities are not included as a separate category, so these figures are not directly comparable with those shown in Tables R-2 and R-3. One point to note is that motor boating is unusually popular, compared with Statewide, no doubt due to the plentiful opportunities in the County. Two of the activities one tends to associate with rural counties, hunting and off-road vehicles, are actually engaged in by a small segment of the population, 20 percent and 16 percent respectively (less than hiking (30 percent) for instance). Spread over the whole population there are only 2.2 percent and 3.6 percent occasions per person per year, on a par with other activities often regarded on fairly minority interests, horseback riding (2.2 percent), golf (2.3 percent) and tennis (3.8 percent) for instance. These sports are therefore, somewhat minority sports, albeit rather vocal and active minorities.

Activity Preference

One might expect a close correspondence between the activities that people engage in most frequently and their favorite pursuits. The State Recreation Plan, in their Area Activity Preference Survey (Oregon Outdoor Recreation, Supplements and Revisions, 1972), found that there was not; Table R-5 lists their findings. Only two activities appear in the top five in both lists, swimming and pleasure driving. Fishing, mentioned by almost one-fifth of respondents as their favorite activity, was only the most frequent activity for 5 percent. Similarly, camping and hunting are favored activities that are not engaged in with great frequency. The lesson is obvious - there is a gap between people's recreational desires and what they actually have sufficient leisure to participate in; certain readily available pursuits like driving or cycling or walking help fill the gap. The top activities in both lists appear to be high priorities for attention, though for different reasons.

The activities, like fishing, hunting or camping, where a wide gap exists between desire and participation normally require substantial commitments of time, money and energy, and are resource based. However much facilities for these activities were improved, it seems that something of a gap would persist. It would therefore appear best to accord high priorities both to these activities and to their apparent substitutes like bicycling or outdoor games, which are locally based and require much less investment in equipment.

TABLE R-5

COMPARISON OF FAVORITE ACTIVITY WITH ACTIVITY MOST FREQUENTLY ENGAGED IN: (STATEWIDE - 1970)

	MOST FREQUENT ACTIVITY	PERCENT		PERCENT
1.	Pleasure Driving	14.56	Fishing	19.28
2.	Bicycling	11.61	Swimming	15.11
3.	Walking	11.49	Camping	11.57
4.	Outdoor Games	11.31	Hunting	8.94
5.	Swimming	10.05	Pleasure Driving	8.32
6.	Picnicking	6.49	Walking	6.7
7.	Beach Activities	5.60	Picnicking	5.26
8.	Fishing	5.53	Beach Activities	5.26
9.	Camping	4.57	Golfing	4.38
10.	Sporting Events	3.59	Outdoor Games	4.09
11.	Horse Riding	3.21	Snow Activities	3.08
12.	Boating	2.67	Boating	2.95
13.	Golfing	2.55	Horseback Riding	2.00
14.	Hunting	2.00	Sporting Permits	1.11
15.	.Snow Activities	1.88	Cultural Events	0.2
-		100.00%	•	. 100.00%

SOURCE: Oregon Outdoor Recreation: Supplements and Revisions, (1972)

-11-

- 12 ---

Another listing in the survey shows which activities the respondents were unable to engage in (See Table R-6). Swimming comes out as by far the most commonly lacking opportunity; it is highly popular, but requires expensive investment, particularly for covered pools. It was noted in the survey that frequently there was specific reference to indoor pools as opposed to outdoor swimming in rivers, lakes or the ocean. There is no reason to assume that the situation is different in Coos County, because sea bathing is not available in many places due to dangerous currents, and water temperatures even in summer are too cool for all but the hardiest bathers. Camping, snow activities and outdoor games were the next most frequently mentioned activities.

Total recreational visits were broken down by the State study according to the type of park visited; results were reported for Coos County as follows:

COOS COUNTY	PERCENT	STATEWIDE PERCENT
School Playground/ Neighborhood Lots	31	32
City Parks	21	20
Swimming Pools (indoor & outdoor)	26	27
Regional Parks	7	7 .
State-Federal Parks	15 100%	14 100

As is evident, use in Coos County is remarkably similar to that Statewide. Playgrounds owe their great popularity to the fact that they are (or should be) easily accessible to youngsters. Swimming pools, though often less accessible, are very popular facilities, as already noted. Generally, with increasing distance, the actual number of recreational visits drops off. This seems to suggest that there is a greater need for recreational facilities in suitable environments close to major population centers rather than at some distance away. However, suitable environments close in are often less available due to higher land values and conflicting claims of other land uses.

A high priority in city recreation planning should be to identify sites

-- 13 --

suitable and potentially available for recreational development, within, or close to, population centers.

Effect Of Age and Income Variables on Recreational Preferences

The State Activity Preference Survey shows that highest activity rates occur in the 14-17 age group (171 activity days/year).3 Younger children participate only slightly less. There is a dip in activity in post-school-age (18-24). then a rise in the 25-34 age group, with a gradual decline with increasing age. Activity preferences by age group are shown in Table R-7. Significant findings are that walking and driving for pleasure increase in popularity with age; fishing is most popular with those over 55; swimming, cycling and outdoor games account for a significant proportion of activities for the under 17; certain activities like picnicking involve the family as a whole and therefore show two peaks representing parents and young children. It is important to bear in mind these age-dependent user characteristics in planning for recreation facilities.

Activity participation Statewide by income is summarized in Table R-8. Note first that total per capita annual recreation occasions rise with income, as mentioned above. Certain activities are highly positively correlated with increased income, while others appear not to be. Obviously, certain expensive activities like boating or snow activities show high positive correlation with income, as do golf. cycling and swimming (surprisingly). Camping and hunting appear to be strongly preferred by middle income people (\$7,000-\$15,000, 1970 household income). Fishing, driving for pleasure and beach activities show only a weak positive correlation with income. Walking for pleasure is negatively correlated with increasing income. If an effort is to be made to benefit all income groups in recreation planming, then a higher priority should be placed on the latter activities, together with improving swimming and boating opportunities in such a manner that income is not a barrier to participation.

-14-

STATEWIDE: ACTIVITY PARTICIPATION-BY AGE GROUP

.⊈GE	0-23	14-17	18-24	25-34	35-54	55-64	65 +	_
	PER_	PER-	PER-	.PER-	₽ER-	PER-	PER-	
	CENT	CENT	CENT	CENT	CENT	CENT	CENT	
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	_
Fishing	2.73	4.45	5.45	6.31	8-22	10.08	8.03	
Boating	1:93	1.88	3.73	3.81	3.48	2.72	1.74	
Swimming	12.86	12-06	12.16	9.34	7-77	4.04	0.77	
Camping	3.65	3.49	.3-38	.5.59 .	6.33	6.42	3.79	
-Honting	0.60	1.82	2-69	2.68	3.31	3.47	1.92	
Bicycling	.22.55	14.59	5-51	6_27	3.55	0.89	0.82	
Morse Riding	3.45	6.54	3_36	2.04	2.15	1.17	0.55	
Outdoor Games	17.34	18.66	10.51	7-87	4.38	1.75	0.27	
Picnicking '	6.40	3.92	5.90	8.98	7.69	5.99	4.50	
Walking	8.41	7_24	11.72	10.17	12.72	20.05	33.21	
Pleasure Driv.	9.91	8.98	16-52	17 <i>-99</i>	18.28	21.37	24.53	
Sporting Evts.	2.41	5.11	4-50	4.22	4.70	2.67	1.37	
Cultural Evts.	0.43	.0.35	0.65	0.65	0.76	0.69	0.52	
Golfing	0.35	1.36	2.58	3.47	4.99	4.67	5.65	
Snow Activity	1.97	2,99	2.57	1.74	1.35	0.48	0.09	
*Beach Activity	4_13	4.49	6.13	6_13	7.13	8.73	6.33	
Other	0.87	1.86	2-34	2.73	3.20	4.82	5.85	
TOTALS	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

SOURCE: Oregon Outdoor Recreation: Supplements and Revisions, 1972

-15-

Volume I Part 2 694

4.8-8

TICLPATION BY INCOME

-16-

Volume I Part 2 695

RECREATIONAL STANDARDS AND NEEDS

The Oregon Outdoor Recreation Needs Bulletin (1977) outlines standards for recreation facilities, present and projected needs for each county, based on a survey and a series of public "recreational needs forums" carried out by the State Parks and Recreation Branch in early 1977. The end-product is a statement of what facilities and areas are required to meet both the standards and expressed needs, between the present and 1990. Agencies can then decide how to divide up responsibility to meet thee needs.

The standards applied in the State study are derived from a 1973 survey of standards, which involved looking at the standards used by other states with similar population and resource bases.

Standards are used to provide an estimate of needs by comparing supply with demand. A problem with recreational standards in the past is that they have been somewhat arbitrary units like "x acres per 1,000 population" or "x picnic tables per 100 users"; they were not really based on any sound studies of just how many, or how much, is actually sufficient in terms of smooth day-to-day operation. Arbitrary standards have often been used in the past to rule out land acquisitions because no need could be established, missing a fine opportunity to acquire a good recreational site when it was readily available. Such arbitrary standards are not sufficiently flexible to take into account local preferences, needs or unusually rich recreational resources.

To try to minimize arbitrary determinations of need, the State Recreation Needs Bulletin has used the concept of "user recreation space standards" as endorsed by the National Recreation and Parks Association, based on actual patterns of use. To define the concept of demand in a more meaningful manner, the State study has used the level of use (activity or occasions) on the average week-end day in the peak use month (usually July), expressed as a percentage of total annual use. This is known as the Peak Day Factor (PDF). Another factor is worked in to express the proportion of people engaging in an activity who would wish to use facilities, leaving out those who prefer undeveloped or informal areas (for picnicking or camping, e.g.). This is known as the "wish to use" factor (WTU). A "turn-over rate" factor (TOR) is figured in to express the number of

parties that are likely to use the facility on a peak day. These factors are worked into an equation as follows:

Where AO = total activity occasions during one year

ID = instantaneous demand: (The demand for a
 particular facility which might be expected
 at any moment on a peak day.)

This is felt to be an accurate reflection of the demand for facilities that should be provided for. Instantaneous demand is divided by the user space standard to arrive at gross needs; the difference between gross needs and existing facilities gives an estimate of present net needs. The standards suggested by the State for use in local areas (i.e., counties, cities) are shown on Table R-9. Explanations for the user space standards and details of applicable peak day factors. WTU factors and turn-over rates are given in page 13-17 of the Recreational Needs Bulletin. As a result of the above process, based on local user space standards, the State study arrived at the estimates of needed facilities and areas shown in Table R-10. The highest priority items from the State's public forums are shown in Table R-11. It should be noted that because the statistical data have such a low level of reliability in projecting County needs (due to the small area and population involved compared with Statewide estimates), the public forum list has been included as a supplement. The two lists should be taken together. It is important to note that the State study suggests that these should be used as general guide rather than an absolute guide in setting County priorities on an annual basis.

Comparison of the needs assessments in the two lists reveal some interesting similiarities and differences; the following were identified in both lists as high priorities:

Swimming Pools

Hiking Trails

Neighborhood Parks

Bridle Trails

All Purpose Courts

18

4.8-9

Volume I Part 2

-17-

TABLE R-9
USER RECREATION SPACE STANDARDS
LOCAL STANDARDS FOR CITIES AND COUNTIES

E	ACILITY	STANDARD
Swim Bea Walking Hiking T Bike Tra Bridle T Off-Road Off-Road Swimming Golf Hol Tennis All-Purp Ballfiel	able nch Lane ch Trails Trails ils ils vehicle Trails Vehicle Areas Pools es courts ose Courts ds*** hood Parks y Parks	l site/450 Activity Occasions (AO*) l Table/800 AO* l Lane/2700 Boating Days** l Linear Feet/200 AO l Mile/75,000 AO l Mile/10,000 AO l Mile/35,000 AO l Mile/5,000 AO l Mile/5,000 AO l Mile/10,000 AO l Mile/10,000 AO l Acre/10,000 Population l Holes/25,000 Population l Court/2500 Population l Court/2,500 Population l Field/1,200 Population l Field/1,000 Population l Acre/1,000 Population l Acre/1,000 Population
SOURCE:	Oregon Outdoor Document III of	Recreation Needs Bulletin. Tech. SCORP; 1977
±		s based on Trips Received from the letin (Tech. Document I)
**	the 1975 Pleasu	se with this standard is derived from are Boating in Oregon Study for the Board, Page 30, Table 7

TABLE R-10

COOS COUNTY RECREATIONAL NEEDS

			GROSS		NET .	NEED
FACILITY	UNIT	SUPPLY	, NEFD	75	80	90
Camp Sites	Site.	1,525	755	(770).	(690)	(512)
icnic Tables	Table	896	723	(173)	(109)	31
wim Pools	Pool	3	6	3	3	4
Soat Launch Lanes	Lane	23	35	12	14	19
Swim Beach	Feet	2,000	1,125	(875)	(890)	(685)
Nalking Trails	Mile	18	20	2	· 3	5
Hiking Trails	Mile	4	18	14	15	. 17
Biking Trails	Mile	65	9	(56)	(55)	(54)
Bridle Trails	Mile	1	26	25	. 27	30
Ballfields	Field	35	24	(21)	(10)	· (7)
Tennis Courts	Court	16	24	8	9	12
All Purpose Courts	Court	10	24	14	25	18
ORV Trails	Mile	30	21	(9)	(7)	(5)
G olf	Holes	54	45	(9)	(9)	(9)
Neighborhood Parks	. Acres	57	297.5	240.5	258.5	291
Community Parks	Acres	306	595	289	324	390
District Parks	Acres	856	892.5	36.5	89	188
Regional Parks	Acres	2,891	1,488	(1,494)	(1,406)	(1,241)

SOURCE: Oregon Outdoor Recreational Needs Bulletin. (1977)

Ballfields include baseball, softball, rugby and

soccer fields

^{():} Brackets denote a theoretical surplus

In addition, the following were identified as high priorities in the public forums, but appear more moderate priorities in the needs assessment: .

Boat Launch Lanes

Tennis Courts

The following were not considered in the needs assessment, but appear as special local needs:

Shooting Ranges

Multiple Resource Recreation Areas

All Purpose Trails (motorcycles)

The following were felt by the public forums to be high priorities, but are already over-provided according to the space standards:

Campsites

District Parks away from the coast

Bike Trails

ORV Trails (i.e.; all purpose trails

in the public forum list)

The following appear to be low priority items according to user space standards:

Beaches for swimming

Golf Parks

Walking Trails

Picnic Tables

Ballfields

The last listing requires some comment: Coos County is listed in SCORP as haveing 35 ballfields. SCORP does not make a distinction between hardball and softball fields: it's been reported that there are approximately four hardball fields in Coos County. This most certainly includes school facilities, and since very few of these are presently open for public use, while not all of the demand for ball games is from school or college age people, there could in fact be a considerable lack of provision for certain parts of the population who would want to play baseball, softball, soccer or other team games on an informal basis. The apparent over-supply of bike trails is misleading, since by far the bulk of the 65 miles of "bike trail" in the

- 22 -

TABLE R-11

HIGH PRIORITY NEEDS ASSESSMENT FOR COOS COUNTY

CAMPSITES

MAINTENANCE AND OPERATION FUNDS

INDOOR POOLS

BOAT LAUNCH LANES

BIKE TRAILS

MULTIPLE USE TRAILS

TENNIS COURTS

SHOOTING RANGES

HIKING TRAILS

BRIDLE TRAILS

ALL-PURPOSE COURTS

NEIGHBORHOOD PARKS

DISTRICT PARKS AWAY FROM THE COAST

MULTIPLE RESOURCE RECREATION AREAS

SOURCE: SCORP Public Hearings, March 1977.

Note : This list does not imply any order of priority.

-23-

Volume I Part 2

County is in fact along highways, Specially built bike trails are actually in short supply (confined to the Empire-Barview bike paths recently constructed), hence the concern by the public for more bike trails.

The 1978 SCORP maps three Oregon Recreation Trails that pass through Coos County:

- i, Coast Range Horse & Hiking Trail;
- ii. Oregon Coast Bicycle Route;
- iii. Oregon Coast Hiking Trail

The 1978 SCORP (page 5.43) notes that while the Coast Bicycle Route has been completed (apparently), the Coast Hiking Trail is largely incomplete and the Coast Range Trail is nonexistent. The 1978 SCORP fails to mention whether the trails are scheduled to be completed and who shall bear the burdens of cost and maintenance.

Campsites are indeed plentiful in the County, but local people evidently feel they are still under-provided. Perhaps the reason is that most campsites are tourist-oriented and not the type of site where one would wish to stay more than one night; there is evidence, according to the County Parks Department; that County people prefer a longer stay at campgrounds. There was also testimony at the Recreational Needs Forum (March 19, 1977) that County Parks campgrounds are very busy, and more money is needed for maintenance because of this. Another specific need that does not appear in the State's list is for a district park away from the coast. Inland, the weather is usually warmer in the summer, and there is a considerable concentration of major parks on the coast. What is apparently needed is another warm-weather park inland to take the pressure off Laverne Park which frequently is heavily used in the summer months, according to the County Parks Department. Other comments made by citizens at the March 18th meeting are summarized in Table R-12.

TABLE R-12

COMMENTS OF CITIZENS AT PUBLIC FORUM ON OUTDOOR RECREATIONAL NEEDS (MARCH 18, 1977)

FACILITY	COMMENTS
CAMPSITES	State rates as low priority; County Parks disagrees. County Parks very busy; need for more money for maintenance. State and County parks charge \$3-5 a night
PICNIC TABLES	Plenty of them; County Parks - "health regulations require day use areas to have restrooms; this is proving expensive, and could prevent greater use."
INDOOR POOLS	A great need. Outdoor pools in this area are too cold and windy. B.O.R. money will be available later for indoor/covered pools, (e.g., cover for Coquille pool; Myrtle Point and Bandon want pools).
MING BEACHES	Demand great; need more. Difficult to find ocean beaches suited to swimming (rough water, currents). Need areas within 15-20 minutes drive of Coos Bay/North Bend, (e.g., near Menasha plant, or on West Fork of Millicoma River.
BOAT LAUNCHES	Definite need; State land and money are available for construction. County parks must maintain. State can give technical assistance to design facilities that require minimum maintenance.
WALKING TRAILS/ HIKING TRAILS	For day-hiking in urban areas. Would be used if provided. High need to improve Pacific Coast trail through the County. Needed in forest areas rather than on dunes, where they will be used more. Needed in urban areas for elderly people, and also for jogging.

-- 25 --

TABLE R-12

PACILITY	COMMENTS
MULTIPLE-USE TRAILS, BIKE TRAILS	Especially bridle trails; not adequate. Bike trails especially needed in urban areas and along highways (Hwy. 101); but reed to separate vehicle from cycles.
TENNIS COURTS	More needed. Need cover and lighting. Need higher than identified by State.
NATURAL AREAS	Local people fear more restrictions on what you can do on the land; but are willing to preserve historic areas.
OTHER COMMENTS	 Need multi-purpose park for all kinds of field sports. Need for greater use of school fields and facilities. Lack of rifle and pistol and archery ranges; could be promoted through a sportsmen's park. Need for more bank-access to lakes, rivers (farmers were concerned at lack of regard by people crossing farm land - wouldn't agree to access easements; would demand outright purchase of land). It was felt there is a high need for recreational facilities in the County because of heavy use of local resources by visitors.

SOURCE: Coos County Parks Department: Advisory Board.
Recreational Needs Forum, (March 19, 1977).

INVENTORY OF RECREATION AGENCIES AND THEIR FACILITIES

U.S. FOREST SERVICE-SISKIYOU NATIONAL FOREST

The Siskiyou National Forest manages about 77,000 acres of public lands in the extreme southern portion of Coos County. See maps R-13 and R-14 for the extent of holdings and recreational facilities and important natural features. The whole of the Siskiyou National Forest lands within Coos County are Within the jurisdiction of Powers Ranger District. The Forest Service manages its lands under the Multiple Use Sustained Yield concept, and considers recreation as one of those legitimate uses with values that need to be protected while harvesting timber. This requires detailed planning of cutting operations so as to protect vital recreational resources, water quality, fish and game habitats and scenic views. When funds are available, for instance, stream cleaning work is done to clear streams of logs and open the way to migrating fish. Stream bank erosion control is practiced. both by stablization and leaving buffer strips. Harvest operations are planned to leave as much "edge" as possible. to promote deer and elk habitat. There are also guidelines for non-game species - leaving snags for eagles for instance. Roadside stabilization projects use a grass mixture that is attractive to deer and elk.

The bulk of recreational use on these National Forest lands is by local County people, in contrast to the nationally famous Rogue River Valley immediately to the south in Curry County. They seek the small developed and primitive camp grounds, the fine fishing in the Coquille River and hunting for black-tail deer, Roosevelt Elk, bear, and game birds. There are also interesting natural sights: the Coquille Falls, the champion Port Orford Cedar; several small lakes (some with fish) and some excellent view points over the Rogue Valley, linked by the Panther Ridge Trail. This trail is planned for rehabilitation in the next year or so by a Young Adult Conservation Corps work crew, and there is also a possibility of a re-opening an old disused trail down to the Roque River National Scenic Trail near Illahe. Other trails are used primarily by hunters or anglers. Use by ORV's is very limited due to the steep slopes, as is use by snowmobiles (confined to roads) due to the brief snow season. There appears to be no real potential for other winter sports. One remote possibility is that Pacific Power and Light Company has plans for a combined coal-fired, water-powered, electricity generating facility at Eden Ridge. They already have leases on the coal deposits there. Such a facility could no doubt include recreational opportunities, like boating. It is, however, very doubtful if the facilities provided would compensate for the loss of fishing, hunting and scenic values in this area.

OREGON DUNES NATIONAL RECREATION AREA

The Oregon Dunes NRA, managed by the Siuslaw National Forest, has about 11,000 acres in Coos County, (see Map R-15). It was set up in 1972 by Act of Congress to preserve for future generations the recreational values of this unique resource. The area consists of vast tracts of sand dunes, the largest on the west coast, with interspersed deflation plains (including shallow lakes) and forests of shorepine and Sitka spruce. At present recreational use is mainly confined to some beach activities at Horsfall Beach, some camping at one of the three campsites, some fishing and duck hunting at the small lakes, and ORV and dune buggy driving over the dunes. At present, ORV's are limited by management objectives to established trails or open dunes to prevent damage to the fragile vegetated areas, thus risking blow-outs and rapid sand movement. 5 The section of the NRA from just south of Tenmile Creek to the County line is off limits to ORV's and the beach along this section is closed during the summer months, as is Horsfall Beach (May 1 to September 30). State Department of Environmental Quality regulations prohibit use of ORV's without adequate mufflers, and this is enforced by NRA rangers. The NRA reports that the ORV clubs are usually responsive to these management objectives, and provide good cooperation, since it is in their interests to continue good relations with the NRA. Only a few "mavericks" give dune buggy and ORV users a bad name. Another project under consideration at present is destabilization of certain foredune areas to attempt to preserve the large packdunes in their natural state. The supply of fresh sand has been greatly reduced, allowing wind action to scour the deflation plain down to the water table. This leads to the spread of aquatic vegetation often at a rate of 40-45 feet a year, toward the east. This alters that natural form of the dunes considerable. Sometimes, too, further stablization is needed to prevent encroachment on highways or railroad rights-of-way.

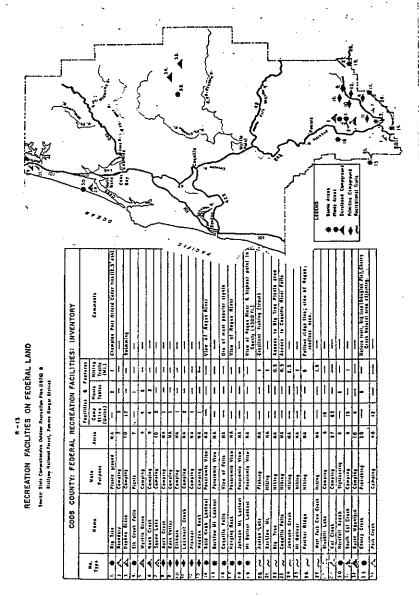
-30-

Volume I Part 2

LANDS SUITED TO DISPERSED RECREATION: PUBLIC AND MAJOR FOREST INDUSTRY LANDS

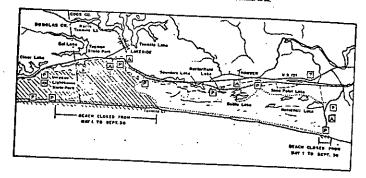
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Volume I Part 2



R-15
OREGON DUNES NATIONAL RECREATION AREA
COOS CO. SECTION

Source: Siesiew H. F., Oregon Dunes, Mutlemet Warmen



F:			
3	Ketional Recreation Area		Compground
	3004	8	Picnic Area
	Read	8	_
*****	- Trett		Seat Rump and Parking
******	Raffreed	•	Historical 3116
Ð	Perking Let	₽	Vista Paint
Ð	Information Site	Œ	Visitor Conter
2778	Arous closed to off-road		•

-31-

4.8-15

Volume I Part 2 709

A proposed management plan was released in 1974, 6 which sets forth specific proposals for new recreational facilities and management objectives for the NRA. Within Coos County there are plans for a visitor center, one new campground, an information site, five new parking areas and four new trails, including one down Tenmile Creek, and one along the beach (part of the Oregon Coast Trail). (See Map R-15). A large campground near Butterfield Lake is planned and South Eel Creek camp may be converted for cyclist use if demand suggests this need. Picnic facilities will be provided at Butterfield Lake, Tenmile Creek and Big Dune on Horsfall Road. ORV access to the dunes will be from Tenmile parking lot, Hauser parking lot, Horsfall Dune (as at present). Additional management objectives relate to wildlife habitat improvement, particularly the planting of grains around prime duck habitat to maintain the values of the Pacific Flyway.

The NRA contains some areas of private land not owned by the Forest Service. The policy in the "Dunes Sector" or core of the NRA is to buy these lands (very little is actually in this sector). The remaining private lands are in a buffer area designated as the "Inland Sector" in the original Act. Here the policy is to allow existing use rights, with the right to add to or replace existing structures; in addition; certain commercial uses ancillary to the NRA (dune buggy concessions or campgrounds) will continue to be certified. But uses not contributing to the NRA objectives will not, (e.g., residential uses, restaurants or motels). The test is whether the proposed use promotes public enjoyment of the dunes and their conservation. The impact of any new development will be considered relative to proximity to open dunes, critical wildlife habitats, site modification, sanitation and aesthetic effects, before being certified. All other land acquisition will be on a "willing-seller" basis.

BUREAU OF LAND MANAGEMENT

The BLM owns and manages extensive tracts of land, mostly in the mountainous eastern part of the County. (See Map R-14). Like the Forest Service, they manage their lands under multiple use guidelines. However, their lands are for a great part in "checkerboard" style ownership patterns with private forest companies owning intervening sections,

So access and recreational use is somewhat more limited. Use is of course, heavier along the major rivers and streams by anglers and hunters. BLM also owns and manages a strip of land along the coast at New River, near the Curry County line; this is a very popular area for anglers, although access is a difficult problem. (See section on Angling).

The BLM recreational staff is currently working on Unit Resource and Analysis (URS-3), a three step process which involves some public input.

- 1. An inventory of recreational potential.
- Steps that can be taken to increase the quality and quantity of facilities and their use.
- 3. Recommendations to the unit manager for implementation.

It is felt that the use would increase if facilities could be provided in suitable locations.

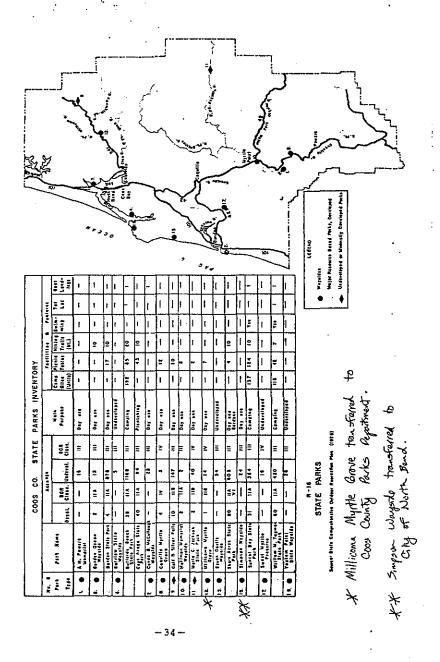
U.S. ARMY CORPS OF ENGINEERS

The Army Corp · of Engineers administers 3,600 acres of public lands on the North Spit, by far the largest holding in this area. Other portions of the North Spit are being developed or proposed for industrial uses, in part because needed deepwater access can be provided without requiring passage through the relatively narrow Southern Pacific railroad bridge that crosses the bay. (See Industrial Lands Inventory & Assessment.)

This area also receives extenfor four-wheeling and dune buggy activities, since there
are no paved roads at present across the Corps' land. The
Corps engaged in a public hearing and workshop process
as a preliminary to a Master Plan for the North Spit which
will reflect public feeling on future use of this relatively
unspoiled area of dunes and scenic forest.

OREGON STATE PARKS

There are 19 State Parks in Coos County ranging from the large developed, tourist-oriented parks along the coast like Sunset Bay and Shoreacres, to the small waysides like Millicoma Myrtle Grove and Simpson Wayside. (See Map R-16). Since the bulk of the State Parks are on the coast close to Highway 101, they receive heavy out-of-county and out-of-state use and



provide both day use and overnight camping facilities. They have a key role to play in bringing tourist dollars into the County.

A summary of the 1975 State Parks Visitor Survey is shown in Table R-17; about 40 percent of day visitors and 55 percent of campers in Coos County's State Parks were from out-of-state (about the same as for Statewide, except California accounts for a larger share). Note that a full third of campers using Coos County's camping facilities in State Parks are from California. According to this study, day use by non-residents has risen Statewide since a previous study in 1964, while the proportion of non-resident camper use has declined. Total attendance figures for recent years are shown in Table R-18. This shows that Sunset Bay is by far the most popular day use park, but Bullards Beach is more popular for camping. Use figures for the other more minor State Parks are not available. Use in 1976-77, shows a slight decline on the previous year, but estimates indicate that attendance is expected to be up by 8 percent in 1977-78. Historical records show that the peak year for State Park visits was 1972-73, just prior to the "gas crisis". Following the subsequent slump in use, figures have risen steadily, although they are expected to decline again to reflect increased concerns over the supply of gasoline.

These recreational visits generate a considerable expenditure within the County in food, gasoline and other items. (Table R-19). State Parks estimate (State Parks Visitor Survey, Coos County; unpublished findings) that expenditure within a 25 mile radius of visits averaged \$8.98 per person for day users and \$14.36 per person for campers. (Note that the attendance figures have already been corrected to allow for the fact that many people visit more than one park per trip, so attendance figures can be used directly to calculate approximate expenditures). Use of these figures indicates that on the basis of the nine most important State Parks alone, Coos County businesses benefit by about \$22 million annually.

Some socio-economic data on State Park users reveal some interesting facts which indicate the nature of their "clientele". Statewide survey data show that State Park visitors are typically families with two children, with some college education and over \$15,000 household incomes (1975

-35-

4,8-17

TABLE R-17

ORIGIN OF VISITORS - 1975
(Statewide Figures are in Brackets)

PLACE OF RESIDENCE	DAY	USERS	CAM	PERS
OREGON	59	(58)	45	(48)
WASHINGTON	6	(12)	6	(14)
CALIFORNIA	22	(16)	33	(21)
IDAHO	1	'(2)	. 1	(3)
OTHER STATES	6	(9)	11	(10)
CANADA	6	(3)	. 4	(4)

SOURCE: Oregon State Parks Visitors 1975, and unpublished figures for Coos County. (Based on visits to four parks: Bullards Beach, Shoreacres, Sunset Bay and William Tugman).

TABLE R-18
ATTENDANCE AT COOS COUNTY STATE PARKS

	DAY USE	(Persons)		CAMPERS	(Persons)
LOCATION	1974-75	1975-76	1976-77	1975-76	1976-77
BANDON	201,332	199,152	242,638		
BANDON					
OCEAN	174,182	140,798	151,728		
BULLARDS BEACH					
WAYSIDE	317,858	333,334	323,318	61,126	69,372
CAPE		_			
ARAGO	236,396	245,480	281,052		
SEVEN			•		
DEVILS	52,882	54,438	57,206		
SHORE-					
ACRES	202,716	392,910	403,396		
SIMPSON WAYSIDE	95,760	871,112	62,240		
		011,112	02,240		
SUNSET BAY	751,660	771,280	587,519	51,793	52,778
WILLIAM TUGMAN	172,066	167,536	178,264	30,140	33,579
			4.0,203	30,140	22,373
TOTALS	2,204,852	2,392,140	2,287,361	142,959	155,729

SOURCE: Oregon State Parks Visitor Survey, Coos County, Unpublished Data, 1975.

-36-

4.8-18

Volume I Part 2

-37-

TABLE R-19

EXPENDITURES GENERATED BY VISITS TO STATE PARKS IN COOS COUNTY

	DAY U	SE	CAMP	ERS
	ATTENDANCE	EXPENDITURE	ATTENDANCE	EXPENDITURE
			ļ ·	
1974-75	2,204,852	\$19,800,000		
1975-76	2,392,140	21,481,400	142,959	\$2,052,900
1976-77	2,287,361	20,540,500	155,729	2,236,400

SOURCE: Oregon State Parks Visitor Survey, Coos County. Unpublished Figures, 1975; (Plus Staff Computations).

CREGOR STATE PARKS PROPOSED DEVELOPMENT PROJECTS

# 5,000	COOS COUNTY	et-11 xx	77 79-61	FT 01-03
### 185,000 #################################	decaping, Irrigation adecaping	3,000	6,400	
Vault Restroom, Landacapa, Firmin Tables Parking Park	Bendon Park Fountain, Tables Shaiter, Utilities, Landsonping Trail	2,006.	002.4	2,300
bing, Utilities 16,000 the carport, Trails 100,000 10,000 10,000 11,000 150,000 10,000 10,000 17,000 10,000 17,000 17,000 17,000 17,000 17,000 17,000 17,000	Bullards Beach Park. Utilaties, Jetty Valt Festroom, Landscepe, Firmic Tables Play Ares, Pionic Tables, Trail, Shekter, Utilities Fonce, Equestrian Parking	185,600	000*56	30,060
tt settoom, Utilitiem 4,900 Trail 1, Restroom, Carport, Trail 180,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 12,000 12,000 12,000 12,000 12,000	Cape Arago Park Pionic Takes, Curbing, Utilities Front, Landscaping		18,000	000'•
Opfied Trail Opfied Trail 100,000 17,000 1, Fancing Paint Shed, Trail 150,000 15,000 10,000 17,000 17,000 17,000	Baven Divils Myside Pionic Tables, Footbridge, Utilities Trail and Verpoint		4,500	909**
Paint Shad, Frail 130,000 13,000 130,000 10,000 10,000 10,000 17,000 17,000	Shore Acres Park Restroom, Dpland Trail Payed Sevice Area, Restroom, Carport, Trails Greahbure, Fencing	100,600	77,000	45,000
usp. Pit Tollets, Trail Lo,000 Lo,000 Lo,000 Lo,000 Lo,000	Sunset Bay Utilities Footbidge, Paint Shed, Treil Utility Building, Carport, Bridge	780,000	13,600	93,000
Trail the Restroom	William Tugman Veilities Trail Rike-in Camp, Pit Tollats, Trail	150,000	10,000	16,000
	Yoakna Point Panding, Trail tes Rading, Trail (Atts, Restrom		17,606	76,200

--38 ---

-41-

dollars). In fact, over two-thirds of household heads had more than high school education; 43 percent of day users and 53 percent of campers had over \$15,000 household income. This distinctly middle-to-upper income level clientele is further reflected in the recreational equipment that users have invested. In Coos County State Parks, for instance, fully 49 percent of campers (and 18 percent of day users) arrived with self-contained camping units of some nature, (including 10.8 percent motorhomes, 19 percent pickup campers and 7.9 percent vans). The study also noted that ownership of specialized recreational vehicles had increased dramatically since 1964.

The Statewide Visitor Study⁹ also provided a breakdown on the distance traveled by day users and campers; 28 percent of day users and 4 percent of campers traveled less than 25 miles. Campers tended to travel between 100 and 200 miles on the average, with a particular State Park as their destination. It is probably a fair assumption that distances are the same for the parks in Coos County.

The pattern for day use, however, is different in Coos County. Local day use is quite heavy, and makes up the bulk of use during off-peak periods. Use by local people is quite heavy during peak-season also. Typically, people like to take friends from out-of-town over to the State Parks; young people hold beach parties at Sunset Bay on summer weekends. As explicit data are not available on the extent of local use, one has to rely on the experience of State Park personnel.10

These findings show that the importance of the State Parks in the County lie as much in direct and indirect contribution to the economy as in meeting the recreational needs of County residents.

The State Parks and Recreation Branch issued a six year development plan (Oregon State Parks System Plan, 1975-81, Salem, 1975) which was updated in the fall of 1976, for the period of 1977-83. This document re-evaluates objectives in light of recent trends and proposes a capital improvement and land acquisition budget. The relevant section is shown on Table R-20. There are no proposals for land acquisition in Coos County. Much of the projected expenditure is to increase the provision of existing facilities (e.g., picnic

tables, etc.) or provide improved facilities. For instance, toilet facilities will have to be upgraded in many instances to meet regulations. All the proposed improvements will be to coastal parks which receive the bulk of annual use. The emphasis is on providing better facilities at existing popular parks rather than on creating new parks, since land acquisition is so expensive. Changing use patterns have shown that campers are tending to spend longer times at parks and regard the parks as their destination, demanding facilities to match. Thus, there is an emphasis at present on improving water and sewer systems. Most acquisition is for special projects (historic preservation, scenic trails and waterways). The six year plan also includes master plan studies for Sunset Bay and Bullards Beach State Parks.

Existing State Parks were assessed according to certain recreational lands criteria (Classes 1-5), to decide their level of uniqueness or Statewide recreational significance and suitability for development. Certain parks did not meet these criteria, either because they have low site significance, are considered replaceable elsewhere, or have low suitability for development; they were accordingly placed in Class 3, 4 or 5. The State Parks System Plan proposes the transfer of several of these parks to ownership or management by other agencies; they are as follows:

Coquille Myrtle Grove State Park -- To County Park

Golden and Silver Falls State Park -- To County Park

Hoffman Memorial State Park -- To County Park

Maria C. Jackson State Park -- To County Park

Millicoma Myrtle Grove State Park -- To County Park

Simpson State Wayside -- To City of North
Bend

It is considered that these parks are of more local than Statewide significant, and should be managed at the local level.

- 39 -

8-20

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OREGON STATE FOREST

The Elliott State Forest is an area of about 65,000 acres (in Coos County; the remainder is in Douglas County) in the remote and very rugged northeast part of the County. It is shown in Map R-14 as an area available for dispersed recreation. It is relatively lightly used for recreation, almost all of it occurring along the rivers and streams, and confined to hunting, fishing and some associated camping and picnicking. The Ctate Forest is managed-exclusively for timber production, unlike Federal lands; about 90 percent of its area is State Land Board Lands, the revenue from which goes to the State schools fund. The other 10 percent belongs to the State Board of Forestry, the earnings from this land go to the County, the bulk of which goes toschools. 1 New quidelines on the was of State owned forestry lands for recreation have recently been issued, but they only refer to this 10 percent of Elliett State-Forest.

About 3.5 percent of the total acreage is being managed for its scenic qualities, which will restrict cutting to a large extent. This policy is in force on part of the West Fork of the Millicoma above Allegany. East of Lakeside there are 80 acres above the South Tenmile Lake, where some nature trails have been opened up. This is Board of Forestry land. It is possible that there will be minor recreational developments on this land in the future. Otherwise, the present pattern of informal dispersed recreation will continue. For instance, the Elkhorn Ranch (an old homestead), is a favorite area with open grass along a river, where light recreational use occurs.

The State Forestry Department is managing for this use, but is not actively encouraging more intensive use, as this will then require the provision of facilities, which is not their function. It is felt that it is better to leave it in an undeveloped state for those who are familiar with it (mostly loggers who work in the area, and their families).

TABLE R-22 CAMPING AND PICNICKING USE AT COUNTY PARKS

1976	TOTAL PEOPLE	FEES	PICNICKERS	TOTAL
Laverne Park	4,600	\$ 4,673	9,945	14,545
Powers Park .	1,784	2,595	3,175	4,959
Bastendorff Beach	12,165	18,233	1,560	13,725
TOTAL	18,549	\$25,500	14,680	33,229

	TOTAL PEOPLE		ORIGIN	PICNICKERS	ESTIMATES TOTAL
Laverne Park	12,000	12%	in-county in-state out-of-state	2,675	15,000
Powers Park	3,775	34%	in-county in-state out-of-state	4,230	8,000
Bastendorff Beach	**	37€	in-county in-state out-of-state	6,764	15,000
TOTAL	14,140			13,669	38,000

SOURCE: Coos County Parks Department - Unpublished data.

NOTE : 1976 Figures were for May-September. 1977 Figures were for June-August

- 44 -

-43-

OREGON STATE RECREATION TRAILS

The Oregon Recreation Trails System was created by an Act of the Oregon Legislation in 1971 (ORS 390.950-390.990). The Recreation Trails System is administered by the Parks and Recreation Division of the Oregon Department of Transportation, which summarizes the trails program as follows:

"A statewide interconnected trails system for hiking, bicycling and horseback riding is under development by the State Parks and Recreation Division of the Department of Transportation in cooperation with citizen groups, other government agencies and private landowners.

The ultimate goal is a network of recreation trails which will allow Oregonians and visitors to walk or ride to any of the major recreation attractions without depending on motor vehicles. The system will include recreation trails in urban areas. scenic trails on the coast, mountains and desert and connector trails between them.

The trails program was begun following passage of the Recreation Trails System Act of 1971. That Act provided the legal basis for a trails system, assigned the responsibility to the Transportation Commission and created the eight-member, Recreation Trails Advisory Council which is appointed by the Governor."

(Source: Letter from State Parks and Recreation Division, March 15, 1984).

There are three coastal components to the State Trails System:

1. Coast Bicycle Route

This scenic coastal route provides enjoyment for bicycle enthrusiasts, and is contained entirely within public right-of-ways.

Oregon Coast Trail

This scenic, partially complete trail provides enjoyment for hiking enthusiasts. In Coos County, the Trail is only developed across the State-owned lands in the parks south of Charleston.

Coast Range Trail

This trail exists in <u>concept</u> only, and is intended for hiking and horse riding. At present, its proposed route is not more specific than a general corridor.

LCDC Goal 5 requires an analysis of possible conflicting uses with resources such as the three State Trails that pass, or may someday pass, through Coos County. An assessment was conducted to identify existing or potential conflicts, and none were found to exist. Several factors support this conclusion:

- Site selection for trail development must "minimize adverse effects on adjacent landowners or users and their operations (ORS 390.965(1)(c))."
- "Development and management of trails shall be designed to harmonize with and complement any established forest, agricultural, or other use plan . . . (ORS 390.965(1)(d)."
- The State is required to give emphasis to the development of trails across <u>public lands</u>, and no trails may cross private land occupied by a dwelling without <u>consent of the owner (ORS 390.965(1) (a&b)</u>.
- Pursuant to State Law, designation of the Trails "shall not impose any limitation upon an otherwise lawful use of the adjacent private land" without consent of the owner of such land (ORS 390.968(2)).
- 5. It is impossible to identify specifically where future trails may be sited, since the State is specifically <u>prohibited</u> from excercising its powers of eminent domain for site selection and property acquisition (ORS 390.989).

The Oregon Recreation Trails System Act recognizes trail development may have adverse impacts on adjacent properties and uses, but provides a measure of protection for private property rights. In other words, the Act itself is a "program to resolve conflicts" pursuant to Goal 5, if conflicts are perceived. However, the State Parks Coordinator foresees no problems or conflicts with trail development. The Coordinator merely asks the County to adopt a plan policy recognizing the State Trails Program and agreeing to coordinate and cooperate with the State Parks Division in implementing it in the future (Telephone conversation with Mr. Jack Remington, ODOT State Trails Coordinator, March 14, 1984).

COOS COUNTY PARKS

Land and Facilities

Coos County Parks Department owns and/or manages a wide variety of recreational lands in all states of development. (See Map R-21). Its three main parks, Bastendorff Beach, Laverne, and Powers are set up as all-purpose parks with camping, picnicking, game areas, swimming and fishing opportunities. They are popular for large group activities and for camping. The time limit for camping is 10 days, and many campers like to stay the limit. Use figures are shown in Table R-22. Laverne is the most popular warmweather park for day use, and Bastendorff Beach receives most camper use. Laverne is used mostly by County residents, while Bastendorff is favored by visitors to the County. Powers Park, the most recently developed, is considered under-used at present, probably due to the fact that there is no reservation system and people are cautious of driving such a long distance to find that there are no camping sites available. For this reason, reservations have been started for the Powers Park on a trial basis in an effort to increase use and revenues, and may be introudced also at Bastendorff Beach. Camping fees generated about \$25,500 in revenues to the County in 1976.

A number of other parks of varying acreage, mostly minimally developed, are available for day use. Several were gifts of land to the County and are in somewhat remote locations, like Frona Park or Cherry Creek Park. They offer picnic tables and often some stream frontage for anglers. Other areas of land like Rock Prairie and Middle Creek, are undeveloped tracts of land that simply exist in their natural state. The County also maintains a number of boat ramps which were provided under a joint agreement with the State Department of Fish and Wildlife like those at Coquille and Riverton, for example. These are part of the Angler Access Master Plan for Coos and Curry Counties. (See section on Angling).

Needs and Priorities

The County Parks Department is in the first stages of setting priorities for future development. Needs and problems can be readily defined, but a formal list of priorities is not

being drawn up. This is mainly because it can never be predicted what opportunities might occur due to land or money suddenly becoming available for a particular type of project. Having a formal priority list might prejudice a worthwhile development because of its relatively low priority upon its suddenly becoming feasible.

The most pressing management problem in the County Parks system at present is the overcrowded conditions that exist at the main inland warm-weather park, Laverne. Frequently, on weekends during the peak summer months, over 1,000 people can be in attendance at one time, which creates severe maintenance and policing problems. Traffic volumes on the main access road from Coquille can also be very heavy, and the road is barely adequate. Improvements are currently underway on adjacent land (West Laverne Park), including with picnic tables, toilets and a softball diamond and multipurpose courts. The road conditions remain a problem that the County will need to face. The highest priority is for the County to acquire a new site for a warm-weather multi-use park to take the pressure off Laverne altogether, preferably in a location closer to the Bay Area, for instance in the ·Coos River System.

Another high priority, and one for which funds could be made available, is to provide more boat ramps for small boat fishing, and to maintain existing ramps.

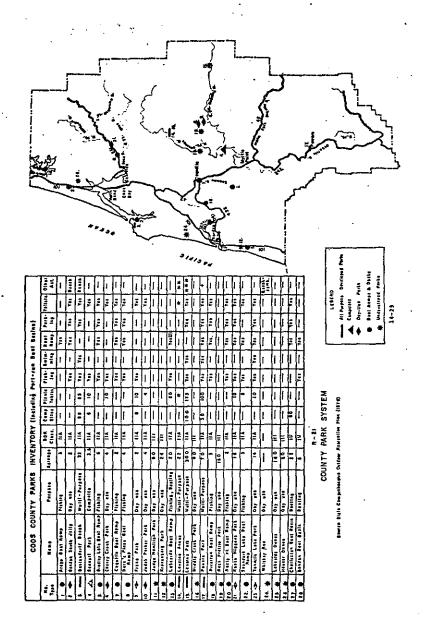
Provision of new boat ramps depends largely on the ability of the Oregon Department of Fish and Wildlife to negotiate land purchases or obtain access agreements. This is so because the county must devote a great proportion of its recreation funds to maintenance of existing sites, and relies on the State Marine Board for capital outlay funding.

Additionally, the Port of Coos Bay also stores responsibility for actively constructing boat ramps for the general public.

Other than these priorities, the main priority in the past has been to maintain and improve existing parks, due to the high levels of use some are receiving, and the constant problems that occur with willful damage.

Several other needs can be identified, though they have not yet been officially accorded high priority. More work needs to be done to see how the needs of certain "special interest groups" should be met; ORV and motorcycling enthusiasts, horseback riders, rifle marksmen and archers, joggers and cyclists. Part of a cycle trail between Empire and Charleston has been constructed along the Cape Arago Highway, using funds from the State pool set up for cycle paths (from State Highway Fund). There are plans now to obtain more State funds to

- 45 -



- 42 -

complete the path to Charleston. Since 1974, there has been a development plan in existence for a "Sportsman's Recreation Area" on County Forest lands to provide for rifle and pistol shotting, archery, horseriding and motorcycle trails. This proposal is reported to be inactive now, and funding is no longer available, though the need for these facilities is presumably still not being met.

One remaining area of need is organizational; there is a need for more coordination of programs between the County and the individual cities. Each city appears to be pursuing its own separate objectives without regard for what other cities or the County are doing. Most of the cities because of their limited budgets lack professional staff specializing in recreation management. There is a lack of communication between the different governmental units.

One consequence is that worthwhile projects which might have gone ahead have been shelved because of a lack or resources to obtain the necessary funds or due to a change in priorities. An advantage of better coordination is that planning, grantsmanship, and even construction or maintenance resources can be pooled, and that overall priorities and objectives can be ordered to better reflect County-wide needs.

PORT FACILITIES

The Port of Coos Bay owns and manages a small boat basin at Charleston covering 22 acres, with a four lane boat ramp, pto-se-cut docking and servicing facilities for about 450 boats, a recreational vehicle and trailer park with 80 sites / extensive parking space and restaurant facilities. This is the most popular boating site in the County. Deep sea fishing trips, clamming and crabbing are also popular activities. Recent storms have eroded a sandbar which protected this facility, and there is an urgent need to replace the protection against storm surges to prevent further damage to boats. At the same time, the Port consideres that additional boat spaces are needed to take care of existing and future demand, and proposed to find a site for this development. The LCDC has recently upheld a goal exception prepared by the Coos Curry Council of Governments for the Port of Coos Bay to expand the present facility into adjoining tidal flats (under the "Hosie-Laird" plan). The Army Corps of Engineers is in the process of extending the existing rock jetty northward to replace the lost sandspit.

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-47-

Volume I Part 2 727

Should the Hosie-Laird plan for the Small Boat Basin expansion prove to be insufficient to meet demand, an alternate site in more protected waters away from the Bay entrance could also be considered. The Port of Bandon also has a small boat basin at Bandon, covering 5 acres, with space for a small number of boats, a boat ramp and a parking lot.

PRIVATE TIMBER COMPANIES

The three largest timber companies, Weyerhauser, Georgia-Pacific and Menasha have extensive holdings in Coos County, shown on Map R-14. In the past, they have been willing to allow some hunter. and angler access to their lands along recognized roads during non-working hours and provided active timber management operations are not occurring in the area. Policies differ slightly; Weyerhauser gate much of their tree farm outside of deer and elk hunting season, but open the gate during the season weekends. They also have some camping on the East Fork of the Millicoma and fishing along the Coos River around Dellwood, using their access roads. Nesika Park, traditionally a popular camping spot along the Millicoma River, Ale Precent close HE GUNTY to the public. Menasha has adopted the policy of neither Dellwood there is dispersed recreational use of their land for the sishing, bunting and eximple. encouraging nor actively discouraging public access. Above fishing, hunting and swimming. Georgia-Pacific mostly hold land east of Powers in the remote mountain areas. They provide hunters with maps of their land and roads, and encourage the multiple use concept. They also manage a popular park at China Flat Campground on the Coquille River south of Powers. It has 23 acres, with 8 picnic tables, 12 developed campsites, toilet and water facilities, a game area, swimming and fishing.

PRIVATE AND COMMERCIAL RECREATION FACILITIES

The County also has numerous commercial campgrounds, resorts and trailer parks. They are inventoried in Table R-23. It is possible that some of these have gone out of business, or that others have come into being since the last SCORP inventory in November of 1976. Subsequent updates of SCORP will allow this list to be revised. Note that there are five golf courses in the County (one full 18 hole and four 9 hole) and five gun clubs also.

Coos County currently has no private facility that would qualify as a "destination-resort". As noted on pages P-36, P-41, P-42 and in the paragraph titled "Destination Resort" in the following section, the lack of such a facility significantly inhibits Coos County's economic development as well as limiting its recreational opportunities.

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-48-

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RESOURCE BASED ACTIVITIES AND THEIR ECONOMIC IMPORTANCE TO THE COUNTY

TOURISM

Economic Benefits

As is evident from the discussion of State Park visits and revenue generated, tourism is important to the economy of Coos County, as it is to all the coastal counties. Highway 101 and the routes that feed into it, State Highways 42 and 38 in our area, are important tourist corridors which bring visitors in mainly from California and Washington, as well as from other parts of Oregon.

The economic importance is evident, but difficult to define in precise terms for a variety of reasons. The difficulty arises in any attempt to estimate how much income is generated in the County in a particular year by tourism. A standard technique is to use the U.S. Census of Business reports and total up earnings in each standard industrial classification (S.I.C.) covered by a particular industry. The difficulty is that tourist expenditures are divided among eleven separate SIC's, and in many of them, like retail stores or gas stations, only a fraction of total earnings can be attributed to tourism.

One economic principle holds good for tourism, however like agriculture or forestry, it is a "basic" industry. That is to say, it is a resource-based sector of the economy, the earnings from which (in theory) stay within the regional economy, and generate further earnings in other sectors of the economy (non-basic or service industries). 12 The income filters through the economy, and generates more income. This is referred to as the "economic multiplier" effect; through economic analysis, one can arrive at a factor called the "multiplier", which when applied to the actual direct earnings of the tourist trade (campground, motel receipts for instance) can give an estimate of the total effect of these earnings.

The best available index of the number of recreational visits to Coos County is the figures from the State Parks and Recreation Branch from 1958. (See Table R-24) Analysis shows

TABLE R-24

CAMPING AND RECREATIONAL VISITS TO STATE PARKS
IN COOS COUNTY: 1958-1973 (1000's)

EAR	CAMPING VISITS	PERCENT CHANGE	RECREATIONAL VISITS	PERCENT CHANGE
958	1		629	
1959	18		633	+ 0.6
1960	24	+33.3	731	+15.5
1961	30	+25.0	728	- 0.3
1962	33	+10.0	712	- 2.2
1963	42	+27.3	1117	+56.9
1964	48	+14.3	1346	+20.5
1965	54	+12.5	1413	+ 5.0
1966	57	+ 5.6	1379	- 2.4
1967	50	-12.3	1655	+20.0
1968	, 54	+ 8.0	1840	+11.2
1969	89	+64.8	1517	-17.6
1970	98	+10.0	1795	+18.3
1971	120	+22.5	1896	+ 5.6
1972	142	+18.3	1986	+ 4.8
1973	146	+ 2.8	2789	+40.4
	Average Annual Percent Change:	+17.1%	Average Annual Percent Change:	+11.

SOURCE: Economic Survey and Analysis of the Oregon Coastal Zone (OCCDC, 1974); from State Parks and Recreation Branch Data.

- 51-

—50 —

4.8-25

a general upward trend in visits from 1958, with camping increasing more rapidly than total recreational visits, indicating average annual increases of 17.1 percent and 11.8 percent respectively. The OCCDC Coastal Zone Economic study¹³ using a State Highway Division Out-of-State Tourist Revenue Study, shows that earnings from out-of-state tourism increased 10.3 percent a year on the average (or 6.8 percent allowing for inflation) between 1960-73, which is in line with the findings above. Out-of-state visitors are about 40 percent of all coastal travelers, but the proportion becomes greater further south; in Coos County perhaps 50 percent of tourist are from out-of-state. It is assumed that trends in visitation rates and expenditures by out-of-staters reflect those of in-state visitors also. Various estimates are available of average per capita expenditures by tourists:

	OUT-OF-STATE		<u>in-state</u>
Year	Per Day	Per Visit	Per Day
1971	\$12.00	\$40.81	
1973	\$10.87	\$47.00	

SOURCE: OCCDC Coastal Zone Economic Study, 1974

	OUT-OF-STATE	:_•*	<u>IN-STATE</u>
Year	Per Day	Per Visit	Per Day
1972	\$ 9.87		\$10.21

SOURCE: OCCDC, (1974), Based on OSU Study for State Highway Division, 1972.

More up-to-date estimates were cited in the State Parks section above for per-person expenditure related to camping and day use in State Parks (\$8.98 for day use and \$14.36 for camping). Estimates of total tourist revenues are similarly varied, based as they are on different studies using different sources and assumptions. An OSU study14

gives some figures for 1969 which are probably the most reliable and most recent estimates, since they include out-of-state, and in-state, inter-county figures. This study was based on State Highway Department traffic samples and surveys, and is reportedly subject to considerable error due to the sampling techniques used. Thus, these figures should only be viewed as approximations.

TOURIST EXPENDITURES IN COOS COUNTY BY OUT-OF-STATERS AND OREGONIANS (1969)

Out-of-state Tourists	Out-of-state Non-tourist (business, etc.)	In-state Inter- county	In-state Intra- county	TOTAL
\$7,502,611	\$800,307	\$9,267,002	\$4,136,998	\$21,706,910

SOURCE: An Economic Analysis Of Resource Allocation In The Oregon State Highway Division: Department of Economics, OSU, Corvallis. (1972)

Compare this with the earlier estimate that about \$22 Million was generated in 1976 by visitor to the main State Parks alone in Coos County. It must be clear that total income generated in the County from all recreational visits is considerably more than this figure. It is not possible to suggest an estimate from the data presently available, but it is clear that numbers of visitors to the County have increased since 1969.

Due to the "multiplier effect", the total benefits to the

County's economy will be greater than tourism revenue alone. Some tourist expenditures are reinvested in businesses in the County as new buildings or equipment (which yield benefits to the community indirectly) or are paid out as wages. Of course, some of the total income from tourism is offset by capital invested in parks or in roads, or other facilities which tourist use. The total effect is extremely complex, since of course much of the capital spent in support of tourism is not locally generated, but comes from State of Federal sources. The main point, however, is that tourism is an important source of income to the County.

- 52 -

Just to give an insight into the relative importance of the tourist industry in terms of revenue, earnings from agriculture, tourism and manufacturing were compared for 1967 by the Coos-Curry-Douglas Economic Improvement Association. 15 Their findings were as follows:

VALUE O	F AGRICULTURAL SALES	VALUE ADDED BY MANUFACTURING	TOURIST REVENUE
COOS COUNTY	\$7,720,000	\$79,800,000	\$11,045,000

At the time, tourist revenue was greater than that from agriculture in the County, and a significant fraction of that from manufacturing (13.8 percent). Tourism is probably still at least equal in importance to agriculture as a contributor to the County's economy.

Employment

In terms of the actual number of jobs wholly dependent on recreation in the County, the situation is different As might be expected, the number of tourism-related jobs does not adequately reflect its large amount of revenue. since so many business and jobs are partially supported by tourism like restaurants, garages, etc. Two other observations should be made; first, wages in tourism-related jobs are lower than average; second, employment is highly seasonal. The OCCDC Coastal Economic Study Team (1974) arrived at estimates of employment wholly dependent on tourism by County, based on an examination of the employment categories (SIC's) wholly or partly related to tourism; though for the coast as a whole, employment was increasing, the trend was not so marked in Coos County. The peak year (1958-1973) according to their estimate was 1966 (467 jobs), followed by a decline between 1967-1970. and a rise to close to previous levels (450) by 1973, (also a peak year for visits). Taking the 1973 figure (450) which is an annual average, the study team showed considerable seasonal fluctuation.

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	1st Quarter	. 250	··· <b>-</b>
	2nd Quarter	589	
	3rd Quarter	642	
	4th Quarter	31.9	
	AVERAGE	450	

These figures represent only 2.0 percent (average) and 2.7 percent (peak) of total employment in the County. However, recall that the number of jobs at least partially supported by tourism must be much higher. Another way of looking at tourist employment is to estimate the total payroll associated with it. The OSU study (1972) estimates that in 1969, 4.46 percent of total Coos County "covered payroll" (jobs covered by unemployment compensation) was associated with the tourist trade. Perhaps because of the overwhelming importance of the wood products industry, this percentage is much lower than for the other coastal counties. The OCCDC Study Team formed another estimate of employment by assuming that employment would be the same percentage of the total as the percentage of the total payroll. They came up with the figure of 627 jobs (compared to their own estimate for 1969 of 375). The actual figure will certainly be higher, because wages in tourist-related jobs are lower than average. There is a considerable disagreement between the two figures, but they do give us an idea of the range of possible numbers of jobs we are considering.

### Styles in Tourism

An additional important characteristic of the Oregon coastal tourist trade compared with tourism in other States, is that a larger percentage of visitors prefer camping in parks to motels. The OCCDC Study quoting a 1973 study by Battelle¹⁶ gives estimated distribution of visitor days by types of lodging.

**--** 55 **--**

- 54 -

	MOTEL/ HOTEL	FRIENDS	CAMPING	OTHER*	TOTAL
Coos/		•			
Curry	20.3%	9.6%	48.8%	21.3%	100%
Coast	35.5%	14.3%	40.8%	9.9%	100%
Statewide	43.8%	26.4%	17.3%	12.51	100%

*Trailer park, second home or no lodging

In Coos and Curry counties the proportion using hotels and motels is even smaller than for the coast as a whole. One obvious consequence is that people who prefer an outdoorstyle vacation inject less money into the economy and create less employment. This probably relects the preferences of the tourist who visits the South Coast, rather than suggesting that motel space is inadequate. Facilities here are much more outdoor oriented, and tend therefore to attract more of the camping-oriented tourist. It is doubtful whether the motel sector could persuade a larger share of the tourist market to use their facilities without appealing directly (through advertising) to those who prefer motel accommodations to come here in greater numbers.

### Destination Resort

The development of destination-type facilities to attract the long-stay (2 weeks) visitor would be a significant factor in generating more tourist-related income and jobs. Coos County has the natural beauty of the coast and fishing and boating opportunities to attract long-stay visitors to a destination resort. Off-season, such a facility could cater for conventions or other similar large groups. The coastal climate is always mild in winter and often sunny in spite of the reputation for heavy rains. During heavy storms, views of the ocean are especially impressive. This is also, of course, the prime season for river fishing for salmon and steelhead. It appears that there are considerable opportunities for stimulating tourism during the off-season provided the facilities are available and the market is accurately identified.

Other sections of the plan also identify both the need for and the benefits of the type of facilities common to destination resorts. For example, Appendix A of the Industrial and Commercial Lands Inventory is a verbatim inclusion of the Coos Curry Douglas Economic Improvements Association's (CCD-EIA) "Area Diversification Strategy", (Impediments Section). In this section, CCD-EIA notes that the lack of cultural and recreational amenities impedes the attraction of new industries to the area and thus inhibits the need for diversification of the County's economy. (See especially pages P-36, P-41, P-42 & P-43.)

Provision for such destination resorts could be made through a conditional use permit process as Recreational Planned Unit Developments. Substantial increases in the permitted number of "recreational" or "second-home" dwellings could be used as an incentive for the developer to provide recreational and cultural amenities such as convention centers, marinas, golf courses and other recreational uses.

Although a number of areas in the County may be suitable for such resorts, the most likely areas currently being considered are in the Joe Ney Slough and South Slough areas near Charleston, and along the coastal shoreland areas north and south of Bandon where extensive dune and coastal lake areas would provide significant recreational opportunities.

### Costs

Analysis so far has dealt with the benefits of tourism. However, these benefits also entail some costs in terms of congestion and pollution. State Highway Division traffic

4.8-28

counts show that traffic volumes in the peak month (August) can be twice those in the slackest month (December).

Figures for the Bandon (Hwy. 101) counter for 1972 are shown below:

JAN. FED. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

2915 2899 3788 3424 3707 4577 5387 5775 4469 3566 3608 2741

SOURCE: OCCDC (1974) from State Highway Division

This level of congestion can cause problems for commercial traffic. It is not feasible or desirable to provide highways capable of handling peak loads easily when this only occurs two months a year. A compromise has to be made between peak and minimum traffic levels, in reality.

Similarly, sewage facilities at parks may be overloaded at peak periods, because it is not feasible to provide facilities that are only used to the full for a brief period.

There are many other less tangible costs associated with peak tourist use, like air pollution and noise from automobiles, crowding on beaches or campsites, over-fishing of popular lakes or streams and so on. These costs show that tourism is not an unlimited resource; it has self-imposed limitations, in that as numbers reach a certain point, the quality of experience is less.

### Summary

It is very difficult to get accurate and up-to-date estimates on the tourist industry in Coos County. However, certain things are clear: it generates a great amount of revenue spread among many different types of business, though actual numbers directly employed by tourism are quite small. Also, wages are low and employment highly seasonal. Numbers of visitors appear to be increasing steadily, and should continue to do so, unless gasoline shortages become acute. State Parks appear to be very important destinations for tourist; the beauty of the coast, and opportunities for fishing and boating appear to be the main attractions. As with any resource—

based activity, a delicate balance exists between conserving these resources and utilizing them to generate revenue. While encouraging tourism, it is important to ensure that haphazard recreational development is not allowed to mar the beauty people have come to enjoy, and that our rivers and estuaries remain productive to attract the sport anglers.

### ANGLING

Angling is one of the most popular of outdoor pastime enjoyed by young and old alike. For some, angling is simply for relaxation, for others it is a dedication. Coos County offers a wide range of angling opportunities from its rivers and streams, estuaries, lakes and the ocean itself. (See Map R-25 and Table R-26). Fishing for salmon, (chinook and coho), steelhead and cutthroat trout, (all migrating or anadromous fish) generates the most enthusiasm. The Coquille River is considered among the finest salmon and steelhead streams in the State. 17 Deep sea fishing out of Coos Bay, Charleston or Bandon is also very popular and a big tourist attraction. The upper reaches of the river system also offer fine fishing for resident trout (rainbow or cutthroat), as do many of the lakes and reservoirs in the County. The brackish waters of the estuaries and tidal reaches support populations of striped bass and shad, which spend part of their life cycle in estuaries, where they spawn. Many of the freshwater lakes support warm water species, like large mouth bass, perch, crappies and bluegills. Though often spurned by serious fishermen as inferior to the true game fish they also afford good fishing and eating.

Fishing seasons are shown in the State Synopsis of Fishing Regulations released annually by the Oregon Department of Fish and Wildlife. Certain lakes, Bradley Lake, Clear Lake (dunes), Powers Pond, Saunders Lake, Empire Lakes, Eel Lake and Tenmile Lakes, have a year round open season for all species. Chinook salmon are present from about October through January for its annual spawning run. They are found principally in the Coquille and Coos River drainages. Coho salmon enters a little later (November) and is usually present until February. The preferred fishing method for these species is either offshore fishing or trolling from small boats on suitable sections of the rivers, though some bank fishing also occurs. Steelhead enter the

-- 58 --

4.8-29

--- 57 ---

rivers from November to December, and remain until May. Sea run cutthroat are taken in September/October as they enter the system. Striped bass fishing is best between July and October, and for shad in May/June. Fishing from boats and from the bank is popular for both species. Trout fishing is normally best during the late spring and early fall, when the water temperature is at optimum levels to promote heavy feeding. Streams and lakes throughout the County are stocked from State hatcheries prior to season opening, with both steelhead and resident trout.

### Habitat Requirements

The salmonid species (salmon, steelhead, cutthroat and resident trout) have exacting habitat requirements for successful spawning and rearing. The most important requirement for spawning is for clean gravel beds with water flowing over and through the spaces between the gravel at a suitable velocity to ensure stability of the bed. Only where water flows through the gravel will the oxygen supply be adequate for the developing embryos. Where silt clogs the spaces, successful spawning will not occur. High water quality is essential also through the following year as the fingerlings develop. A common problem during summer low flows is high water temperatures which has a double effect: it both increases the oxygen requirement of the fish, and reduces the oxygen concentration in the water. These effects, plus those of disease, competition and high biochemical oxygen demand (BOD) of organic matter entering the water, can cause high mortality among the developing fish. Considerable degredation has occurred through heavy siltation, usually due to road building or careless logging practices. Removal of chade has also led locally to rises in water temperatures / and has also contributed to log jame which impede or block the passage of migrating fish. The same applies to resident trout, which normally inhabit the upper reaches, and therefore, have lower flow requirements, and can tolerate somewhat higher water temperature. Log debris due to log handling and storage can also be a problem for both fish habitat and anglers themselves, and is especially prevalent on Isthmus Slough, Coos River and the lower Coguille.

Critically low flows and high water temperatures (over 70° F.) are a natural problem in the Coos and Coquille system, due to the pronounced summer drought season, and are normally worse in July-September, according to reports from extensive

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Timber harvest, in removing shade, has led locally to rises in water temperatures. Harvest has also contributed to log-jams which impede or block passage of migrating fish

ANGLER ACCESS POINTS: EXISTING AND POTENTIAL Unne, State Dapt. of Flak and ..... - Bank Accous Only - Beet Remp Access
- Heedwaters With Meny Access Points

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20. O	Abernethy	_	i owner	Off Dara Rd		7	"	10	Perchase	2	-	-	-	_	Good
žī. O	Braveter Conyun	-	~	Cook Boy Wegan Rd	Portial	-		30	Eutoments & Agreements		_	-	_		Cood
22. O	Comas Great -	-	~	Cose Bey Wegen Rd.	Parisas	-	=	50	Conservat				_		Sond
23. O	Mong Luck Boach	=	) owner	H#9. 42	Partial	-		10	Egreement &	1	-	-		_	Fair
24. C	The Reck	=		Heg 42	Partial	=	=	10	Europeat	10	<i>V</i>	"		_	Fair
13. C	McMullon Creek	=		Hay, 42 Selmen Cr. Re	Perfiel	1-	1-	10	Essemnas Perchana	7	-	7		=	Falc
26. C 27. O	Rock Querry	ड		Old Guerry Hd		-	É	3	Personal of Agreement	=	-	=	=	=	Fair
24.0	Study Creek	<del> </del>	-	Иот. 42	Perilel	-	1	15	Agreement	~			-	_	Good - Fer
24 0	Rompia		Lower	Mary. 42	Pertial	_	-	10	Perchase	~	-	~	=		Good - Feir
<u>10.0</u>	Rock Crosk Upper Middle Fork			Huy, 42 Huy, 42	Perijal Partial	É		15	Agraement Agraements,	-		-	=	Ι=-	Fair
31. 0				·		ļ <u> </u>	1_	10	Enterents in	<u> </u>	_	<u> </u>		ļ	Good
32 C	Readulard Hery, 42 Site	<del>-</del>		Augustard Re	None	-	<u> </u>	10	furchese (exemun)		-	<del>-</del>	=	=	East .
34.0	Hallman Waysids	ŏ		Nuy. 42	Partial	-	<u> </u>	10	Agreement			_			Good
33 C	Rhade Creat	_		Papers Rd. Demont Cr Rd	Nane		_	10	Parchese		-	=		=	Good
37. 0	2nd Railroad Bridge	1 5		Pomers Rd.	Partial	15	<del>  </del>	10	Purchase	<del></del>		<del></del>	=	<del>-</del>	Good
34. Q	Albert Fovers Momerial St. Park	<u> </u>	300000	Pavers Ad.	Heng	-		10	Agraomentu or Essementu	_			Ι=	_	Cond
31. Q	Myreta Ersea Stota Pork	0	-	Pauers R4	Paritol	~	_		Agramani		-	-	<del>  -</del>	_	Geed
	Kupail Hayes	=		Fowers Rd	Parriel		=	10	Essement	=	-	-		=	Caed
	Boter Creek Conces:	0		Bater Cr. Rd.		-	-	10	Fernana	=	20	~	_		Good
12.6	Pawers	=		Pewers Rd.		-		20	Edvemont /	-	-		=	<del>  =</del>	Good
44. 0	Orchard Hole		igues	Peners -	Partial	-	-	10	Parthuse Purthuse						5006
45 O		-		Agress Rd				40				-			0004
-3	Moper South Fort		<u>.                                    </u>	USFS Room	F 871141				Agreement						Gase

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			ANGL	ER ACCI	SS POI	NTS -	EXIS	TING	AND POT	ENTI	L				
					CD	OS RIV	ER ST	STEM							
		0	ohip	Band	Steas	710	pered	Improve		Ī		ishing			Baler
24.	Hems	Pasile	Private	Actors	of Devoles.	Bost Ramp	Tailets	Speces	Access Agreements	Salman	Soutes Traul	Nat. Trout	Water	Olber	Guetty
44.4	Shingtoness Sleep	*		Off Hey, IQI	Complete	_	T	_		<u> </u>		1		Bass	Patr
47. Q	West House Hole		3	County Rd.	Hene			10	Emement			_	_	8441	Breckleh
44.0	Deniols Creek	-	2 0-00-	County Rd.	Hens	_	"	20	Emperat	1		1-	_	Bess	Brecklen
49. O	Myrtie Tree Heis	. C.		County Rd.		سد ا	1=	L		1	-			8444	Beschish
30 C	Byll Parture	-	Lounar	Covery Re.			$\perp =$	10	Loughant	<u> </u>	-	=		Bess	Bruchtch
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		<u> </u>		Makerpaner		- ما	1 400	23	Estents)	L=		<del>↓ =</del>	<u> </u>	Base	fair
63. Q		_	I seemer	Wayer kanser		_	I	-		-	-	-		Bass	Fait
84.Q	Tree & Steellerd Area	-	2		Hent	_		ᄕ				_	<u> </u>	_	5444
**	Millicome Seet Ramp			Grevet Md.	Compiete	_	二	二		<u> </u>		<u> </u>		Shed.	Bracket
"A	Rack Commy (Dare's Plecs)			Seete Noy 24	1 .	_	<u> </u>			1-	Ι		<u> </u>	Sauc	Brocklon
544	Asoko Higgans	0	<u> </u>	Stero Hury, 141			1-	23		-			_	5746	Brechish
97 O	Allegeny Allegeny Sridge	<del>  -</del>	2 2	Private Hwy, 241	Heas	_	<u> </u>	23	Estament Estament		1		1=	3×05.	Feir
39. O	Steam Hause	- ≕	30		Hons			10	Lasanest	<u> </u>	-	-	<del>  -</del>		Good
50. O	Siri Scout Comp		-	Causty R4.	Comelete	-	+=	<del> </del>	20-0001	<del> </del>	-	+=	<del>  -</del>		6004
4 17	LAWER 20 Miles		Maay	County Re.		=	+ <del>=</del>	30	Comment	+=			-	=	Cord.
42. O	Millicome Wayside	18		Grave R4.	Complete	-	<del>  =</del>	20		+=-	-	-	-	-	Escalian)
12.0	Galden & Selver Falls	Š	_	Gravel Mic.	Complete	<del>-</del>	1=	1=	=	-	_	-	<del>  = </del>	=	Good
64. 0	Horth Side Road		2	Private Rd.	Head	-	1	30	Keesmont	<del>, _</del>	-	نسد		_	Good
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			ANGL	ER ACCI					G AND	POTEN	ITIAI			_	
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65. <b>O</b>	Bundon State Park	0	T =	Pered	Beeck ecces re	-	1 —	<b>—</b>	-		-	-	=	<del> </del> -	6000
44.0	Beates (11 th St.)	+	-	Pered	Parking B	-	-		_	1		=	-	Ι_	Good
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	Buffords Beach	Ö		Pared	Complete	_					-			<del></del>	God
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70. O	Marchant's Seath	0	1 0-1045	Please	Henn	_	-	20	Essement or	-	2		-	=	Ga ad
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73. 0	Shera Acres Empres Reel	٥	_	Pared	Campista	_	-	_	_	_	~	1	4	_	Geed
74. O	Speed Bay	<b>\Q</b>	<u> </u>	Pared	Complete	_						_			<u> </u>
73. O	Musele Beach		Heay	Hone	Teull galy	-		~	Parchase right-of may	=-	-	=	_	Smell	Cood
<b>16</b> O	Boulendorff South	O		Scovel	Complete	-	_			-	-	<del>-</del>			
	Coas Heaf	Φ		Paved	Complete		$\equiv$				<del></del>			-	Good
φ.	Charlesten smell best besin	C1.	_	Pered	Complete			-	=-	1		-	-	-	Good
¥	Menson's Boot Landrag	1	1 4	Pares Graval	Compieta		-	-1		-	-	-			Soul
•	Empire Boot Remp	+	_	Servel	Romp & Parking Lt.	_	-	30		-		-	_		feli
٠.	North Sand Bost Ramp	+	-	674725	Grevel ramp		-	-			<del></del> -f		-	les.	Page
2.	Airpert Book Romp	+	_	Gravel	Complete	-				En	<del>-  </del>				fair
3.🕰	McCollough Way-	<b>◇</b>		Pered	Pertial		-	-			<del>_</del>				Fair
4. 0	Hersefell Bouch	~	=	Pored	Porting &	_	-	-1			<u>س</u> ا	<del>_</del>	_		Cons
3. 0	Toumile Creek Beack access	01	-	Privota	Private (and picches	=	-				<del>-</del> +	-	_		Face

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Volume I Part 2

-62-

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monitoring by the State Department of Fish and Wildlife.18 They report that a total of 226 streams in Coos County's main system (31 Tenmile Lakes system, 91 in Coos River's system, 114 in Coquille River system) plus several coastal streams are used for spawning by salmonids. It is most important for the future productivity of this vital recreational (and commercial) resource that these streams be conserved, and protected in every possible way from the impacts of development (particularly sedimentation). The study states that parts of the Coquille and Coos systems are naturally deficient in good spawning gravel, while the Tenmile system streams have good gravel. Also, the former practice of "splash damming" for log-transport has scoured away gravel deposits on the Coquille (East Middle Fork), Millicoma (East Fork) and Coos River (South Fork).

The State has adopted recommended minimum and optimum flow requirements for fish life on the streams of Coos County, and also recommended that the following rivers be closed to further gravel removal:

Tenmile Lake streams

Coos River - all streams above tidwater

Coquille River - Middle Fork - all streams

Coquille River - North Fork - all streams

Coquille River - East Fork - all streams

# Angling Facilities and Access

Table R-26 summarizes the State Department of Fish and Wildlife "Master Plan For Angler Access and Associated Recreational Uses". A number of boat launch ramps are available, most of them in the tidal reaches. Many are maintained as County Parks. The report identifies a large number of sites that need boat launch facilities to enable drift boats to use all the suitable sections of river without tresspassing on private land. In addition, there is a need for roadside parking and access agreements across private land for bank anglers. Certain high priority projects have been identified: at Myrtle Tree on Coos River a new ramp will be constructed in summer of 1980; the Dellwood area needs

-64~

4.8-32

a ramp to allow anglers access to this section of upper tidewater on the South Coos. The Allegany area of the Millicoma needs a put-in point for access to the upper tidewater.

The State is working on a bank access agreement on the South Fork of the Coquille River at Baker Creek; at Kermit Hayes, nearby, there is already a pole skid, but this could be upgraded to a concrete ramp when the State Highway Department puts in a new bridge on the Powers Road. Activity is continuing gradually as funds are available and landowners show willingness to negotiate access agreements or easements. The BLM is also negotiating with the land-owners for access to the New River area. The City of Coos Bay reportedly sees the improvement of the Empire Boat Ramp as a high priority.

In Oregon, the State is owner of all waterways below the bankfull stage, except in the case of non-navigable streams (by any size of boat) where property rights include the bed. Thus, a boat angler may fish any stream that will take a boat, but will need permission to get into or out of the water if no public access is available. Bank anglers will always need permission unless it is possible to walk along the riverbed during periods of low flow. Landowners may use "reasonable force" to eject trespassers.

### Sport Fishing Activities in Coos Bay20

[The following section is quoted directly from "Coos Bay Estuary: A Study in Resource Use", Gaumer, Demory and Osis, (1973)]

"During the 1971 study of Coos Bay, 6,497 boat, shore tideflat, and scuba resource user interviews were obtained to estimate catch and effort values and angler origin. The values presented in the tables are estimates and have been rounded off when used in the text. (See Tables R-27 and R-28 for summaries of angler effort and catches of different species.)" TABLE R-27 SUMMARY
UMBERS OF ANGLER THIPS, BOURS OF EFFORT, AND SPECIES CAUGHT
COS BAX, DY HONDE AND THE HOTSO
KARCH I TREADER CYTORIE 11, 1971

Month         Taylogues         Paintain         Craba         Class         IMAGE           Roat         Harch         523         1,764         270         2,433         0         0           April         780         2,474         445         3,736         0         0         0           Hay         1,625         5,180         3,287         0,339         0         0         0           July         2,487         8,281         1,779         4,319         0         0         0           August         2,482         8,281         1,070         6,631         0         0         0           August         1,534         4,239         4,339         0         0         0         0           September         1,534         4,230         4,339         0         0         0         0         0           Getober         1,534         4,230         4,39         3,447         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <t< th=""><th>•</th><th></th><th>1</th><th></th><th></th><th>Catch</th><th>1</th><th></th><th></th></t<>	•		1			Catch	1		
March         585         1,764         270         2,343         0           April         780         2,474         445         3,176         0           Hay         1,625         5,180         3,287         5,227         0           June         1,437         3,611         1,779         4,319         0           July         2,352         5,800         660         0,239         0           August         2,482         8,231         1,070         6,651         0           August         7,429         498         3,647         0           October         7,234         4,230         498         3,647         0           March         7,420         498         3,647         0         0           October         7,234         4,230         4,99         3,647         0           Morth         1,467         1,67         1,574         0         0           April         2,603         6,30         1,520         0         0           April         2,603         6,30         1,679         0         0           Auly         6,786         1,593         1,729		Month	Tripe	Hours	Fincish	Crabs	Class	Mao. Invert	Total
April         780         2,474         445         3,786         0           May         1,625         5,180         3,287         5,237         0           Juns         1,437         3,611         1,779         4,319         0           July         2,352         5,800         680         8,239         0           August         2,482         8,231         1,070         6,631         0           Gepteabler         1,534         4,290         498         3,447         0           October         7,22         1,672         1,574         0           Marchl         2,670         7,088         1,374         0           April         2,690         7,088         1,250         0           April         2,603         6,030         1,579         0           Abuna         5,411         12,339         6,030         1,579         0           Abuna         5,963         14,236         1,239         1,779         0           Abuna         5,963         1,497         3,533         0           Abuna         5,963         1,437         3,533         0           Abuna <t< td=""><td>Boat</td><td>March</td><td>525</td><td>1,764</td><td>270</td><td>2,343</td><td></td><td></td><td>2.613</td></t<>	Boat	March	525	1,764	270	2,343			2.613
Hay         1,625         5,180         3,287         5,537         0           July         1,457         3,611         1,779         4,319         0           July         2,352         5,800         680         8,239         0           August         2,482         8,231         1,070         6,631         0           Geptember         1,534         4,230         498         3,647         0           October         7,22         1,677         166         1,574         0           Horch         2,970         7,088         1,397         36,236         0           Har         2,670         7,088         1,392         7,11         0           April         2,603         6,030         1,569         0           Juna         5,963         14,236         1,373         0           July         6,786         2,809         1,773         0           July         6,786         1,239         1,773         0           July         6,786         1,824         2,273         0           August         9,373         23,047         4,477         3,533         0           Got		Apríl	780	2,474	445	3,776	•	0	4.221
June 1,457 3,611 1,779 4,319 0  July 2,352 5,000 680 8,239 0  August 2,482 8,231 1,070 6,631 0  October 742 1,467 168 1,574 0  Harch 2,970 7,088 1,392 7,11 0  April 2,603 6,030 1,569 0  Hay 5,411 12,359 6,030 1,679 0  June 5,963 14,236 1,993 1,729 0  June 5,963 14,236 1,993 1,729 0  August 9,373 2,3947 6,497 3,633 0  Gotober 1,332 2,792 700 1,69		Hey	1,625	5,180	3,287	5,527	٥		
July         2,522         5,800         680         6,259         0           August         2,482         0,251         1,070         6,631         0           Geptember         1,534         4,290         498         3,447         0           October         742         1,467         186         1,574         0           Morch         1,157         32,287         8,137         36,286         0           March         2,970         7,088         1,392         711         0           April         2,870         7,088         1,260         0         0           Hsy         5,411         12,359         6,030         1,569         0           Juna         5,963         14,236         1,789         0         0           July         6,784         1,834         2,735         0           August         9,313         1,324         1,770         0           September         2,630         5,976         1,833         0           Gotober         1,332         2,792         700         746         0           TOTAL         37,024         41,200         13,733         0 <t< td=""><td></td><td>June</td><td>1,457</td><td>3,611</td><td>1,779</td><td>4,319</td><td>•</td><td>0</td><td>160'4</td></t<>		June	1,457	3,611	1,779	4,319	•	0	160'4
August         2,482         8,251         1,070         6,651         0           September         1,534         4,290         498         3,647         0           October         742         1,467         166         1,574         0           YOTAL         11,557         32,837         8,137         36,296         0           Harch         2,970         7,088         1,392         711         0           April         2,603         6,390         1,760         0           Hay         3,411         12,359         6,030         1,679         0           Juna         5,963         14,236         11,993         1,779         0           Juna         5,963         14,236         1,824         2,735         0           August         9,373         23,047         6,497         3,633         0           August         2,630         2,976         1,770         0           Gotober         1,332         2,792         700         746         0           TOTAL         37,092         41,200         13,733         0         0		July	2,352	5,800	680	8,259	٥	•	6.93
September         1,534         4,290         499         3,647         0           October         742         1,467         166         1,574         0           YOTAL         11,557         32,837         8,137         36,296         0           Harch         2,970         7,088         1,392         711         0           April         2,603         6,390         1,760         0           Hay         3,411         12,359         6,030         1,679         0           Juna         3,963         14,236         11,993         1,779         0           July         6,786         7,824         2,773         0           Abgust         9,375         1,539         1,770         0           Beptember         2,630         5,976         1,639         1,770         0           Gotober         1,332         2,792         700         746         0           TOTAL         37,092         41,200         13,733         0         0		August	2,482	6,251	1.070	15979	٥	۰	7.721
October         742         1,467         158         1,574         0           TOTAL         11,557         32,837         8,137         36,296         0           Harch         2,970         7,088         1,392         711         0           April         2,603         6,360         2,999         1,760         0           Hay         3,411         12,359         6,030         1,679         0           Juna         3,963         14,236         11,993         1,779         0           July         6,784         1,824         2,173         0           August         9,373         23,047         6,497         3,623         0           September         2,630         5,976         1,639         1,770         0           October         1,332         2,792         700         746         0           TOTAL         37,092         41,200         13,793         0         0		September	1,534	4,290	867	3,047	0	٥	4.34
TOTAL         11,557         32,837         0,137         36,296         0           Harch         2,970         7,088         1,392         711         0           April         2,603         6,360         2,999         1,760         0           Hay         5,411         12,359         6,039         1,679         0           Juna         3,963         14,236         11,993         1,779         0           July         6,784         1,359         1,779         0           Abgust         9,373         23,047         6,497         3,523         0           Beptembar         2,630         5,976         1,659         1,770         0           October         1,332         2,792         700         746         0           TOTAL         37,092         41,200         13,793         0         0		October	742	1,467	168	1,574	•	· c	1.742
March         2,970         7,088         1,392         711         0           April         2,603         -6,360         2,909         1,760         0           Hay         5,411         12,359         6,030         1,679         0           Juna         5,963         14,236         11,993         1,729         0           July         6,788         15,996         7,824         2,773         0           August         9,373         ,23,047         0,497         3,823         0           September         2,630         5,976         1,833         1,770         0           TOTAL         37,092         700         746         0           TOTAL         37,092         41,200         13,793         0		TOTAL	11,557	32,837	1,197	36,296	٥	• •	44,493
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5,411 12,359 6,030 1,679 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		April	2,603	096'9 .	2,909	1,260	0	•	4.114
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6,788 15,896 7,824 2,273 0 9,373 ,23,047 8,497 3,623 0 2,630 5,976 1,839 1,770 0 1,332 2,792 700 746 0 37,092 87,754 41,200 13,793 0		June	5,983	14,236	11,993	. 1,729	۰	2,251	15.973
P.373 .25,047 0,497 3,623 0 0 1.855 1,835 1,770 0 0 1.332 2,792 700 746 0 37,092 87,754 41,200 13,793 0		July	6,760	15,896	7,824	2,275			10.09
ir 2,630 5,976 1,835 1,770 0 1,132 2,792 700 746 0 37,092 87,754 41,200 13,793 0		August	9,375	.23,047	6,497	3,623	٥		
1,332 2,792 700 746 0 37,092 87,734 41,200 13,793 0		September	2,630	5,976	1,655	1,770		• •	
37,092 87,754 41,200 13,793 0		October	1,332	2,792	700	346		<b>,</b>	Crair
•		TOTAL	37,092	#7,754	41,200	13,793		11,096	65.99

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**-66**-

TABLE R-27 GUMHARY (continued)

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	Month	Ho, Angler Trips	Angler Bours	Fintish	Crabs	Clams	Invert	Total	
Tideflat	March	996	910	•	30	8,200	790	9,0201	
	Apr 11	2, 160	3,284	٥	110	31,200	3,040	34, 350	
	Hay	2,940	4,983		150	42,400	4,120	46,670	
	June	3,963	6,192	•	200	57,100	5,350	62,850	
	July	4,823	7,732		240	69,100	6,710	76,050	
	August	4,086	7,047	٥	200	34,900	5,720	64,820	
	Saptember	584	926	o	90	6,400	820	9,250	
	October	158	. 259	0	10	2,300	220	2,530	
	TOTAL	19, 286	31, 383	0	976	277,600	26,970	305,340	
Combined	Hardb	4,121	9,782	1,662	3,084	8,200	9,545	22,491 -	
-	April	5,531	12,118	3,354	5,146	31,200	3,040	42,740	·
	Мау	9,976	22,522	1, 1,1	7,356	42,400	1,120	63,193	
a .	- June	11,403	24,039	13,772	6,248	57,100	7,801	84,921	
; !	July	13,961	29, 428	8,504	10,174	69, 100	6,710	95,088	
	August	15,943	38,345	9,567	10,474	58,900	5,720	84,561	
	Beptember	4,748	11,122	2,353	5,647	0,400	620	17,220	
	October	2,232	4,518	868	2,330	1,300	320	5,718	
Grand Total		67,935	151,974	19,197	51,059	277,600	37,976	416,032	
SOURCE: Cause	IE, Demory and Gais,	SOURCE: Gauser, Demory and Geis, "Coos Bay Estuary: A Study in Resource Des",	A Btudy 1	'n Resource Use'.	(1973)				

		•			Catch		
Station	No. Angler Trips	Angler	Finfish	Crabs	Clams	Hisc. Invert.	Catch
B-1	1,807	.5,229	738	167	•	0	905
B-2	504	1, 1,256	1,473	23	•		1,498
B-3	9,246	. 26,352	5,986	36, 164	•	0	42,090
TOTAL	11,557	32,837	. 8,197	36,296	o	Ö	44, 493
8-1	5,836	13,469	4,706	88	•	157	4,952
B-2	16,988	40,726	12,330	9,301		10,849	32,480
8-3	9.087	21,415	11,050	4,208	0	0	15,250
8-4	924	2,218	2,134			•	2,134
8-5	2,365	5, 488	7, 576	106	Ģ	o	7,682
-49 153	1,499	3,512	2,219	68	•	0	2,308
5-1	. 264	\$3	903	•	•	o	903
<b>*</b> 15	189	472	282	0	•		182
TOTAL	37,092	17,734	41,260	13,793	•	300'11	62,999
. I-1	1.974	1,603	•	32	19, 633	32	19, 897
1-2	1,233	3,656	0	#	27,623	3,892	31,726
T-3	1,043	101,1	•		15,408	667	16,075
ī	. 156	264	•	•	1,089	Ó	1,069
25	1,217	1,983	•	. 18	15,596	1,240	16,860
1-6	5,991	9,674	•	943	75,470	2,053	78,466
	-		[Continued next page]	ext page]			

4.8-34

-68**-**

R-29
PRINCIPAL BOAT FISHING AREAS
IN COOS BAY, 1971

Source: Coos Bay Estuary, a Study In Resource Use. Fish Commission of Oregon , (1973)

•	
Salmon South JETTY CHARLESTOR JO NET SLOUGH	COALBANK SLOVEN  EGEND  - Principal Boat Fishing Areas, 1971  Crob (January - December) Salman (June - October) Perch (April - August) Rockfish (April - September) Stripped Bass (April - June)
	Shad ( April - June )

TABLE R-28 (continued)

				j	Catch		
Station Number	No. Angler Trips	Angler Hours	Finfish	Crabs	Clems	Hise. Invert.	Total
7.	5,346	8,713	٥	20	79,495	2,045	81,560
7.	1,005	1,651		•	6,335	9,156	15,491
ĩ	171	27.9	•	•	٥	928	928
1-10	7.6	155		۰	2,330	2,330	4,66
11-1	793	1,288	0		24,866	4,636	29,502
1-12	. 104	160	0	•	9,287		9,287
27	156	256	0	۰		•	
TOTAL	19,286	31,363	w	1,024	277,532	26,979	305,541
GRAND	67,935	151,974	49,403	51,113	265,772	37,913	416,033

<del>--</del>69 --

4.8-35

Volume I Part 2

--70 --

751

"Boat Fishery. Map R-29 shows the principal boat fishing areas of Coos Bay. Both sport and commercial boat fishing areas are combined on the map. Principal species of fish and shellfish caught and peak periods of fishing activity are outlined."

*An estimated 11,500 boat angler trips were expended on Coos Bay (Table R-30). Of this total, 80 percent occurred on the lower bay. Boat anglers spent 32,800 hours fishing. The peak month of activity was August."

"Twenty-two species of fish and two species of crab were identified in the angler catch (see Table R-31). Dungeness crab, black rockfish, red rock crab, and redtail surfperch were the principal species taken and accounted for 95 percent of the total number of species caught. The lower bay was the principal area of catch, providing 42,100 species or 95 percent of the harvest. The major catches occurred during the months of May through August."

*Shore Fishery. Interview data revealed that 37,100 shore angler trips were expended on Coos Bay. The Charleston waterfront was the principal fishing area; 46 percent of the anglers fished there. Shore anglers spent 87,800 hours fishing."

"Twenty-seven species of fish, two species of crabs, and two species of other invertebrates were identified in the shore angler's catch. (See Table R-31). Shiner perch, Pacific staghorn culpin, tube worms, and red rock crab were the principal species taken, accounting for 58 percent of the total number of species caught. The peak catch occurred during the month of June."

"Tideflat Fishery. Map R-32 shows the distribution of bay clams in Coos Bay. Several species of clams, including gaper, cockle, littleneck, piddock, and butter clams are found in the intertidal and subtidal zones of the lower bay and lower portion of South Slough. Softshell, bentnose, and tellina clams are found scattered throughout the upper portions of Coos Bay to river mile 15. Principal areas of digging are outlined on the map."

-71-

*About 19,300 tideflat user trips were expended to harvest clams, miscellaneous invertebrates, and fishes from Coos Bay. Of this total 92 percent were clam digger trips. Tideflat users spent 31,400 hours collecting marine animals. The peak month of activity was July. The major digging effort (31 percent) was expended in the Pigeon Point area where 6.000 tideflat users spent 9,700 hours collecting tideflat species."

TABLE R-30 NUMBER OF BOAT ANGLER TRIPS BY MONTH AND AREA, COOS BAY MARCH 1 THROUGH OCTOBER 31, 1971

	Boat Fishing A				
	Below Coos Head	South Slough	Lower Bay		
Month	B-1	B-2	B-3	Total	Percentage
March	56	23	506	585	5.1
April	36	25	729	780	6.8
May	<b>27</b> .	91	1,507	1,625	14.1
June	159	73	1,225	1,457	12.6
July	· 399	40	1,913	2,352	20.4
August	777	19	1,686	2,482	- 21.5
September	47	93	1,141	1,534	13.3
October	53	150	539	742	6.4
TOTAL	1,807	504	9,246	11,557	100.2
PERCENTAGE	15.6	4.4	80.0	-100.0	,

Gaumer, Demory & Osis, "Coos Bay Estuary: A Study In Resource Use. * (1973)

- 72 -

R-32 CLAM BEDS COOS BAY AREA

Source: Cook Boy Estuary: A Study In Resource Use, Fig Commission of Oregon (1973).

-74 -

4.8-37

Volume I Part 2 755

Gaumer, Demory & Gais, "Coos Bay Estuary: A Study In Resource Use". (1973) Gaumer, Demory & Gais, "Coquille Miver Estuary: A Study in Resource Use". (1973)

PABLE R-31 LIST OF SPECIES MAY COGNIZED BY REPUBLIE ESTABLISHED BY ROUTLIE ESTABLE COS BY ROUTLIE ESTABLES ENTRE MAYCH 1 THROUGH OCTOBER 31, 1971

"Seven species of clams and 10 species of miscellaneous invertebrates and fishes were harvested by tideflat users. Gaper clam (called Empire Clam in Coos Bay), cockle, butter, and softshell clams were the principal species collected, accounting for 94 percent of the total number of clams dug. The North Spit was the principal area of catch providing 81,600 species or 27 percent of the harvest. Of this total 79,500 or 98 percent were clams."

Scuba Fishery. The small number of scuba divers interviewed on Coos Bay precluded making an estimate of catch and effort for this fishery."

"Angler Origin. Over half (52 percent) of the anglers interviewed were Coos County residents, as shown below."

	Angler Origin	<u> </u>
County	State	Non-State
12,172	5,233	1,881
6,551	4,253	753
16,638	13,616	6,838
35,361	23,102	9,472
52.1	34.0	13.9
	12,172 6,551 16,638 35,361	12,172 5,233 6,551 4,253 16,638 13,616 35,361 23,102

SOURCE: Gaumer, Demory & Osis, "Coos Bay Estuary: A Study In Resource Use." (1973)

"This is a high proportion compared to findings in other bays and probably due to the large number of people living within easy driving distance of the estuary. Also, 34 percent of the resource users were State residents from outside Coos County and 14 percent were nonresidents."

"Combined Recreational Fisheries. Analysis of Coos Bay data revealed that 67,900 resource user trips (11,500 boat, 37,100 shore, and 19,300 tideflat) were expended in the estuary during the study (Table R-27). Approximately 52 percent of the resource users for the three fisheries were

from Coos County. The 67,900 user trips represent 152,000 hours of effort (32,800 boat, 87,800 shore, and 31,400 tide-flat). The peak month of activity was August for the boat and shore fishery, and July for the tideflat fishery (Table R-27). Combining all fisheries, (Table R-27) shows that August is the peak month of activity. Areas receiving the principal use for boat, shore, and tideflat fishery were lower by (80 percent), Charleston waterfront (46 percent), and Pigeon Point (31 percent), respectively.

*Anglers of the three fisheries harvested 416,000 marine animals (277,500 clams, 51,100 crabs, 49,400 fish, and 38,000 miscellaneous invertebrates). Crabs comprised 82 percent of the boat anglers total catch. Dungeness crab was the principal species caught. Finfish were the principal marine animals harvested by shore anglers and represented 62 percent of the total take. Shiner perch was the principal species of fish caught. Clams comprised 91 percent of the tideflat users total take. Gaper clam was the principal species of clam dug making up 35 percent of the harvest. Cockle clam. the second most important clam harvested, made up 18 percent of the take. Ghost shrimp was the principal species of miscellaneous invertebrates collected by the tideflat users. Comparing the catch for all three fisheries revealed that tideflat users harvested 305,500 or 73 percent of the total species taken. Peak month of catch was July for the boat and tideflat fishery and June for the shore fishery. Combining all fisheries, July was the principal month of catch."

# Sport Fishing Activities in Coquille River Estuary

"During the 1971 study of the Coquille, 1,809 boat, shore, tideflat, and scuba resource user interview were obtained to estimate catch and effort values and angler origin. The values presented in the tables are estimates and have been rounded off when used in the text. See Tables R-33 and R-34 for Summaries of angler effort and catches of different species."

"Boat Fishery. Map R-35 shows the principal boat fishing areas of the Coquille River Estuary. Both sport and commercial boat fishing areas are combined on the map. Principal species of fish and shellfish caught and peak periods of fishing activity are outlined."

-75-

"An estimated 1,800 boat angler trips were expended on the estuary (Table R-36). The boat anglers spent 5,000 hours fishing. Peak activity was in August.

"Five species of fish and one species of crab were identified in the boat anglers' catch. Dungeness crab was the principal species taken and accounted for 91% of the total number of species taken. The major catches occurred from June through August. Fishing success (catch per hour) was highest during June."

"Shore Fishery. Interview data revealed that 11,700 shore angler trips were expended on the Coquille River Estuary. The city docks and the north jetty were the principal fishing areas; 69% of the anglers fished there. Shore anglers spent 25,100 hours fishing. July was the peak month of activity."

Twenty species of fish and two species of crabs were identified in the shore angler's catch (See Table R-31). Surf smelt and redtail surfperch were the principal species taken, accounting for 85% of the total number of species caught. Catch and fishing success were highest in July when surf smelt entered the estuary."

*Tideflat Fishery. Map R-37 shows the distribution of bay clams in the Coquille River Estuary. Gaper clams are found in the intertidal and subtidal zones of the lower bay. Softshell clams are found scattered throughout the lower bay up to the Highway 101 bridge. The principal area of digging is outlined in Map R-37."

"About 170 tideflat user trips were expended to harvest clams and mussels from the estuary. Tideflat users spent 200 hours collecting these animals. Peak activity was in March. The major digging effort (49 percent) was in the treatment plant area where 82 user trips, representing 95 user hours, were expended."

"Two species of clams and one species of mussel were harvested by tideflat users (See Table R-31). Softshell clams accounted for over 99 percent of the species dug. The treatment plant area was the principal area of catch, providing 1,400 clams or 54 percent of the harvest." HARR OF ANGLER TRIES, HOUSS OF EFFORT, AND SPECIES CAUGHT COQUILLE RIVER BETWAY MARCH I THROUGH OCTOBER 31, 1971

	No.	No. Angler	Angler		3	Catch		
	month	Tripe	Rours	71.0	1		HISO.	
Boat	March	0 4			2000	Cleas	Invert.	Total
	April	.;	• er [	<b>&gt;</b> 1	6	•		
•	Hay	91	334	٠ ;	~	•		
	June	224	<b>.</b>	27 1	~	0		16
	July	159	<del>(</del> 42	e (	672	•	•	
	August	799	2,146	° (	D65 .	•	•	590
	Saptember	438	1,083		899	0	۰	731
	October	123		* .	. 25.	٥	۰	317
	TOTAL	1,755	4,992	234	176		•	183
Shore	March		į				•	2,597
٠	April	ę :	324	•	0	0	۰	
		Ē	968	972	•	٥	c	<b>'</b> :
	Ž nu	76	1,988	2,635	9.	•	•	=
	June	2,824	6,079	7.218	;	<b>&gt;</b>	•	2,663
	July	4,105	8,702		•	•	۰	7, 380
	August	2,304	4.974			•	•	48,806
	September	(6)		1,691	711	•	•	2,008
	October	267		450	77	0	0	432
	TOTAL	11,731	24 108	9	111	0	•	191
			704474	61,776	3	•	•	,

<del>-- 77 --</del>

4.8-39

Volume I Part 2

759

TABLE R-33 SUMMARY (continued)

Liehery	Honth	No. Angler Trips	Angler Nour	Plan	Crabs	Clams	Misc. Invert.	Total
Tideflat	Haroh	4	3	•		367	0	367
	April	11	13	•	•	266	1	273
	Нау	36	10	•	•	467	•	467
	June	. 06	\$	•	0	397	۰	397
	July	5	7.5	•		1,125	ъ	1,125
	August		•	٥	•	•	•	•
	September	۰	0	•	•	٥	,o	•
	October	•	·.	•	•	•	0	•
	TOTAL	169	ш	æ		2,622	1	2,629
Combined	Heroh	193	386	•	0	367	۰	367
•	April	531	1,119	979	•	366	7	1,261
	Мау	1,051	2,222	2,647	33	167	•	3,146
	June	3,078	6,633	7,297	134	197	0	8,528
	July	4,309	9,219	48,780	919	1,125	•	50,521
	August "	2,968	7,120	1,754	988	•	•	2,739
	September	1,135	2,574	987	263	•		149
	October	390	1,033	67	307	0	•	374
Grand Total		13,655	30, 308	62,010	3,046	2,622	^	67,685

B: Gaumer, Demory & Omis, "Coquille River Returny: A Study in Resource Des". [1973]

NUMBER OF ANGLER PREPS, HOUSE OF EFFORT, AND SPECIES CAUGHT COULLINE RIVER SETURAT, WE SERVING METATION

Station         No. Anglar         Anglar         Anglar           Number         1,755         4,392           P.J.         1,755         4,392           TOTAL         1,755         6,843           S-2         4,129         8,026           S-3         388         837           S-4         4,017         8,599           TOTAL         11,731         25,105           T-1         29         23           T-2         82         95           T-3         38         93	rish				
1,755 1,755 3,127 4,129 388 4,617 11,731 29 82		Crabs	Clans	Invert,	Total
1,755 3,127 4,129 388 4,017 11,731 29 82	234	2,363	٥	0	2,597
3,197 4,129 288 4,017 11,731 29 82	234	2,363	•		2,597
4,129 388 4,017 11,731 29 82 82	6,797	•	ø	₽,	6,797
388 4,017 11,731 29 82 82 88	46,598	149	•	٥	47,272
4,017 11,731 29 82 82	74	. •	٥	٥	7.4
11,731 29 82 38	8,307	•	۰	¢	\$,316
2.8.2.3.8.2.9.1	61,776	683	0	٥	62,459
2 8 S	٥		2112	1	219
2	٥	o	1,430	•	1,630
	•	0	910	•	980
•	•	٥	٥	•	•
TOTAL 169 211	٥	•	2,622		2,629
GRAND 13,655 30,308	. 62,010	3,046	2,622		67,685

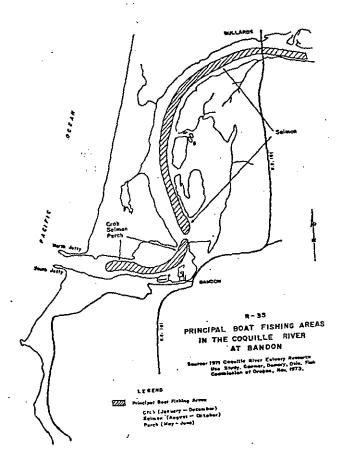
Gaumer, Demory & Osis, "Coquille Miver Estuary: A Study in Resource Use". (1973

**-79 -**

Volume I Part 2 760

48-40

- 80 -



### TABLE R-36 NUMBER OF BOAT ANGLER TRIPS BY MONTH AND AREA, COQUILLE RIVER ESTUARY MARCH 1 THROUGH OCTOBER 31, 1971

	ishing Area and Station Number Below Highway 101 Bridge	K.
Month	Total (B-1 Only Station)	Percentage
March	a	0.0
April	56	3.2
May	91	5.2
June	224	12.8
July	159	9.1
August	664	37.8
September	438	25.0
October	123	7.0
TOTAL	1,755	100.0

SOURCE: Gaumer, Demory & Osis, "Coquille River Estuary: A Study in Resource Use". (1973)

"Scuba Fishery. The small number of scuba divers interviewed on the Coquille River Estuary precluded making an estimate of catch and effort for this fishery."

*Angler Origin. Over half (53 percent) of the anglers interviewed were residents of Coos County, 35 percent were Oregon residents from outside Coos County, and 12 percent were out-of-state residents.

-- 21 --

Volume I Part 2 762

4.8-41

Volume I Part 2

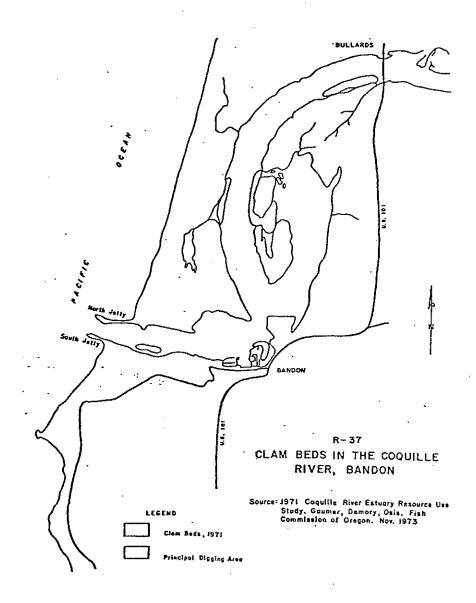
- 82 -

<del></del>		Angler Origin	
<u> </u>	County	State	Non-State
Boat	1,051	618	86
Shore	5,995	4,187	1,549
Tideflat	144	21	4
TOTAL	7,190	4,826	1,639
PERCENTAGE	52.7	35.3	12.0

SOURCE: Gaumer, Demory & Osis, "Coquille River Estuary:
A Study in Resource Use". (1973)

"Combined Recreational Fisheries. A total of 13,700 resource user trips (1,800 boat, 11,700 shore and 200 tideflat) were expended on the Coquille River Estuary during the study (Table R-33). The 13,700 user trips represented 30,300 hours of effort (5,000 boat, 25,100 shore, and 200 tideflat). Peak activity for the boat, shore and tideflat fisheries was in August, July, and March, respectively. Combining all fisheries, Table R-33 shows that July was the peak month of activity. Areas receiving the principal use for boat, shore, and tideflat fisheries were below Highway 101 bridge (100 percent), city docks (35 percent), and treatment plant (49 percent), respectively."

"Anglers of the three fisheries harvested 67,600 animals (62,000 fish, 3,000 crabs, and 2,600 clams). Dungeness crab comprised 91 percent of the boat anglers' total catch. Fish were the principal specie harvested by shore anglers and represented 99 percent of their total catch. Surf smelt was the main species caught. Softshell clams comprised over 99 percent of the tideflat users' total take. Comparing the catch for all three fisheries revealed that shore anglers harvested 62,500 or 92 percent of the total animals taken. Boat anglers and tideflat users each caught 2,600 marine animals. Peak catch for the boat, shore, and tideflat fisheries occurred in June, July and July, respectively. Combining all fisheries, July was the principal month of catch."



- 84 -

4.8 - 42

- 83 -

### Fish Harvest and Revenue From Angling

Sport fishing generates considerable income in Coos County, both directly (equipment, travel and accommodations) and indirectly (revenue from licenses returned to the area for stocking, multiplier effect of original expenditure). The State Department of Fish and Wildlife estimated that in 1970, the annual gross expenditure on angling in Coos County was about \$3M (See Table R-38) representing nearly 120,000 anglers, spending \$25 a day. Salmonids accounted for 70 percent of angler days and 90 percent of the expenditure, (mostly chinook and coho salmon, averaging 12 lbs. and 8 lbs. respectively), less than 30 percent of the salmon were caught in rivers; most activity was from ocean angling during late spring and summer. Angler success was also greater offshore. The Tenmile Lake system was far more productive than the main rivers. The Coquille system was favored for steelhead; shad and striped bass made a significant contribution, and resident trout continued to be popular. The gross expenditures were based on the per-fish or per-angler-day estimates calculated by the Department of Fish and Wildlife. (See Table R-38). The Department of Fish and Wildlife estimated that license sales would increase 50 percent between 1972 and 1980, with perhaps a 350 percent increase by the year 2,000. This rate of growth will return substantial revenues for stocking and habitat management to cope with the increased angler pressure. Habitat protection is a very important priority, and environmental degradation remains a significant threat to the fishery resource of the County, and to the portion of . tourist income that is derived from it.

TABLE R-38

SPORT FISHING HARVEST, ANGLER DAYS AND EXPENDITURE (1970)

		·	
	HARVEST	ANGLER DAYS	GROSS EXPENDITURE (\$
SALMON			
OCEAN			· · · · · · · · · · · · · · · · · · ·
From Coos Bay	28,400	32,300	\$2,101,600
From Bandon	500	600	37,000
ESTUARY			
Coos Bay	500	1,250	37,000
Coquille River	1,300	3,250	96,000
STREAMS			
Tenmile System	700	2,800	51,800
Coquille River	150	600	11,100
STEELHEAD			
Tenmile System	600	2,400	44,000
Coos River	1,400	5,600	103,600
Coquille River	3,500	14,000	259,000
SEARUN CUTTHROAT			
Tenmile System	450	125	2,313
Coos River	150	100	1,850
Coquille River	400	250	4,625
STRIPED BASS	•		
Coos River	875	1,660	30,710
Coquille River	- 50	95	1,759
SHAD			•
Coos River	6,500	2,990	55,315
Coquille River	250	115	2,127
SUBTOTAL	45,725	68,135	\$2,839,999
RESIDENT TROUT	65,700*	47,750*	286,500*
WARM WATER FISH	6,030*	1,020*	6,080*
TOTAL	116,455	116,995	\$3,132,579

SOURCE: Environmental Investigations: South Coast Basin; Oregon State Game Commission, 1972

**—**86 —

-- 85 --

^{*} Applies to entire South Coast Basin (includes Curry County)

### HUNTING

Most of the material in the following section is derived from the 1976 Annual Report of the State Department of Fish and Wildlife. 21 As pointed out in the recreational needs section, hunting involves a smaller segment of the population than fishing. However, during the relatively brief season alloted for game harvest each year, it generates avid participation.

In Coos County, the chief game species are Roosevelt Elk, Black-tailed deer, black bear, band-tailed pigeon and waterfowl. Also hunted are other upland game birds (pheasant, valley quail and mourning dove in agricultural areas, blue and ruffed grouse, mountain quail in forest lands). Blacktailed deer account for the most hunter days. They are found throughout the County, especially on recently logged lands, and on or near agricultural lands. The Roosevelt Elk is a popular game species; Elk densities are highest in the Coos and Coquille drainages. The Millicoma herd is one of the State's most important, and many were trapped and transplanted to other basins each year. Tideflats and mineral springs along the estuaries are important to band-tailed pigeons in the summer months; bird concentrations are found on the Coquille estuary. Waterfowl are abundant in the Coquille and Coos basins (mallard, pintail, widgeon and others) particularly on areas of tidal influence. Freshwater lakes and flooded lands of the lower Coquille and Coos Rivers also serve as important habitat. Approximate seasons for game species are as follows:

Black-tailed Deer October 3-25

Roosevelt Elk November 14-22

Black Bear September 1-December 31

Band-tailed Pigeon September 1-30

Mourning Dove September 1-30

Grouse October 3-25

Quail October 17-November 22

Pheasant

October 17-November 22

Waterfowl

October 10-January 10

Seasons vary each year, depending on the numbers available for harvest following pre-season counts.

## Composition of Big Game Herds, Hunting Pressure

(See Tables R-39 and R-40) These figures are from sample range counts and give some indication of the health of elk and deer herds in the four units which partly lie in Coos County. They are listed below with acreages:

Tioga 428,338 acres in Coos County

Powers . 159,011 acres in Coos County

Sixes 290,337 acres in Coos County

Elkton 163,594 acres in Coos County

The density counts indicate present population; the number of calves shows the rate of reproduction and calf/fawn survival after winter mortality. The ratio of males to females indicates the effect of hunting pressure, and the surplus numbers presently available for harvest. (The following analysis relates only to Powers and Tioga Unit.) The elk herds appeared to have very low bull populations (well below State averages). The rapidity with which mature timber has been cut has contributed to these low bull populations. Also, densities were well below the 10 year averages and State averages. Reproduction was low in 1975. Statewide, but improved in 1976; the Powers Unit appeared to have potential for improved stocking, while the Tioga Unit appeared to be decreasing in its ability to produce elk, largely because of changing forest practices. These trends are greatly dependent on winter weather conditions, which affect both reproduction and survival rates. Blacktailed deer also had relatively low buck ratios after the hunting season, with previous years and other management units, particularly in the Powers Unit. However, 1976 appears to have been a good year for reporduction and fawn survival after a poor year in 1975. Deer densities in the County are lower than Western Oregon averages: further

- 87-

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decline is expected with reductions in logging activities and intensification of forest management practices.

Roosevelt Elk accounted for 39,210 hunter days in 1975 in the four management units, with a success rate of 10.6 percent; black-tailed deer accounted for 106,570 hunter days for a hunter success rate of about 22.6 percent; each hunter averaged about 4.7 and 5.1 days in the field for elk and deer respectively. Statewide long term trends may be used as an indication of local trends in hunting; for Black-tailed deer, the success rate has dropped steadily from the 1961 peak (65 percent) to 29 percent in 1974, and 21 percent in 1975. The reasons for the decline in success are twofold: the number of hunters was fairly stable until 1971, then increased rapidly, while the total harvest dropped steadily from the 1961 peak (61,000) to 31,360 in 1975. Any number of factors could be suggested. But it appears that the severe winter of 1968-69 was mainly responsible for the depletion of the herd, together with increased winter pressure. During efforts to restock the herd. relatively few permits were issued for antlerless deer. Roosevelt Elk situation is somewhat different - hunting popularity has shown a long term increase, while the number harvested has also increased. As a result, success rates, while lower than for deer, have not decreased very much. The State Department of Fish and Wildlife makes big game habitat improvement its top management priority. Since 1953, in Coos County there have been 1,595 seeding and fertilization range rehabilitation projects, including one of 215 acres in 1975 (mostly seeding of winter range areas).

Figures on upland game birds in the County are available only for band-tailed pigeons. Preseason surveys at two locations showed flocks as follows:

	1972	1973	1974	1975	1976	
Blueslide	1009	399	274	648	333	
Parkersburg	377	397	143	502	151	

Apparently, numbers can fluctuate considerably from year to year, but Statewide figures suggest that populations in the southwest have declined a little, but have increased in the northwest. About 23 percent of licensed hunters also hunt

MELS M-19 COMPOSITION OF BIG CAME HEADS, 1975-76+

Roossvelt Elk	Bulle	COWS	Calves	Total	BULLS/100	7100	Norage	Calves/100 Cove	201/	10 yr.	E1k/H11•	10 yr. Average
					1975 1976	1976		9161 516I	1976		1975 1976	
Tioga Unit	-	343	310	1,265	-	:	•	56	ž	32	2.1 1.3	3.1
Elkton Unit (S. Commt Portion)	n	2	\$	134	<u> </u>		1	1	1	;	0.9* 0.8*	1.0*
Powers Unit	~	=	32	2	~	•	7	23	\$	7	0.7 0.9	1,5
Sixem Unit	1	-	****		:	1		1	!			i
(State)					(5)	(3)	(8)	(33)	(42)	(48)	(2.2) (2.4)	. (2.1)
				, t								
Blacktailed-Deer	Bucks	200	Favns	Total	Bucks/100 Does	K6/100 Does	10 yr. Average	Faums/100 Does	100	10 yr. Averaga	Deer/Hile	No yr.
	_				1975	1975 1976		1975 1978	3/61		1975 1976	
Tioga Unit	11	103	22	195	1	11	39	\$	2	6	1.9 1.8	2.0
Elkton Unit (5. Coast Portion)	<u></u>	Ş	ęę.	6	I	21*	23	!	77	674	3.2* 2,6*	2.6
Fowers Unit	٠	9	\$	121	7	65	27	33	*	££	3.9 2.1	7.7
Sixes Unit	7	3	22	100	61	22	23	2	*	7.5	4.1 3.7	7.3
(State)	: 				(36)	(26) - (25)	8	(36)	(65)	(63)	(3.7) (3.8)	(4.0)

GOURCE: Annual Neport (1976) State Department of Fish and Wildlife

+ 1976 information gathered November 1975 through January 1976.

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-- 89 --

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**--** 90 --

TABLE R-40 1975 BIG GAME SEASON: HUNTERS AND HARVEST

<del>7 </del>				Success
	Hunters	Hunter Days	Harvest	Rate (%)
Roosevelt Elk		. `		
Tioga Unit	4,800	22,980	666	14 %
Elkton Unit	2,590	10,400	114	4 *
Powers Unit	1,040	4,380	121	12 %
Sixes Unit	410	1,450	44	11 %
TOTALS	8,840	39,210	945 (St	10.6%
Black-tailed Deer				
Tioga Unit	4,870	25,070	780	16 %
Elkton Unit	5,060	27,360	1,190	24 8
Powers Unit	2,990	15,270	700	23 %
Sixes Unit	5.720	38.870	1,540*	24 %+
TOTALS	18,640	106,570	4,210 (St	22.6%

SOURCE: Annual Report (1976) Oregon Department of Fish and Wildlife

for upland game birds. Statistics on the 1975 waterfowl harvest in the County are given below:

	HUN'	rers			HA	RVEST	
Duck	Geese	Coot	Snipe	Duck	Geese	Coot	Snipe
2165	102	652	412	26,939	175	12,316	2875

### Economic Importance

Wildlife resources make a substantial contribution to the economy of Coos County. It was estimated, for instance, that for the whole south coast basin, including part of Curry County, big game and bird hunting generated \$2.3M in 1970.22 These figures were based on the following estimates of expenditures:

Black-tailed Deer	\$20.10/hunter day
Roosevelt Elk	\$26.60/hunter day
Waterfowl	\$ 8.00/hunter day
Small game	\$ 6.00/hunter day

An estimate of expenditure in Coos County can be arrived at for 1975, using these figures adjusted for an average inflation rate of 5 percent. In 1975, deer generated approximately \$1.03M, and elk \$0.09M in direct expenditure, or a total of \$1.96M. This does not take into account that if expenditure followed the same pattern for Coos Countyin 1975, (11 percent of total expenditure), about \$335,000 was spent directly on waterfowl and small game hunting in the County in 1975, making a total of \$2.22M.

Includes 70 deer harvested in early season and 70 in late season.

⁺ Success rate is for general season only.

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- Oregon Outdoor Recreation: Third Edition Supplement Extract, State Highway Division, Salem, 1971
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- 8
  Oregon State Parks System Plan 1975-81 (and Amendment 1977-83); Parks and Recreation Branch, State D.O.T., Salem, 1975 Draft
  - 9
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- John Phillips, personal communication, 12/77; (Oregon State Parks and Recreation Branch, Coos Bay)
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12

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- Oregon Coastal Conservation and Development Commission, op. cit.; footnote #12
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- The Impact of Travel on the Oregon Economy and Visitor
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  Environmental Investigations: South Coast Basin; Oregon State Game Commission; Portland, Oregon, 1972
  - 18
    Oregon State Game Commission, op. cit.; footnote #17
- Reese Bender, personal communication. 12/77; (Oregon State Department of Fish and Wildlife)
- Gaumer, Demory and Osis, "Coos Bay Estuary: A Study In Resource Use". 1973
- 21 1976 Annual Report: Wildlife Division: State Department of Fish and Wildlife; Portland, Oregon, 1976
  - Oregon State Game Commission, op. cit.; footnote.#1

- 93 -

# OREGON STATE RECREATION TRAILS (see maps, following)

The Oregon Recreation Trails System was created by an Act of the Oregon Legislation in 1971 (ORS 390.950-390.990). The Recreation Trails System is administered by the Parks and Recreation Division of the Oregon Department of Transportation, which summarizes the trails program as follows:

"A statewide interconnected trails system for hiking, bicycling and horseback riding is under development by the State Parks and Recreation Division of the Department of Transportation in cooperation with citizen groups, other government agencies and private landowners.

The ultimate goal is a network of recreation trails which will allow Oregonians and visitors to walk or ride to any of the major recreation attractions without depending on motor vehicles. The system will include recreation trails in urban areas. scenic trails on the coast, mountains and desert and connector trails between them.

The trails program was begun following passage of the Recreation Trails System Act of 1971. That Act provided the legal basis for a trails system, assigned the responsibility to the Transportation Commission and created the eight-member, Recreation Trails Advisory Council which is appointed by the Governor."

.(Source: Letter from State Parks and Recreation Division, March 15, 1984).

There are three coastal components to the State Trails System:

# 1. Coast Bicycle Route

This scenic coastal route provides enjoyment for bicycle enthrusiasts, and is contained entirely within public right-of-ways.

# · 2. Oregon Coast Trail

This scenic, partially complete trail provides enjoyment for hiking enthusiasts. In Coos County, the Trail is only developed across the State-owned lands in the parks south of Charleston.

# Coast Range Trail

This trail exists in <u>concept</u> only, and is intended for hiking and horse riding. At present, its proposed route is not more specific than a general corridor.

LCDC Goal 5 requires an analysis of possible conflicting uses with resources such as the three State Trails that pass, or may someday pass, through Coos County. An assessment was conducted to identify existing or potential conflicts, and none were found to exist. Several factors support this conclusion:

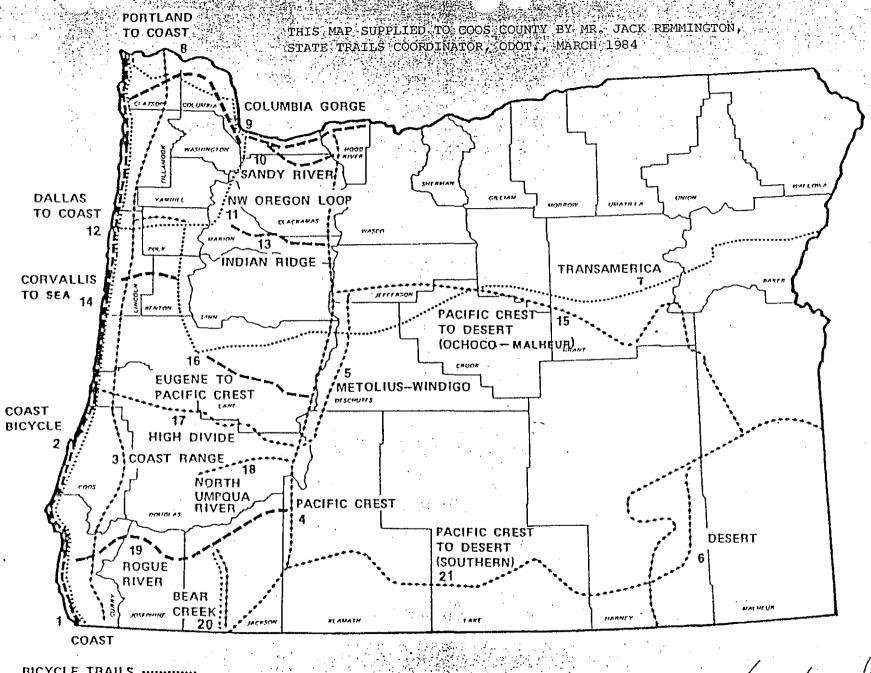
- 1. Site selection for trail development must "minimize adverse effects on adjacent landowners or users and their operations (ORS 390.965(1)(c))."
- 2. "Development and management of trails shall be designed to harmonize with and complement any established forest, agricultural, or other use plan . . . (ORS 390.965(1)(d)."
- 3. The State is required to give emphasis to the development of trails across <u>public lands</u>, and no trails may cross private land occupied by a dwelling without <u>consent of the owner</u> (ORS 390.965(1) (a&b).
- 4. Pursuant to State Law, designation of the Trails "shall not impose any limitation upon an otherwise lawful use of the adjacent private land" without consent of the owner of such land (ORS 390 968(2)).
- 5. It is impossible to identify specifically where future trails may be sited, since the State is specifically prohibited from excercising its powers of eminent domain for site selection and property acquisition (ORS 390.989).

The Oregon Recreation Trails System Act recognizes trail development may have adverse impacts on adjacent properties and uses, but provides a measure of protection for private property rights. In other words, the Act itself is a "program to resolve conflicts" pursuant to Goal 5, if conflicts are perceived. However, the State Parks Coordinator foresees no problems or conflicts with trail development. The Coordinator merely asks the County to adopt a plan policy recognizing the State Trails Program and agreeing to coordinate and cooperate with the State Parks Division in implementing it in the future (Telephone conversation with Mr. Jack Remington, ODOT State Trails Coordinator, March 14, 1984).

# COAST BIKE ROUTE

OREGON DEPARTMENT OF TRANSPORTATION

THIS MAP SUPPLIED TO COOS COUNTY BY MR. JACK REMMINGTON, STATE TRAILS COORDINATOR, OREGON DEPT. OF TRANSPORTATION, MARCH 1984



BICYCLE TRAILS ..... HIKING TRAILS HORSE & HIKING

OREGON RECREATION TRAIL SYSTEM

TION TRAIL SYSTEM (proposed)

- a Plan for a Recreation Trails System

# 4.9 ENERGY

```
Non-renewable
Oil and Gas
Coal
Renewable Sources
Water

ALTERNATIVE SOURCES OF ENERGY
Geothermal
Nuclear
Solar
Wind
Waste

CONSERVATION TECHNIQUES
Waste Conversion
Solid Waste
Biomass
```

Site Development and Building

Land Use Patterns
Industrial
Commercial
Residential
Transportation

Construction

CURRENTLY UTILIZED ENERGY SOURCES

REFERENCES

INTRODUCTION

### 4.9 ENERGY

### I. INTRODUCTION

The past decade has clearly shown that energy is a resource of limited availability. As a commodity to be bought and sold, it is subject to a standard economic rule: If the demand for the product (energy) rises faster than it can be supplied, or if the quantity supplied is reduced, the price (of energy) will rise to reflect the increasing scarcity.

Occasional brownouts and blackouts in other parts of this country, as well as higher prices of electricity, gasoline shortages and price increases, and declining tourism locally, have served to emphasize two undisputable points:

- Energy is a critical necessity in our economy and our daily lives.
- 2. The known available supply of existing forms of energy
  Known reserves of nonrenewable energy resources are declining.

Figure (1) points dramatically not only to the increasing use of energy but also to the tremendous amount of lost or wasted energy. As a later section will show, this wasted energy is a current problem that is also an opportunity: by decreasing waste, a new source of additional energy is "created."

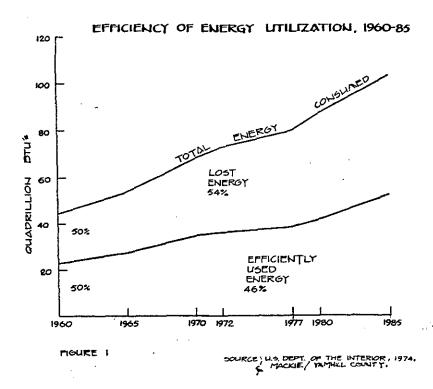


Figure (2) dramatically illustrates the typical market response of higher prices for a commodity (energy) whose available supply is declining. These predicted exponential price increases mean much more than just increased future expenditures: they indicate that income that would otherwise be used for other purposes will instead have to be earmarked for energy. For individuals, this could mean foregoing a vacation to be able to afford winter heating bills. For the economy, it means higher production costs transferred (of necessity) to the consumer as more expensive products.

FIGURE Z

Average Electricity Price Projections (C/kwh)
(Assuming a 6 Percent General Rate of Inflation)

	Reside				Street and
Year	Private Utilities	Public Utilities	Commercial	<u>Industrial</u>	Highway Lighting
1971	1.33	1.02	1.31	0.44	2.88
1976	1.92	1.41	1.82	0.74	3.42
1981	2.91	2.02	2.75	1.09	5.13
1986	4.40	2.91	4.13	1.59	7,69
1991	6.21	4.00	5.79	2.21	10.87
1996	8.78	5.53	8.17	3.12	15.27

# Representative Petroleum Prices (¢/gallon) (Assuming a 6 Percent General Rate of Inflation)

<u>Year</u>	Gasoline	Home Heating Fuel
1971	36.7	19.2
1976	59.2	41.3
1981	85.5	59.5
1986	123.3	85.9
1991	173.6	120.8
1996	244.1	171.0

SOURCE: OREGON DEFT OF ENERGY, 1179

The net effect, in the absence of planned responses to this expected future, could be a dramatic restructuring of the economy such that individual incomes must be diverted away from leisure activities just to meet expenditures for basic necessities.

Although many planning decisions regarding energy use and development will necessarily occur at the state or national level, Coos County can make appropriate decisions for the local area to ensure that the county is adequately prepared to respond to these expected energy problems. The major problem, of course, is not how to dispose of energy, but instead, where to find it.

The supply of available energy can be increased by considering

three distinct forms of energy sources:

- <u>Discovery of new reserves</u> of currently used energy sources (such as coal);
- ii. Alternate sources of energy (such as solar and wind energy) to replace the depleted reserves of currently used sources;
- iii. Decreased use of energy through employment of various conservation techniques to eliminate wasted energy.

This element is organized to explore each of these three methods for increasing the energy supply. Each section addresses specific methods within the three broad categories, and considers the feasibility of using the methods in Coos County by addressing local problems and opportunities associated with each method.

### II. CURRENTLY UTILIZED ENERGY SOURCES

### A. Non-Renewable

### 1. Oil and Gas

Existing oil and gas use in Coos County is generally limited to sporadic propane use (natural gas is not sold commercially in the county) and to fuel oil for heating of older housing. (Most new homes utilize electricity for heating). The oil is imported by ship to the Port of Coos Bay and distributed locally.

Discovery of new sources is an international concern, but Coos

County does show limited promise for development of in-county

sources. Exploration for oil and gas has occurred in Coos County

since 1919 but no wells have proved feasible for production. As

noted in the Coos County Background Document of the Comprehensive

## 2. COAL

Coal resources were first discovered in Coos County in 1854, near Empire. Coal production continued for 90 years, peaking shortly after the turn of the century. During this period an estimated 3 million tons of coal was removed. Most of the coal was either shipped to San Francisco or used locally by locomotives (until replaced by diesel fuel). There were 36 principal mines, the most productive of which was the Beaver Hill mine, which probably produced around 750,000 tons of coal during its operating period.

Current estimates of the Coos Bay field total 119 million tons of which only 60 million tons are considered minable.

It is estimated an additional 50 million tons of coal may exist in the southern portion of the County at Eden Ridge. These coals lie beneath considerable overburden, are extremely faulted and contain lower potential heat value than the Coos Bay deposits. Their exact mining potential is not currently known, but owing to the previously noted factors it is expected to be less than the potential of the Coos Bay field.

As the County's coal contains a relatively low heating value, is faulted and lies beneath considerable overburden and must, in almost all cases, be mined by expensive inefficient sub-

surface techniques, the potential of future extraction of local coal is, at best, extremely remote. Further, even if increases in alternative fuel prices justify coal exploration, the resource exists in insufficient quantities to likely warrant extraction. (Rev. 01/88 ORD 87-11-016L)

Plan, "The most promising area for oil and gas on land in Coos County is the Coos Basin, an area of approximately 275 square miles. It is the only onshore area with the 'proper' geologic history. Not all of the Coos Basin, however, holds promise for the discovery of oil and gas. The areas between South Slough and Isthmus Slough and Catching Slough have the necessary geology for "traps". Little research has been done in the northwestern portion of the basin; a test well drilled here could provide much valuable information. However, the cost of such a well could be as much as \$500,000 and would necessitate participation by a number of companies for economic feasibility."

"Although the exact extent of the County's onshore oil resources is not precisely known, it is apparent that they will not be of commercial value for quite some time. Offshore gas shows have been somewhat more promising and may be commercially valuable at some point in the future.

"There are approximately 1,000 square miles of shelflands off the coast of Coos County that have yet to be explored for oil and gas. It is considered to be promising. Only a portion of these lands were offered for lease during the 1964 Federal lease-sale of offshore lands; the remainder were withdrawn by the Navy for national defense reserves. The previously mentioned test hole could provide much needed geologic information about this area. In any event, this area remains one of the best prospects for petroleum exploration in Western Oregon."

#### 2. Coal

Coal resources were first discovered in Coos County in 1854, near Empire. Coal production continued for 90 years, peaking shortly after the turn of the century. During this period an estimated 3 million tons of coal was removed. Most of the coal was either shipped to San Francisco or used locally by locomotives (until replaced by diesel fuel). There were 36 principal mines, the most productive of which was the Beaver Hill mine, which probably produced around 750,000 tons of coal during its operating period.

There are also coal reserves amounting to another 50 million tons known to exist in the Eden Ridge-Squaw Basin area in the extreme southern portion of the County (primarily Siskiyou National Forest).

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05-9 GENERAL MAP OF COAL-BEARING AREAS Source: Mason and Hughes (1975) 22 IO Miles EXPLANATION Approximate Limit of Coat-bearing Rocks Arece Including Reservet Estimoted by Alleriand Bolowin, 1944 Southport and Thomas South Slough 4. Riverton 5. Beaver Slough Area Including Reserves Estimated by Duncan, 1953

Volume I Part 2

788

4.4-3

SEE REVISION PAGES ATTACHED FOR

This coal is higher in heat value than the Coos Bay coal and occurs in thicker and more gently dipping seams.

Factors of location, transportation, available mining technology and geologic conditions all weigh heavily against re-opening the Coos Bay coal field to production at present. (See Background Document Open Space Element).

As noted in the Background Document of the Comprehensive Plan:

"drastic changes will have to occur in economic conditions. (the scarcity of energy resources) and technology before the Coos Bay coals can be recovered. Certainly the coal would have to be used locally, and either converted to energy by conventional steam turbine plants or gasification plants, adequate supplies of fresh water for process water will be an additional problem, though saltwater can be used for cooling. The possibility of future recovery of coal in the Coos Bay area poses certain difficult planning problems. Part of the resource underlies urban or urbanizing areas. Revived mining could cause subsidence or settling of foundations. Surface problems for prospective mine operators. While it does not appear justifiable or possible to limit development in the coal bearing area, it is importnt to avoid pre-empting possible future recovery.

#### B. Renewable Sources

#### Water

The large expenditure required for dam construction, property acquisition costs, and generating equipment combine to make large-scale hydroelectric power production an unlikely local source for new energy. The County lacks suitable sites with sufficient water flow which are not committed to a major conflicting use -- forest resource management.

According to Don Floyd, a former OSU Extension Service Energy Agnet, OSU's Water Resources Reserch Institute suggests that there are as many as 28 sites suitable for impoundments in the South Coast Basin which could generate up to 118 megawatts of power in excess of 50% of the time. However, as noted in the Water Resources Inventory of this Plan, only one site is being studied for hydroelectric generation potential.

According to District XIX Water Master John Drolet, data on potential reservoir sites was gathered and analyzed by the State Water Resources Department (WRD) prior to adoption of the agency's existing South Coast Basin Policy. The Water Resources Inventory and Map contained elsewhere in this Plan identify ten WRD sites. Of these, only the Eden Ridge Site (#430) has been identified by WRD as having potential for hydropower development. Pursuant to OAR 660-160-000, the

Eden Ridge Site is considered a "lC" resource. It is therefore the subject of a "conflicting use" discussion, below.

According to Drolet, all other candidate impoundment sites on the Water Resources Inventory Map are judged "suitable" for water impoundment, but do nto hve hydropower potential. Pursuant to OAR 660-16-000, these sites are determined to be "1B" resources. That is, inadequate information on these sites precludes a decision at this time to proceed with the Goal 5 process and determine whether to protect the site for reservoir development or allow conflicting uses. A policy in this Plan recognizes the need to further consider the matter at a future update of the Plan. According to Drolet, the sites lacking hydropower potential were dropped from serioud consideration for one or more of the following reasons:

- * remoteness of location
- * adverse effects on fish life
- basin development
- insufficient storage

Re-evaluating these "lB" sites during updates of the Plan will permit a reassessment of the suitability of the sites for hydropower development, based on changing market conditions regarding electricity consumption, available supply and power production costs.

The Eden Ridge site is designated a "IC" resource because it is an important site that does present realistic potential for hydropower potential. OAR 660-16-005 stipulates that it "is the responsibility of local government to identify conflicts with identified (i.e., "1C") Goal 5 resource sites. There is no question that impacts would result from development of the Eden Ridge site. Conflicts would include competition with othe resource values for timber production, big game habitat, recreation, non-anadramous fisheries (an 80-foot falls is located downstream from the proposed day site) and open space. OAR 660-16-005 further requires that "where conflicting uses have been identified . . ., these impacts must be considered in analyzing the economic, social, environmental and economic consequences" expected to result from the proposed action. DLCD's June 24, 1983 report on the County Plan further requires that "an exception to Boals 3 and 4 will be necessary for those large sites which the County wishes to protect or for which a large-scale impoundment is certain (DLCD Report, June 24, 183, p. 189)." The DLCD report further notes that the exception can be deferred to a later date (DLCD, p. 189). The complexities of developing the Eden Ridge project, together with a number of uncertainties about it, combine to suggest that the most

appropriate way to complete the Goal 5 process for the site is to stipulate that an exception must be taken in the future prior to formal County authorization fot the proposal. Accordingly, a policy in the Plan endorses this approach.

Finally, a discussion on water as an energy source would not be complete without mentioning tidal energy development; that is, energy can be produced from the perpetual motion of tidal action. Although the difference between high and low tides in Coos County may not be sufficient to permit such development under existing technology, future technological improvements may allow the County and other coastal communities to take advantage of tidal energy potential.

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#### III. ALTERNATE SOURCES OF ENERGY

#### A. Geothermal

According to the Oregon Department of Energy handbook <u>Community</u>

<u>Energy Planning</u>, Coos County has no known or potential sources of geothermal energy.

#### B. Nuclear

The only operating nuclear power plant in Oregon is the Trojan plant at St. Helens, Oregon. Locally, Pacific Power & Light has a site north of Bandon originally selected as a potential nuclear generation site. Geologic problems inth the property for structural foundations will preclude installation of a nuclear generating plant. Elsewhere, the installation of nuclear power generation is likely to face severe difficulties for several reasons:

- i. The already lengthy permitting system is likely to lengthen because of concerns over safety of operations.
- ii. Suitable nuclear waste disposal sites are increasingly difficult to locate.

#### C. Solar

As noted by Don Floyd, OSU Energy Extension Agent, "Human beings have directly used the sun's energy for thousands of years for the heating of buildings. Coos County can boast the first solar home in Oregon and has an ideal climate for the use of passive solar applications and active domestic hot water heating systems.

The currently available 65 percent tax credits for residential solar devices and the availability of low-interest financing beginning in 1981 makes solar a very realistic, inexpensive option for space and water heating, expecially in new construction. Tax incentives for business and industry are even more attractive than the residential options."

Problems that currently inhibit more widespread use of this energy source are the immediate costs associated with the use of collection equipment. As noted in the proposed City of Coos Bay Energy Element;

"Due to the equipment needed, installation is a rather costly initial outlay, ranging anywhere from \$5,000-\$7,000. This is a large sum even in comparison to yearly energy savings, whereby annual savings just to pay back the equipment cost of \$1200 exceeds 25 years. (Mayes, 1979) This consumer cost is a primary deterrent in widespread usage of solar energy which at present is a supplementary energy source. It is predicted that 5-10% of the total U.S. energy needs will be provided by solar heat by the year 2000. (Mayes, 1979)."

This statement applies more accurately to active solar heating (which utilizes a collector system to gather solar energy). Passive systems (which utilize the structure itself to absorb and store energy) require less expensive mechanisms but normally must be designed into the initial construction of the building.

Although present circumstances limit the costs affectiveness of individual solar energy use, future technological improvements and higher prices for other fuels and electricity will likely increase the attractiveness of direct solar energy collection. An important project for future planning efforts will then be a delineation of solar rights together with ordinance guidelines for ensuring proper solar access.

#### D. Wind

"The Pacific Northwest is endowed with substantial resources

of both hydro energy and wind energy for electrical power generation. The combination of these energy sources into an integrated and optimized system has the potential for supplying a significant portion of the future energy and peak power requirements in the Pacific Northwest."

Figures 3 - 6 show that the Oregon Coast has great potential for the capture of wind energy. Although it is unlikely that wind energy will be able to supply a large portion of energy needs, it is a promising source of additional energy to supplement and reduce the rate of decline in supply of other energy sources.

Access to the wind is normally considered a detriment rather than a right (except for the occasional windmill or sailing vessel). As the wind comes to be seen as a resource to which access (and protection of access) is desirable, the rights to use of this resource must be clearly defined. The process of delineating these rights is likely to be slow and cumbersome as has been the case for acceptance of the concept of solar rights.

This eventual definition of rights is important for the two general categories, public (or large scale) systems and individual (or small scale) systems, in which wind energy use is likely to occur.

Individual use of wind energy is an historical method of power generation, such as for milling flour and pumping water. Recent court cases and public utility decisions are likely to encourage increased use of wind power generation as a secondary source of energy. For instance, Pacific Power & Light announced in late 1979 that they will buy back power generated by individuals at the residential rate. In this way, individuals can better justify initial expenditures for equipment. The Oregon State University Extension office

2. ROBERT W. BAKER, " PACIFIC HORTHWEST WIND POWER RESOURCE ASSESSMENT, 6.5.U.

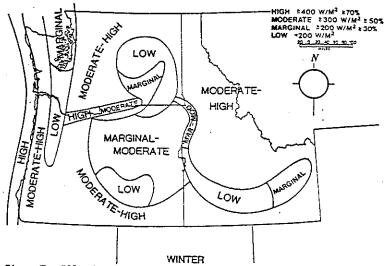


Figure 3. Effective power density map for winter.

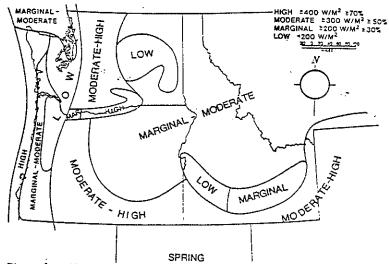
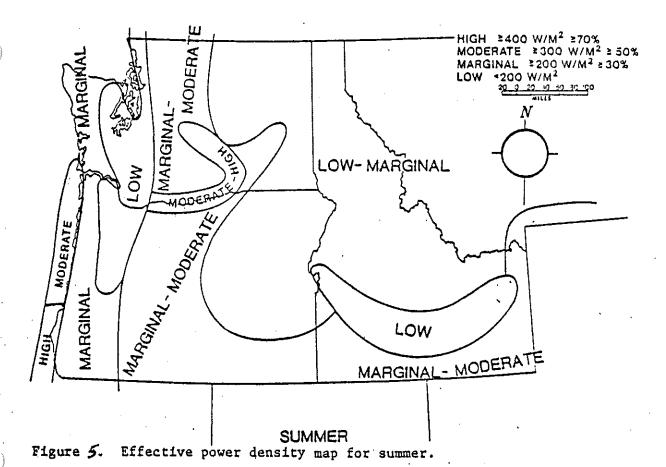
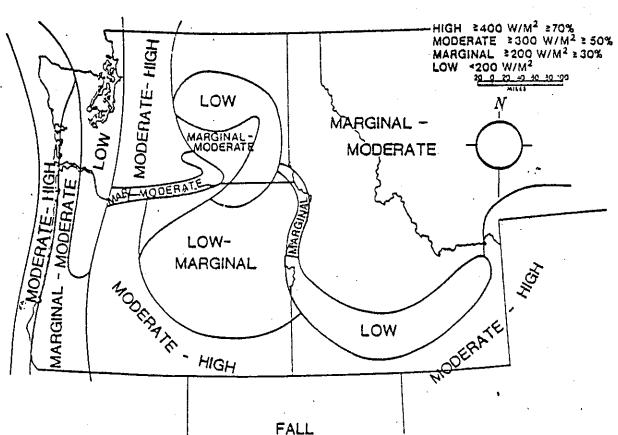


Figure 4. Effective power density map for spring.

-10-





Volume I Part 2

Figure 6. Effective power density map for fall.

in Coquille is the local liason for the State Anemometer Loan Program (SALP) and can provide a great deal of assistance and information to individuals interested in private wind power generation.

Public use of wind power is a more recent and less accepted method. The City of Bandon is using a \$15,000 grant from the Land Conservation and Development Commission to study the feasibility of various sites along the Southern Oregon Coast for municipally-owned wind power generation. The delineation of access rights will be extremely important to ensure that access for such municipal power generating capability is protected from interferencel.

#### E. Waste

A wind farm near Whiskey Run Beach and Fivemile Point north of Bandon, has been under development by Pacific Power and Light Company for several years. In June 1980 the County Planning Commission approved a Conditional Use Permit for Pacific Power that authorized construction of a 500-kilowatt wind-powered turbine generator and a 330-foot high meteorological tower for the purpose of demonstrating and evaluating the potential of commercially utilizing wind energy to meet future needs. Subsequently, the Planning Commission in December 1981 aproved a second Conditional Use Permit that authorized three additional meteorological towers as an expansion of the initial development. Finally, the Planning Commission in March 1983 approved a Conditional Use Permit for Whiskey Run Partners (under license from Pacific Power and Light Co.) that authorized the installation of up to twenty-five 50-kilowatt wind-powered turbine generators. This latter permit was subject to three conditions:

- That the towers be sited outside the ares affected by the Coastal Shorelands Boundary;
- That if any Indian relics are uncovered, the local Indian tribe be notified; and
- That a fence or gating be erected around the subject turbine locations, thereby affording protection for both visitors and the turbines themselves.

The specific locations of the County authorizations to date are as

#### June 1980 Conditional Use Permit

T.27, R.14, Sec. 19, and 20, Tax Acct. #7626

#### December 1981 Conditional Use Permit

T.27, R.14, Sec. 17, 20 and 29, Tax Lots 100, 400 and 700

#### March 1983 Conditional Use Permit

T.27, R.14, Sec. 17, Tax Lots 100 and 400

The County's conditional use process has worked effectively to ensure that the development proceeds compatibly with surrounding uses. Special protection for the site as "1C" Goal 5 resource has been considered and rejected by the County; instead, a "lB" designation was determined as a more appropriate approach since commercial wind generation is still a little more han an experimental endeavor. According to a March 3, 1984 article in The Oregonian, the facility "generated only 8% of its rated power output during its first 42 days of operation." According to the same article:

> "As of January 31, the project had produced about 100,000 kilowatt-hours of electricity . . . (and) . . . that the power would have supplied about 80 average homes. The project's sponsors reported that wind measurements at the site indicated that January winds had been 20% lighter than normal."

As a "lB" Goal 5 resource, the County recognizes the benefits of reviewing the status of the Whiskey Run energy site, together with other possible sites in an update review of this Plan. It is impossible to designate site-specifically the location of other "1B" wind-energy sites since such designation might include the entire County! A shortage of wind has never been a problem on the South Coast. Howeve, technology does not seem to have developed to a point where commercial wind generation is feasible.

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## IV. CONSERVATION TECHNIQUES

### A. Waste Conversion

An increasingly promising source of energy is through the utilization of discarded products no longer suitable or desirable for their original use. Waste recovery generally can be considered in to major categories, solid waste and biomass.

#### I. Solid Waste

Coos County currently operates two consumat burners near Bandon,
each capable of burning 12 1/2 tons of refuse per day. These two
burners are scheduled to be moved to an approved disposal site at
Beaver Hill (roughly equidistant from Bandon and Coos Bay near ILS.
Highway 101) in mid 1980. The county will also install two 50-ton 172-tocapacity burners at the same site for a total capacity of 125 tons,
slightly more than the estimated county-wide daily disposal rate of
approximately 100 tons.

Taking advantage of an innovative pit system designed by the County Road Department, the burners will be capable of generating steam sufficient to provide considerable electrical generating capability upon installation of proper equipment. In addition to this recovery of heat energy, the new site also will continue the county's policy of presegregating refuse to allow for both recycling and reuse of various other waste disposed (such as metal).

#### Biomass

The use of biomass waste (here defined as decayed vegetable matter) in Coos County will largely occur through the recovery of wood waste, especially from slash (non-merchantable wood remaining after

logging) that would normally be burned on-site. The two major constraints to this effort will be:

- Determining a method of wood waste collection and transport that does not require more energy than that to be obtained from burning the recovered wood;
- ii. Determining whether the long-term effects of removing wood waste (that is potential humus) will be acceptable for ensuring continuing soil productivity for tree growing.

Coos County's relatively poor agricultural soils in terms of crop production suggest that use of agricultural wastes (such as crop stubble) for the production of fuel such as ethanol will be a less promising source of energy.

#### B. Land Use Patterns

The eventual patterns of land use (residential, industrial and commercial), and how they relate to one another, will have an important effect on the amount of energy required for consumption in the county. Although most of the energy-related effects will pertain to use of energy for transportation, it is useful to consider each major type of land use as well.

## I. Industrial

Energy savings for this use especially deal with transportation, specifically access of the site to appropriate and adequate transportation. Although it is sometimes desirable to locate industries within city limits, several important factors argue against such an artificial requirement in Coos County:

 i. As noted in the Economic Element, suitable industrial land is a very scarce commodity locally. Designating

- sufficient sites for industry requires use of the few suitable sites available.
- ii. Many of these sites are located outside UGBs along the major transportation corridors of U.S. 101 and OR 42.
- iii. The existing system of cities in Coos County encourages a significant level of commuting even though industries are located near most of these cities. Selection of sites along major transportation corridors in or near committed areas is not expected to encourage further commuting but but will take advantage of the important access available on these corridors.

### 2. Commercial

New commercial uses are expected to occur in major areas:

- i. inside Urban Growth Boundaries
- ii. in Rural Centers (see Rural Housing Element)
- iii. in established outlying committed commercial areas such as Laurel Grove.

Within these areas, energy savings will largely result from the discourage of ship commercial along major arterials. (Ship commercial is here defined as a series of adjoining businesses located along a major arterial), where access is gained to each individual business by a driveway directly from the arterial). The advantage of avoiding such strip commercial, whether through use of clustered shopping, shopping centers, open or closed malls, frontage roads, or other, is that the arterial's main function of providing mobility (rather than land access) will be protected. Congested arterials not only cause the use of more fuel because of stop-and-go traffic

but also may necessitate the eventual expenditure of money and energy to build bypass arterials to relieve congestion.

### 3. Residential

Energy savings in this category can occur in several forms given Coos County's particular geography and topography.

- i. The Comprehensive Plan designates a certain amount of land for rural residential purpose, based on a series of weighting criteria, to allow and encourage people to achieve some degree of self-sufficienty in food and animal production. Food produced on a residential site represents costs savings not only to the individual but also to the economy because of the reduced food transportation requirements.
- ii. The Rural Housing process in the Comprehensive Plan also encourages fill-in development of identified Rural Centers and other areas committed to residential use. This represents a very significant savings on costs for new road construction.
- iii. The Housing Element also awards considerable "weight" in selection criteria to sites having access to existing roads; this, too, represents energy savings by encouraging development near existing road systems.

#### 4. Transportation

The Transporation element discusses in more detail several methods for promoting energy conservation, including:

- i. development of alternative public mass transit plans;
- ii. protecting industrial sites with rail access and finding

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#### REFERENCES

Pacific Northwest Wind Power Resource Assessment by Robert W. Baker,

Department of Atmospheric Sciences, Oregon State University

USDE, "Energy from the Winds"

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## 5. URBANIZATION

- 5.1 GENERAL OVERVIEW
- 5. 2 LAKESIDE
- 5. 3 NORTH BEND
- 5. 4 COOS BAY
- 5.5 BAY AREA
- 5.6 EASTSIDE
- 5.7 COQUILLE
- 5.8 POWERS
- 5.9 MYRTLE POINT
- 5.10 BANDON

## 5.1 GENERAL OVERVIEW

INTRODUCTION

DEFINITIONS

STATEWIDE GOAL REQUIREMENTS

FUNCTION OF URBANIZATION ELEMENT

OUTLINE OF METHODOLOGY USED TO
DETERMINE URBAN GROWTH BOUNDARIES
Introduction
Population Projections
Conversion to Housing and Land Needs
Potential Residential Land
Rationale for Suitability Criteria
Rationale for Different Density
Assumptions
Additional Considerations Relating
to Density Assumptions
Land Committed to Urban Development
Industrial and Commercial Land Needs
Recreational and Open Space Needs

AGRICULTURAL LANDS

FOREST LANDS

SOIL SUITABILITY FACTORS

PUBLIC FACILITIES

FINAL DETERMINATION OF UGB

## 5. 1. GENERAL URBANIZATION

### 1.1 INTRODUCTION:

Coos County's Comprehensive Plan develops a coordinated program with each city to accommodate future urban growth where a demonstrated need to expand into unincorporated areas is established. In addition, the Plan identifies unincorporated communities that are already <u>substantially committed</u> to development of urban character. Lands that are either (i) needed for future urban development or (ii) substantially committed to urban development, are considered available for urbanization and normally included within an <u>Urban Growth Boundary</u> (UCB). The area within the UCB is known as an Urban Growth Area (UCA).

### 1.2 DEFINITIONS: [Source: Statewide Planning Goals]

"URBAN LAND: Urban areas are those places which must have an incorporated city. Such areas may include lands adjacent to and outside the unincorporated city and may also: (a) Have concentrations of persons who generally reside and work in the area (b) Have supporting public facilities and services."

"URBANIZABLE LAND: Urbanizable lands are those lands within the urban growth boundary and which are identified and (a) determined to be necessary and suitable for future urban services and facilities, (b) can be served by Urban facilities and services, and (c) are needed for the expansion of an urban area.

"BUILDABLE LANDS: Refers to lands in urban and urbanizable areas that are suitable, available and necessary for residential use."

<u>Discussion:</u> The definition of "urban," therefore, includes areas on the fringe of cities which have population densities and public facilities such as central sewer or water which are characteristic of an urban area. This clearly identifies such communities as Charleston, Barview, Bay Park, Bunker Hill, Libby and Millington as "substantially committed to urbanization."

### 1.3 STATEWIDE GOAL REQUIREMENTS

The following section is a summary of the provisions of Goal #14 (Urbanization) and Goal #10 (Housing), which ties in closely with urbanization.

<u>Urbanization Goal</u>: "To provide for an orderly and efficient transition from rural to urban land use. Urban growth boundaries shall be established to identify and separate urbanizable land from rural land.

"Establishment and change of the boundaries shall be based upon consideration of the following factors:

- Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;
- (2) Need for housing, amployment opportunities and liveability:
- Orderly and economic provision for public facilities and services;
- (4) Maximum efficiency of land uses within and on the fringe of the existing urban areas;
- (5) Environmental, energy, economic and social consequences;
- (6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest projority; and,
- (7) Compatibility of the proposed urban uses with nearby agricultural activities. . . .

"Establishment and change of the boundaries shall be a cooperative process between a city and the county or counties that surround it. . . .

"Land within the boundaries separating urbanizable land from rural land shall be considered available over time for urban uses. Conversion of urbanizable land to urban uses shall be based on consideration of:

- (1) Orderly, economic provision for public facilities and services;
- (2) Availability of sufficient land for the various uses to insure choices in the market place;

-2-

- (3) LCDC goals; and,
- (4) Encouragement of development within urban areas before conversion of urbanizable areas."

Housing Goal: "To provide for the housing needs of citizens of the State.

Buildable lands for residential use shall be inventoried and plans shall encourage the availability of adequate numbers of housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density."

### 1.4 FUNCTION OF URBANIZATION ELEMENT

Each city's UGA proposal is subjected to an analysis which provides the factual data to satisfy the seven-part test in the Urbanization Goal. In addition, criteria are developed to delineate land already "substantially committed" to urban development; such areas can be considered for inclusion within UGA.

Lands still available and suitable for infill development within city limits and other urbanized areas are assessed for their capacity to fulfill "demonstrated need." The basis of the analytical process used to make the necessary findings is outlined in the following sections. This is followed by the Urbanization elements for the individual cities.

#### 1.5 OUTLINE OF METHODOLOGY USED TO DETERMINE URBAN GROWTH BOUNDARIES.

#### 1.5.1 Introduction

The most fundamental requirement of the Urbanization Goal (#14) is that there must be a "demonstrated need" for land included in the UGA to accommodate projected population increases. Four basic classes of land needs are considered:

- (i) Residential
- (ii) Commercial
- (iii) Industrial
- (iv) Recreation and other open space.

At the same time, consideration is given to conserving agricultural land and

justification is provided for any commitment of agricultural and forest lands to urbanization.

## 1.5.2 Population Projections

Future land needs are based on reasonable estimates of future population for

- (i) The individual city, and
- (ii) The unincorporated areas inside a UGA "study area."

  Initially, population projections by the City of Coos Bay planning staff or by Coos-Curry Council of Governments for all other cities is considered as the base line for determination of need. A variety of methods are available to predict population. CCCCG has considered alternative projections and selected the most reasonable and acceptable figure on the basis of recommendations from its Citizen Plan Advisory Committees. The procedure followed has been to compare the city or city/CCCCG projection with the following three alternatives, as consistent with the methods used in the overall county population estimates [Section X].

Population projections based on:

- (i) Statistical analysis of the city's population for a selected period.
- (ii) Statistical analysis of city's percentage share of the total county population for a selected period, based on the Portland State University "High" projection.
- (iii) Assumed continuation of the city's 1978 percentage share of the total county population, based on P.S.U. "High" projection, implying that the city will grow at the same rate as the county.

-4-

5.1-2

One of these alternatives is selected as the basis for the determination of future land needs. In order to maintain internal consistency between the population projections established for the individual cities, coordination has occurred between the respective planning staffs. This ensures that the differential growth rates of the cities are accounted for, and that the sum of the projected city populations, plus that of the unincorporated areas, equals that projected for the county as a whole. [See County Population Projections, Section 4.1.]

In the Charleston/Barview and Bay Park/Millington areas, a somewhat different approach is taken, due to the fact that definitive statistical data for the urbanized area is not directly available from the usual sources.

### 1.5.3. Conversion to housing and land needs

Population estimates are converted to housing needs using the household size assumptions from the "Gross Housing Needs" section. Estimated housing needs are expressed in four 5-year increments (after 1980) and rounded to the nearest 5 units.

In addition, a certain extra provision is made to raise the vacancy water Harring."

rate to an acceptable level (see Gross Housing Needs Asection 4.5, for the general methodology). Some further assumptions are made to apply this methodology to individual cities.

The county-wide average vacancy rates for 1978 (1.6% for owner-occupied homes, 1.97% for rentals)

are adjusted to reflect the historic variations among the different cities. It is assumed that the 1978 vacancy rates for the cities differ from the county-wide average in the

-5-

of these calculations, the same tenure pattern within the city as for 1970 is assumed. As for gross county-wide housing needs, it is estimated that vacancy rates will rise to an acceptable level by 1985. (See Section [4.5], the housing needs discussion of this)

same proportion as they did in 1970 (U.S. Census figures). For the purposes

At this point, two rough estimates of land needs are made. It is first assumed that all the housing needs can be met at an (average) urban gross density of 5 dwellings/acre. Then another estimate is made on the basis of half this gross density (2.5 dwelling units/acre). This allows for the probability that insufficient land is suitable for development at the higher density. The next stage of analysis examines the suitability of the available lands inside and outside city limits, and the distribution of different classes of suitability across the landscape. This allows the identification of a logical area in which to accommodate growth most efficiently. Depending on the topography and other factors, it may be necessary to include certain acreages of unsuitable land in order to delineate a growth area with a logical and manageable shape.

1.5.4 Potential residential land: Suitability/Availability assessment.

Goal #10 (Housing) refers to "buildable lands" which are defined as shown in Section 1.2 above. The Comprehensive Plan is responsible for providing for sufficient acreage of lands which are "suitable, available and necessary" for future urban development. These lands should be located within a UGA. The next phase of the urbanization study assesses the suitability and the availability of potential residential lands; both

(i) within the city and

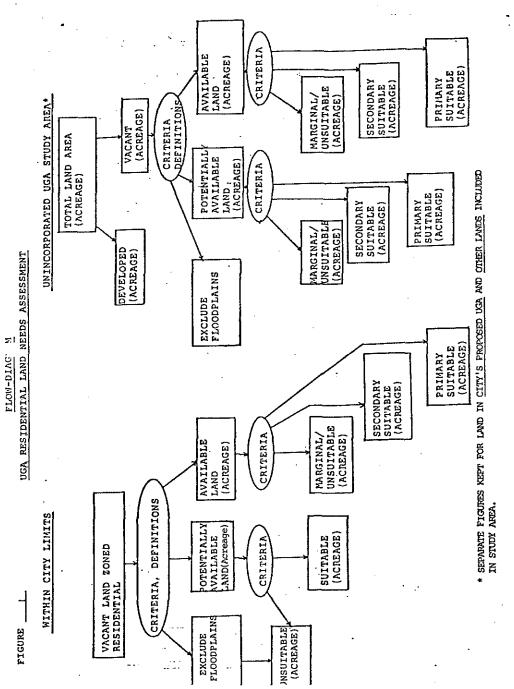
(ii) within the UGA study area as proposed by the cities.

For a diagrammatic representation of the process see the Flow chart, Figure |

The following paragraphs detail the criteria, assumptions and graphic techniques used.

-6-

5.1-3



A. Within City Limits

Step 1. Identify vacant lands All vacant parcels of land proposed for residential use are identified from the Coos County Land Use Inventory. These parcels are __marked on the Coos County Assessor's maps showing individual tax lots.

Step 2. Classify vacant residential land according to availability
Vacant land is divided into two classes of availability, as follows:

- Available land is defined as unplatted parcels which are wholly undeveloped.
- potentially available lands are undeveloped platted lots or groups of lots, which are not otherwise unsuitable for development. These lots are typically part of a yard to an adjacent dwelling, and are considered as potentially available for infill development, depending on the wishes of the owner. A small amount of this type of development occurs within cities each year.

  In addition, land in floodplains is "screened out" at this stage as unsuitable for residential development.

## Step 3. Calculate acreage

Acreages are summed for these two categories. ["Potentially available" lands are regarded as an extra reserve of land which provides for incidental development (often owner-built), and provide flexibility in the supply of land.]

## Step 4. Assess suitability of vacant available lands.

Suitability for development is assessed according to a set of brief, practical criteria. Other aspects of suitability are considered later. Land is divided into:

818

- (i) Primary suitable lands,
- (ii) Secondary suitable lands, and
- (iii) Marginal/unsuitable lands.

-7-

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Since lands in the floodplains have already been eliminated, suitability for development can be defined primarily in terms of slope. Other natural hazards, like unstable soils, are treated as factors which further intensify hazards due to steep slopes. Definitions are as follows:

"Primary unsuitable" - 0-15% slope, no other natural hazards

"Secondary unsuitable" - 15-30% slope, no other natural hazards or 0-15% slope, additional natural hazard.

"Marginal/unsuitable" - 30%+Slope, no other natural hazards, or 15-30% slope, additional natural hazard.

Areas of land in each category are analyzed using an overlay mapping technique, and measured.

## B. Within Unincorporated UGA Study Area

A similar method is followed in the unincorporated portion of the UGA study area. The main difference lies in the criteria used to determine "potentially available land." Separate acreage totals may be kept where additional land outside the city's proposed UGB has been brought into the study area.

#### Step 1. Identify vacant lands

All vacant parcels are identified from the Coos County land use inventory, and marked on the Coos County Assessor's tax lot maps.

#### Step 2. Classify vacant land according to availability;

- (i) "Available" vacant land is defined as any wholly undeveloped parcel.
- (ii) "Potentially available" vacant land is defined as any parcel in excess of 2.5 acres with only one dwelling. As with potentially available lands within the city, it is assumed that an owner living on the property may wish to partition the land and make some of it available for development. The minimum lot size in an urban residential area without

urban services is 1 acre. Thus, deducting 1 acre for the dwelling, a 2.5 acre parcel should leave 1.5 acres potentially available for development. About 0.5 acre is assumed to be necessary for road access, setback requirements and other services or rights-of-way. This leaves 1 acre potentially available for another dwelling.

As within city limits, land which lies within the floodplain is initially "screened out" as unsuitable for residential development. However, it may be reconsidered for industrial development [See Section 1.5.9 below]. This also automatically screens out most of the acreage currently in agricultural use.

## Step 3. Calculate acreages:

Acreages are summed for these three categories. As before, "potentially available" land is regarded as a reserve to provide for flexibility in the supply of land.

- Step 4. Assess suitability of vacant "available" and "potentially available" lands.

  Suitability for development is assessed using the same criteria as within city limits, and vacant lands are divided into:
  - (i) "Primary suitable" lands
  - (ii) "Secondary suitable" lands
  - (iii) "Marginal/unsuitable" lands

This step also uses an overlay mapping system. Acreages in each category are measured.

#### Summary:

The combined totals of primary and secondary suitable land inside and outside city limits are an inventory of land which is available and suitable for urbanization. The suitable potentially available land inside city limits plus the marginal/ unsuitable land in the UGA Study Area are regarded as a vacant reserve to provide for market flexibility.

5.1-5

## ...1.5.5 Rationale for Suitability Criteria

There is no hard and fast rule regarding the relationship of development suitability to slope. However:

- (i) A review of hillside ordinances adopted by various cities and counties in Oregon and California suggests that a 30% slope is a common cut-off point for suitability of land for residential uses.
- (ii) The current Coos County "Road Policy Standards for Dedicated Roads and Streets" requires paving of roads with slopes in excess of 12%, and prohibits roads with slopes in excess of 16%. Since areas with slopes exceeding 15% will require curving of roads (traversing the hillside) to meet those requirements, the use of land for roads will remove considerable area of land otherwise available for residential uses.
- (iii) Figures on housing costs supplied by Salem Home Builders' Association indicates that construction costs rise with increasing slope, and added costs approach 100% at 18% slopes [ref.] *Non-conventional building techniques become necessary with steep slopes. More expensive homes usually mean larger lot sizes and lower densities.

#### 1.5.6 Rationale for different density assumptions

It is therefore assumed that these classes of land will exhibit distinctly different types and densities of development. For the purposes of the UGA studies it is assumed that "primary suitable" land can in theory be developed at a maximum overall density of 5 dwelling units per acre (5DU/ac). Secondary suitable land might be developed at a maximum overall density of 2.5 DU/ac. Marginal/unsuitable lands basically are so difficult to develop that it is meaningless to assume any overall density figure, though lot sizes in an urbanizing area might range from

l acre to 5 acres. Five dwelling units/acre corresponds to a typical fully-developed urban residential density. (For example, *Coquille, *developed residential acreage*319 acres; dwelling units, approximately 1625; density approximately 5 dwellings/acre) Based on the discussion above that "secondary suitable" land has definite limitations imposed by the slope and the additional area required for roads, the overall maximum density of "secondary suitable" land will be about 2.5 d.u./acre. This estimate is based on a further assumption that at the upper limit of the slope class (nearly 30% slopes), "secondary suitable" land areas will require the inclusion of some parcels of land which are unsuitable for development.

A greater density may be achieved on "secondary" lands having public water and sewer, but lesser on those having neither public water nor public sewer. For marginal/unsuitable lands, it is assumed that scattered subdivision development may occur on small natural benches where soil conditions are stable or using unconventional techniques like pole buildings. This may occur especially on the more favorable south or west-facing slopes. These lands are treated as a built-in reserve for flexibility also (like "potentially available lands" in the city limits) and are not figured into the needed total of "buildable lands." This is because these lands are basically incapable of development at truly urban densities (1 d.u./acre or greater).

## 1.5.7 Additional considerations relating to density assumptions.

The above assumptions are based on the theoretical maximum density at which land may be developed. However, these assumptions may be shown to be somewhat unrealistic when certain other factors are considered. Such additional factors include:

(i) Complexity of Topography - Pockets of "primary suitable" land may occur as narrow linear ridges, for instance, where for practical purposes a developer may choose to subdivide using the same lot pattern as on the surrounding slopes.

-11-

5.1-6

- (ii) Marketability: A developer may decide to treat these level ridge tops as high-priced "view-lots" and sell them as one-acre parcels, for instance, rather than at some theoretical maximum density.
- (iii) <u>Buyer preferences</u>: Where developers simply sell vacant lots with services and individual homes are custom-built, the buyer may prefer to buy more than one lot to retain more privacy. This reduces the effective density of the subdivision.

Thus, the preferences of the developer and buyer often have a major influence on the character and density of an urbanizing area as it evolves over time. This is in spite of the desire of the municipality to achieve a higher density so that services can be provided more cheaply. While the standard market forces tend to urge developers to maximize density, in reality countervailing forces like those mentioned above come into play. While the standard density assumptions are used to provide an estimate of the minimum acreage needed for urbanization, other factors are taken into account to reflect special conditions in and around the individual cities.

### 1.5.8. Lands committed to urban development

In addition to land needed for urban expansion, another primary determinant of the urban growth area must be considered: hose lands which are already committed to urban development. In certain cases, development may exist at densities which can be considered urban, or some urban level services may already be available outside of city limits. The area involved may in fact, with infilling of vacant lots, provide for more land than the adjacent city can strictly justify urder "need."

Such areas should normally be considered urbanized and placed with a UGA, so as to encourage infilling and the continued provision of urban level services in a logical thack would be no reason to include in a UGA areas and orderly manner. However, however, where urban development is found in pockets at some distance from city limits and would not form a logical area within which services could be economically provided.

-12-

## "Committed to urban development" can be defined as follows:

- i. Iard in parcels of less than 5 acres, in close proximity to a city, which is substantially developed (ie. at least 50% of the parcels are built upon), and
- ii. Where urban-level facilities (central sewer or water supply) are already provided by a special district or city utility.

The use of this land category is in keeping with the Goal 14 requirement to consider:

- "orderly and economic provision for public facilities and services"
- -"maximum efficiency of land uses within and on the fringe of the existing urban area."

## 1.5.9 Industrial and Commercial land needs

Determination of land needs for industry and commerce presents a set of problems quite different from those involved in predicting residential land needs. Land for industrial and commercial uses should meet certain strict locational criteria, but while steeply sloping land must be ruled out, poorly drained or floodplain land can often be used where it is considered generally unsuitable for housing.

## Some site criteria for industrial uses are as follows:

- Close to road, rail or waterway facilities.
- ii. Level land (or nearly so).
- iii. Large vacant tracts desirable (aproximately 30 acres).
- iv. May be in flood fringe area (or otherwise poorly drained land).
- v. Need not be in city or UGA if water and sanitary facilities are provided by developer.

## Some site criteria for commercial uses are as follows:

Immediately adjacent to main road or within downtown area.

-13-

5.1-7

- Level site preferable but not essential.
- iii. Small sites usable, but some larger vacant tracts desirable (10 acres).
- iv. May be in flood fringe area (or otherwise poorly drained land).
- v. Should be in city or UGA.

It is usually possible to assume that current city zoning for industrial and commercial use follows these criteria, and that vacant land in these zones is either developable or could be rendered developable at reasonable cost. In addition, land in these zones which is in other uses, for example residential, may undergo a transition to commercial or industrial use in the future. Normally, with the higher values associated with zoned commercial and industrial land, there is sufficient incentive to bear high "front end" costs of site preparation. Therefore vacant, currently zoned industrial and commercial land within the city is not subjected to the same type of suitability analysis as residential land. However, the size of parcel is an important factor, since 100 acres in 20 five acre lots is of much less utility than 5 lots of 20 acres. Additionally, availability is difficult to assume, since much of the land (particularly industrial) may be held for future expansion in conjunction with adjacent land in the same ownership. It is possible that most of the vacant and theoretically available industrial and commercial land within a city is in fact unavailable to a new firm coming into the area. This is further evaluated in the studies of individual city UGAs.

Therefore, the process is as follows:

#### Industrial and commercial land

- i. Identify acreage of vacant currently zoned land in city-
- ii. Identify acreage of vacant currently zoned land in UGA.
- iii. Identify acreage of vacant currently zoned land in rural portion of Planning District.
- iv. Assess (availability and utility) according to the criteria

discussed above (ownership and location and parcel size).

See Economic Development component for allocation of future employment and land needs by area (to each Planning District).

This procedure will provide an approximation of future land needs. The available land is then assessed for its adequacy to meet these needs, bearing in mind the ownership, location and parcel size of vacant lands. It may prove necessary to designate suitable land in the surrounding rural district to meet estimated needs if suitable land cannot be found in the UGA. A number of substantial industrial operations are located in rural areas. It is evident that many such operations like small mills and log handling sites do not require urban level facilities, and therefore need not be accommodated within UGAs.

## 1.5.10 Recreational and Open Space Needs

The traditional planning approach to recreational land needs has been to specify a certain acreage per thousand population. This has proved meaningful in large metropolitan areas, when funds can be made available for on-going programs of land acquisition. However, small cities like those in Coos County are normally only able to increase the recreational land base by land private donation, access agreements, or similar means. It is not feasible to program the provision of additional acreages of recreational land by a certain date. Thus, a different approach is needed, based on the following rationale:

Increased needs may be met by increased expenditure on

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-14-

Volume I Part 2

facilities, maintenance or new recreational programs using the existing land or resource base.

- ii. Open space requirements may be met by conserving the open character of agricultural or floodplain land within cities, or steep wooded hillsides through appropriate zoning.
- iii. Existing open space or recreational resources can be made more usable by improving public access (boat ramps, access agreements, trails).

See the individual city recreational and urbanization elements for specific means of improving recreational opportunities.

## 1.6 AGRICULTURAL LANDS

# 1.6.1 Commitment of agricultural lands to urbanization

The urbanization goal requires the retention of agricultural lands where possible, with some consideration being given to the compatibility of urbanization with agricultural practices (see Section 1.3 above). Major agricultural holdings are initially excluded from consideration for residential use, due to the fact that they normally occur in floodplains (see Section 1.5.4 above). Some SCS class I-IV soils occur elsewhere in the UGA study area, however. These are mapped, and acreages computed by existing use. It may be possible to draw a boundary which excludes certain areas of agricultural soils.

## 1.7 POREST LANDS

## 1.7.1 Commitment of forest lands to urbanization:

Though forest lands may be included within a UCA, it is preferable to exclude better site class forest lands when a clear alternative exists. Other factors which are taken into account are land ownership and the size of holdings necessary to carry on effective forest management. Generally, forest lands in smaller holdings are preferred for future urbanization.

## -16-

## 1.8 SOIL SUITABILITY FACTORS

- 1.8.1 Suitability for roads and foundations: Soil Conservation Service survey data includes a rating of suitability for road building and foundations for low buildings based on soil texture, slope, subsurface geology, and other factors. There may be significant differences within the UGA study area. These factors are mapped, and in certain cases, indicate areas to be preferred for inclusion.
- 1.8.2 Suitability for septic systems: In the absence of central sewer service in the UGA, which normally is far more expensive to provide than central water, suitability for septic systems may be an important factor, based on soil permeability, and texture, slope, and other factors. This factor is already in a in a sense built into the process, in that the slope has already been used as a major determinant, and this in turn affects septic suitability on a given soil type. Mapping of this factor in certain cases indicates areas to be preferred for inclusion.

#### 1.9 PUBLIC FACILITIES

## 1.9.1 Effect of public facility improvements on UCB

Public facilities should be regarded as the key to the final determination of the UGB. Cities may have proposals to extend water or sewer services or roads into a particular area. Special districts may already have sewer or water lines in existence. The key question is: Which areas can be most readily and cheaply served with all urban facilities; i.e., sewer, water and roads by extension from existing facilities?

Factors to consider are;

- Distance from existing facilities.
- Topography gravity flow for sewers

-need for pumping for water or sewage

At this stage, areas which might otherwise have suitable vacant land may be elimated from consideration.

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## 1.10 FINAL DETERMINATION OF UGB

- 1.10.1 It now remains to make the final documentation of the site-specific location of the Urban Growth Boundary. At this point, the products of the process
  - A statement of acreage needed
  - A map of available, suitable lands
  - A map of lands committed to urbanization.
  - Maps showing agricultural and forest lands.

Bearing in mind that the first priority is to develop within city limits, secondly, within other lands committed to urbanization, and thirdly, elsewhere on the basis of need, the final determination is made.

The UGB normally follows property boundaries, since it may be impractical to include only part of any particular holding. There may also be natural or cultural features which indicate a logical boundary, for instance a ridge, stream or road.

Regardless of the shape of the finally agreed upon UCB, it should achieve the greatest efficiency in land use and service provision, with the least commitment of natural resources.

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5.2 LAKESIDE

The urban growth boundary that the City of

Lakeside and Coos County have agreed upon is

the city limits of Lakeside. Consequently, the

County does not include an urban growth boundary

report here. Justification for the chosen

boundary may be found in the Lakeside Comprehensive

Land Use Plan.

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5.3 NORTH BEND

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NOV 0 6 1981 BOARD OF COMMISSIONERS

NOV 0 6 1981 BOARD OF COMMISSIONERS

COUNTY OF COOS

PLANNING COORDINATOR

STATE OF OREGON

PLANNING COORDINATOR

STATE OF OREGON

DY

LAMBER ANN WILSON

COUNTY CLERK

BY

LAMBER DEFUTY

ORDINANCE

ORDINANCE

FOFTH Bend; Oregon

OR 81-018

THE BOARD OF COMMISSIONERS for the County of Coos ordains as follows:

SECTION 1. TIT

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This ordinance shall be known as "Coos County Ordinance Number OR SI-018, an Element of the Coos County Comprehensive Plan".

SECTION 2: AUTHORITY

This ordinance is enacted pursuant to the provisions of ORS 203.035 and ORS Chapter 215.

SECTION 3. PURPOSE

The purpose of this ordinance is to adopt an amended urban growth boundary for the City of North Bend, Oregon. This ordinance also establishes land use designations for the City of North Bend urban growth area.

SECTION 4. FINDINGS

The Board of Commissioners of Coos County finds that:

1. Statewide Planning Goal 14, Urbanization, requires that urban growth boundaries be established to identify and separate urbanizable land from rural land. Goal 14 further provides that establishment and change of urban growth

ORDINANCE - 1

boundaries shall be based upon consideration of the following factors:

- (1) / Demonstrated need to accommodate longrange urban population growth requirements consistent with LCDC goals;
- (2) Need for housing, employment opportunities, and livability;
- (3) Orderly and economic provision for public facilities and services;
- (4) Maximum efficiency of land uses within and on the fringe of the existing urban area;
- (5) Environmental, energy, economic and social consequences;
- (6) Retention of agricultural land as definded, with Class I being the highest priority for retention and Class VI the lowest priority; and,
- (7) Compatibility of the proposed urban uses with nearby agricultural activities.
- 2. On September 26, 1981 the Coos County Board of Commissioners adopted an ordinance known as "The Urban Growth Boundary Ordinance for the City of North Bend, Oregon, an Element of the Coos County Comprehensive Plan." The purpose of that ordinance was to adopt an urban growth boundary for the City of North Bend and to establish land use designations for the City of North Bend's urban growth area. The boundary and land use designations were also adopted

ORDINANCE - 2

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by the City of North Bend as is required by State-wide Planning Goal 14, Urbanization, and Land Conservation and Development Commission policy. The boundary and land use designations were subsequently submitted to LCDC for acknowledgement pursuant to ORS 197.251 along with the remainder of North Bend's comprehensive plan and its implementing ordinances.

- 3. The Land Conservation and Development Commission reviewed North Bend's proposed comprehensive plan in May , 1981, and found that the urbanization element of this proposed comprehensive plan required more justification in order to satisfy Statewide Planning Goal 14.
- 4. Based upon LCDC's review and a revised analysis of the factors listed in Goal 14 and the North Bend comprehensive plan, the Board finds that the urban growth boundary for the City of North Bend described in "Exhibit "A", attached hereto and incorporated herein by reference, is justified and appropriate pursuant to Statewide Planning Goal 14.
- 5. "Exhibit A", also describes land use designations for the City of North Bend urban growth area which are appropriate and in conformance with Statewide Planning Goal 14 and the North Bend comprehensive plan.
- 6. The rationale and justification for establishment of this urban growth boundary and the land use designations within this urban growth boundary are

ORDINANCE - 3

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are set forth in "Exhibit B", attached hereto and incorporated herein by reference, and in the North Bend comprehensive plan.

## SECTION 5. REPEAL OF PRIOR ORDINANCE

The ordinance known as "The Urban Growth Boundary ordinance for the City of North Bend, Oregon, an Element of the Coos County Comprehensive Plan", adopted by the Board of County Commissioners on September 21, 1980, is hereby repealed.

## SECTION 6. ADOPTION OF URBAN GROWTH BOUNDARY

The boundary described in the attached "Exhibit A" is hereby adopted as the urban growth boundary of the City of North Bend, Oregon.

## SECTION 7. ADOPTION OF LAND USE DESIGNATION

The land use designations indicated on the attached "Exhibit  $A^{\mu}$  are hereby adopted as the land use designations for the City of North Bend urban growth area.

ADOPTED THIS 2 day of formula, 1981.

Recording Secretary

Approved as to form:

Office of County Counsel

Chaliman Confissioner

Commissioner

ORDINANCE -4

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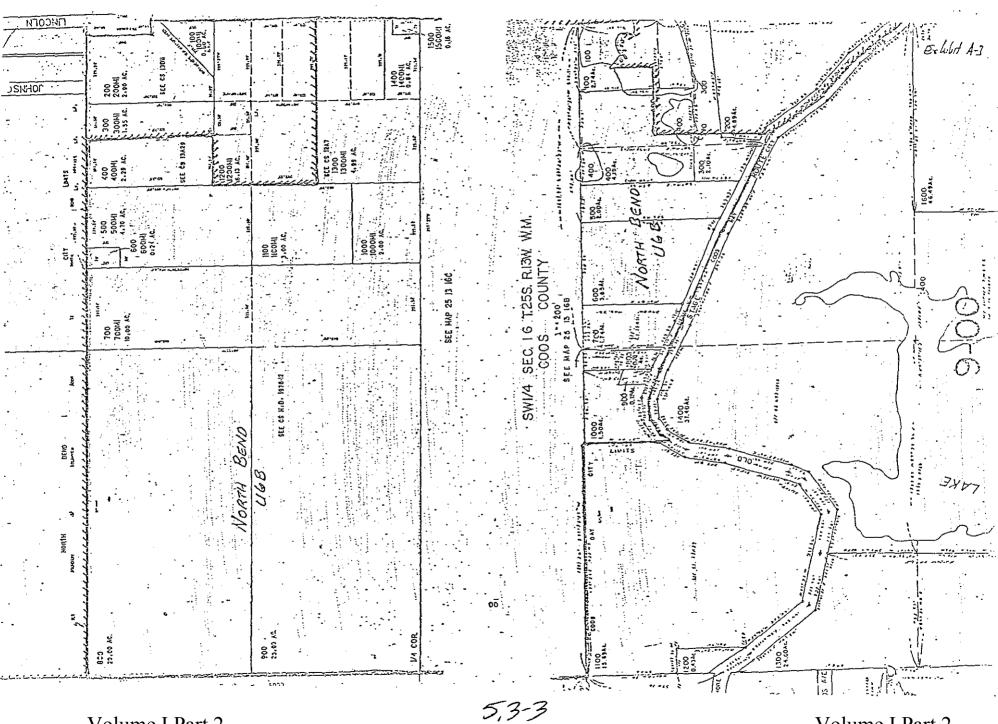
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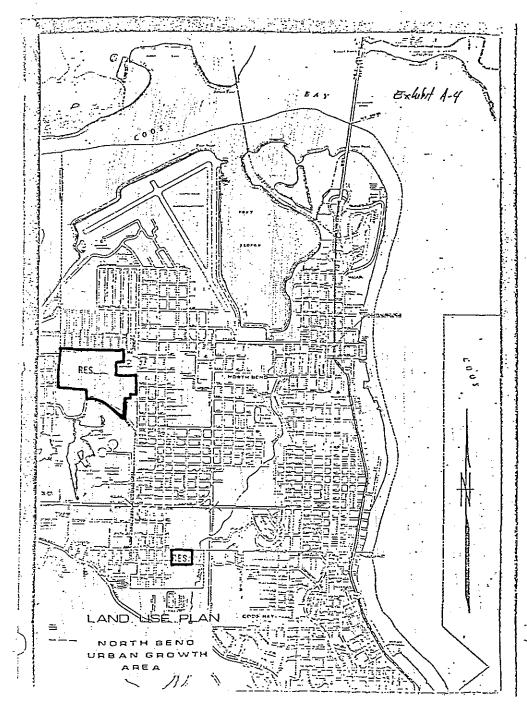
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Volume I Part 2 840



- NORTH BEND <del>DRAFT</del> URBANIZATION ELEMENT August, 1981

## . I. Population Projections

As established on page 20 of the Plan Inventory, the City of North Bend is expected to grow at the rate enumerated below.

## Table 1

Population Projection Within City Limits

1978 -- 10,300 1980 -- 10,465 1985 -- 11,475 1990 -- 12,502 1995 -- 13,471 2000 -- 14,996 (15,000)

PLANNING COORDINATE

This projection is based on the assumption that North Bend will maintain the same percentage of the county's population through 2000 using the PSU high estimate. Accordingly, provision must be made for an increase of 4,700 persons by the year 2000.

## II. Land Needed for Urbanization

A. Housing Needs

There are 3,593 occupied dwelling units in North Bend (1980). By using the 1980 population figure, the average number of persons per dwelling unit can be calculated. By comparing this figure with the trend over the last ten years, a trend to small household size can be shown.

Table 2

Average Number of Persons Per Dwelling Unit

•	Number of Dwelling Units	Population	Persons/ Dvelling Unit
1970	2,453	8,553	3.49
1975	2,882	9,000	3.12
1978	3,439	10,300	2.99
1980	3,593	10,465	2.91

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The trend to smaller household size is expected to continue into the mid 1980's with a relatively stable household size by 1990 as projected by the State Housing Division. Household size can be used to make the following housing need projection.

Table 3
Projected Housing Need

Population	Persons/ Dwelling Unit	Dwelling Unit	Difference
1980 - 10,465	2.91	3,593	. <del>-</del>
1985 11,475	2.72	4,219	626
1990 12,502	2.65	4,700	481
1995 13,741	2.65	5,185	485
2000 14,996	72.65	5,659	474
			2,066

## .B. Nacancy Rates

When planning for housing in an area, provisions should be made for the maintenance of an adequate vacancy rate. It is desirable to have a vacancy rate that balances the economic and social interest of a community. This is an important factor, for without it housing prices may become artificially inflated because of the restricted supply.

The ratio of owner occupied dwellings to renter occupied dwellings has been relatively constant as shown by the comparison of the 1960, 1970, and 1978 Coos County Housing mixes.

		1960	1970	1978
Owner-Occupied Units		66.7%	68.9%	67.9%
Renter-Occupied Units	•	33.3%	31.1%	32.1%

Sources: 1960 and 1970 Census of Housing and estimates made by the Housing Division, State of Oregon.

Table 4

Additional Housing Units Needed to Maintain a Desirable Vacancy Rate

Year	Occupied Units	Vacancy Rate	Rumber of <u>Vacant Units</u>	Total Units	Additional Vacant <u>Units Needed</u>
1980	3,593	3.28	118	3,711	=
1985	4,219	3.28	138	4,357	20
1990	. 4,700	3.28	154	4,854	16
1995	5,185	3.28	170	5,355	16 .
2000	<b>5,</b> 659	3.28	185	5,844	<u>15</u>
					67

A total of 67 additional housing units will be needed by the year 2000 to help maintain an acceptable vacancy rate. This figure combined with the housing projection shows a need for 2,133 dwelling units by the year 2000

### C. Housing Needs By Type

The previous projections show the total number of housing units needed by the year 2000. The next step is to determine housing needs by type. The ratio of single-family dwellings to multi-family dwellings in North Bend has remained constant over the past decade, as shown in the following table:

Table 5
Ratio of Single-Family Dwellings to Multi-Family Dwellings

Dwelling Type	1970		1980
Single-Family	1,472 (60%)	٠.	2,227 (60%)
Multi-Family	981 (40%)		1.484 (40%)

Single-family dwellings are expected to continue to be the major form of housing in North Bend throughout the planning period. Because rising housing costs have somewhat reduced the ability for people to purchase single-family housing, the number of multi-family units is expected to increase as a percentage of the housing mix.

In 1970, 21% of North Bend's population had incomes described as low to moderate. This rate is expected to remain somewhat stable over the planing period.

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It is presumed that the 1978 vacancy rates of 1.6% for owner-occupied units and 1.9% for rental units are lower than the desired vacancy rates for a community. For this reason the following vacancy rates will be utilized to determine the desired vacancy rate for North Bend during the planning period.

To represe	Owner-Occupied Units .	•	-	:					-		2.0%
Sec. 22.19	∷Renter-Occupied.Units				_	_					6.0%

Source: Housing Planning in Oregon,

Using the above figures in the following formula, the desired vacancy rate can be determined:

$$(0/0CC \times 0V) + (R/0CC \times RV) = Vacancy$$

Source: Housing Planning in Oregon, LCDC

Where:

0/OCC = Existing owner-occupied units percentage of housing mìx

= Acceptable owner-occupied vacancy rate

R/OCC = Existing renter-occupied units percentage of housing

# Acceptable renter-occupied vacancy rate (.68 X .02) + (.32 X .06) = vacancy rate .0136 + .0192 = .0328 = 3.28%

Therefore, the desired vacancy rate for North Bend is 3.28%. The next step is to calculate the number of additional housing units needed to maintain a desirable vacancy rate. (The 3.28% figure will be used in the following calculations).

Table 6 Housing Mix

			4.0				
	•	Number of Dwelling Units		Percent Of Mix		Additional Reeded by	
	1980 Total	. 3,711					٠.
	Detached Attached	. 2,227 -1,484	•	60.0 40.0	· ·	- -	•
٠,	<u> 1985 Total</u>	4,357	-		•	•	
	Detached - Attached	2,571 1,786		59.0 41.0		· 344 · 302	•
	1990 TotaT	4,854		•		. •	
	Detached Attached	2,815 2,039		58.0 42.0		244 253	
	1995 Total	. 5,355					
-:	Detached Attached	3,052 2,303		-57.0 -43.0	•	237 264	:
	2000 Total	5,844	,				
	Detached Attached	3,273 2,571		56.0 -44.0		. 221 . 268	
	TOTAL	- ,				2,133	(100%)
	Detached Attached	. '					(49.0%). (51.0%)

## Industrial and Commercial Land Needs

Future land needs for commercial and industrial land needs can be determined by establishing a ratio between the existing population and the number of areas currently in each particular land use. These ratios are then divided into the number of additional people projected for the year 2000 -resulting in the total additional acres needed to satisfy land requirements for both categories. The calculations are shown below:

Table 7 Additional Land Needed for Urbanization

	Existing Population	Acres* <u>In Use</u>	Per Capita Ratio	Increase In Population by 2000	Additional Land Need
mercial	10,300	125	82.4 persons/acre	4,700	57 acres
andustrial.	10,300	- 438	23.5 persons/acre	4,700 -	-200 acres
*(from page	163 and 171,	Plan Invent	ory)		- 1

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The City of North Bend has taken a leadership role in the provision of low and moderate income housing in Southwestern Oregon (Coos and Curry Counties). Through the formation of the North Bend Housing Authority, the only municipal housing authority in the two county area, the City has provided a good supply of low-cost assisted housing. North Bend provides 166 assisted low-cost units as well as 25 units of non-assisted, low income housing with the lowest rental rate structure in the City. Tentative plans include another assisted low rent public housing project of 50 units and the remodeling of the North Bend Hotel to provide additional low-cost housing for the elderly.

The City does not wish to rely on one specific type of housing to meet low and moderate income needs, but desires to have the widest possible range of options or alternatives available for both housing purchasers and renters. These include, but are not limited to single-family dwellings, apartments, duplexes, row houses, prefabricated homes, condominiums, mobile homes and cluster housing. Multi-family housing, cluster housing, and row houses in particular allow for increased densities and lower cost for utilities as well as lower cost for housing in general, as costs of land are greatly reduced.

As stated above, 40% of the dwelling units in North Bend are multi-family units. The number of multi-family units is expected to increase as a percentage of the housing mix by the year 2000 and will accommodate low to moderate income families to the point that the mix is estimated to be:

Single-family 56% Multi-family 44%

Based on the above assumptions, a projection can be made determining additional housing units needed by type.

## III. Determination of Available, Suitable Lands

## A. Land Availability

It is now necessary to determine land availability. The following table shows the number of developed and vacant areas in each major zoning category.

Table 8

••		Total Area	<u>a</u>	Developed Acreage	Vacant Acreage
Residential		1,431	:-	1,003	428
Commercial	٠.	190-		125	65
Industrial		1,042		438	604

Because there is more than enough land in North Bend to accommodate additional commercial and industrial land needs, discussion of these lands will be brief. All 65 vacant commercial acres are suitable for development. 272 acres of the vacant industrial land are suitable for development.

There is no explicit need indicated for additional acres of correctial and industrial land over that which is available within the City limits. It should be noted at this point, however, that economic activity is regional in nature. For this reason economic development is best approached from a regional point of view. The industrial and commercial land needs for the entire estuary are being considered in the Coos Bay Estuary Plan, with North Bend both supplying and demanding a substantial portion of the additional acreage.

### B. Suitable Residential Land

In order to calculate the amount of buildable residential land within North Bend's City limits, non-useable land was subtracted from gross available
residential land. This resulted in 346.3 acres of gross buildable residential
land in North Bend. Non-useable land consists of areas totally unsuitable for
development because of excessive slope, severe drainage problems, areas in
the floodway, or park lands zoned residential. Land needed for support facilities
(roads, sewers, etc.) was then subtracted from gross buildable residential
land, the difference being net buildable residential land. In North Bend

approximately 25% of an acre of residential land is utilized for support facilities (including alleys), according to the North Bend City Engineer. Therefore, there are 259.7 net buildable residential acres in North Bend. The following are the number of net buildable acres available in each residential zone:

RM	(multi-family)		٠.	49.9	Acres
- R5	(5,000 sq. ft.	ຫາກຳຫນຫ)		35.0	Acres
-R6	(6,000 sq. ft.	minimum)		30.6	Acres
_R7	(7,000 sq. ft.	minimum)		134.2	Acres.
	(10,000 sq. 1			10.0	Acres
				259.7	Acres

The net buildable residential land in North Bend can be evaluated as to its suitability for development. Buildable residential land has been classified as suitable, less suitable, and least suitable.

Suitable Lands are those lands which have little or no constraints to development.

Less Suitable lands are those lands having development limitations that can be overcome by special planning design or maintenance, at some additional cost to the developer. Generally, lands classified as less suitable are those with slopes greater than 8% and less than 15% or poorly drained lands (non-estuarine) that require fill prior to development.

Least suitable lands are those lands having severe limitations for development. Lands classified as least suitable are those with slopes exceeding 15% and lands susceptible to flooding. These lands can be developed, but at great expense to the developer and would probably be the last areas within the City to be developed.

The following is an evaluation of the suitability of net buildable residential lands by zoning categories:

Table 9

				•
•	Suitable	Less Suitab	le <u>Least Suitable</u>	Total
RM	39.0	/ 8.9	2.0	49.9
R5	31.8	1.9	1.3	35.0
R6	19.1	11.0	0.5	30.6
' R7	50.3	55.2	-28.7	134.2
-R10	4.0	6.0	0.0	10.0
TOTAL -	144.2	83.0	32.5	259.7

C. Adequacy of Buildable Lands to Accommodate Projected Needs

As a result of the above buildable lands suitability analysis, a projection can be made as to how many housing units can be built on these buildable lands. These calculations will be done for the following two housing categories: Single-Family and Multi-Family.

## Single-Family

The following densities are assigned to the suitability classification:

Suitable: 5.0 owellings per acre.

<u>Less Suitable</u>: 4:0 dwellings per acre, recognizing that construction costs rise as the degree of physical constraints at the building site increase.

<u>Least Suitable</u>: 2.0 dwellings per acre, recognizing that construction costs will be considerably higher for these lands, but that local market factors will demand some development in these areas.

Using these densities, the number of dwelling units which can be accommodated by single-family residential areas within the City can be computed. The following table shows the number of single family dwelling units that can be accommodated in North Bend.

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TOTAL

•	Acres	-		Density		Dwelling Units
Suitable	105.2		Х	5.0	≠	526
Less Suitable	74.1		X	4.0	=	296
Least Suitable	_30.5		χ.	` 2.0	٠= ,	_61
TOTAL	209.8		٠,		•	883

883 single-family dwelling units can be accommodated within the City leaving a shortfall of 163 single-family units.

## Multi-Family

The-following densities are assigned to the suitability classifications for multi-family housing.

Suitable: 15 dwelling units per acre.

Less Suitable: 12 dwelling units per acre.

Least Suitable: 5 dwalling units per acre_

Using these densities, the number of dwelling units which can be accommodated by multi-family residential areas within the City can be computed.

•		Acres		Density	_	Dwelling Units
Suitable		39.0	X	15.0	_	585
Less Suitable'		8.9	X	12.0		107
·Least Suitable	:	2.0	X	5.0		10
TOTAL	•	49.9		• •		702

702 Multi-family dwelling units can be accommodated within the City, leaving a shortfall of 385 multi-family dwelling units.

The above calculations show that available and suitable lands within the City are not adequate to accommodate projected housing needs.

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a need for the urban growth area to accommodate an additional 163 singlefamily dwellings and 385 multi-family dwellings.

## IV Rationale For Urban Growth Boundary

The Urban Growth Boundary in North Bend is drawn to encompass acreage needed for residential growth by the year 2000. The above analysis has. shown a need for additional residential land. Expansion of the City to the North and East is restricted by the estuary. Expansion to the west and south is somewhat restricted by the boundary of the City of Coos Bay.

The City of North Bend has proposed an Urban Growth Area (UGA) of approximately 118 acres, all of which is to be used for residential purposes. The Urban Growth Area consists of two "islands" surrounded by the City boundaries of Coos Bay and North Bend, comprised of 110 acres and 8 acres.

It is necessary to subtract land needed for support facilities from the 118 acres in the Urban Growth Area. Assuming the 25% of an acre will be utilized for support facilities, there are 68.5 net buildable residential acres in the Urban Growth Area.

A. Suitability of Available Residential Lands Within the Urban Growth

Vacant land in the Urban Growth Area was analyzed to determine its suitability for residential development. The same criteria will be used in determining the suitability of buildable land in the Urban Growth Area as was used in determining the suitability of buildable lands with the City

•		
Suitable		16.5
Less Suitable		66.5
Least Suitable		5.5
TOTAL .	`	83.5

B. Adequacy of Buildable Lands in the Urban Growth Area to Accommodate Projected Needs

As a result of the above buildable lands suitability analysis, it is possible to determine the capability of these lands to take care of projected needs. As previously stated, there is a need for the Urban Growth Area to accommodate 163 single-family dwellings and 385 multi-family dwellings. Since the major portion of the Urban Growth Area is classified as <a href="Less Suit-able">Less Suit-able</a>, the 4 dwellings per acre figure will be used in calculating the acreage needed for single-family dwellings and the 12 dwellings per acre will be used in calculating the acreage needed for multi-family dwellings.

	Dwelling Un Needed	nits <u>Density</u>	Acres Needed
Single-family	163	<u>.</u> 4	40.8
Multi-family	385	~ € 12	<u>32:1</u>
TOTAL.			72.9

There is an adequate amount of land within the Urban Growth Area to accommodate projected housing needs. The remaining 15.6 acres is necessary because "an overall vacancy rate statistic by itself does not necessarily assure availability of housing" (LCDC, Housing Planning in Oregon). It can also be incorporated into the "market fudge-factor". This is necessary because of the fact that, due to owner preference, all land is not available for housing consumption at any given time. In addition, the 2 small parcels that make up the North Bend UGA are islands in the midst of urbanization, the surrounding areas are committed to residential development and public services and facilities can be easily provided.

Establishment of this UGA is based on the following factors:

 North Bend's population is expected to increase by 4,700 by the year 2000. The Urban Growth Area is necessary to accommodate long range population growth and to make sure of the availability of sufficient land for the various uses to insure choices in the market place.

- 2. The proposed Urban Growth Area is necessary to meet the need for housing, employment opportunities and livability.
- 3. The North Bend City limits border the large parcel on two sides and the small parcel on three sides. The area of the City adjacent to these two parcels is zoned for residential use. Public services and facilities can be extended to the Urban Growth Area in an orderly and economic manner.
- Utilization of the proposed Urban Growth Area will provide for maximum efficiency of land uses within and on the fringe of the existing urban area.
- The proposed Urban Growth Area is not suitable for agricultural uses and no agricultural uses are taking place there or in the adjacent areas.

Establishment of this area within North Bend's Urban Growth Boundary has been a cooperative effort between the cities of North Bend and Coos Bay, as well as Coos County.

North Bend will encourage development within its urban area before the urbanizable land within the Urban Growth Area is converted to urban uses.

## C. Land Use Designations

The Urban Growth Area will retain a county zoning designation until it is needed by North Bend for residential use. It will then be annexed by the City. The small parcel will be zoned multi-family

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residential and the large parcel will probably be zoned for medium density residential development as well as multi-family.  $a^{+}t^{+}b^{-}$   $= n^{+}t^{-}$ 

There was consideration of including the Glasgow area in the urban growth boundary (UGB). The decision to exclude Glasgow was primarily based upon three factors: 1) The cost of providing services to the area; 2) The desire not to encourage and provide a catalyst to the creation of a physically separated, fully urbanized area; and 3) The City's desire to recognize the wishes of Glasgow residents (as expressed in Coos County's Coos Bay Area Townhall and Regional Planning Group meetings) not to be included in a UGB or be annexed to a city.

In terms of providing services, the cost of providing sewers someday would be enormous. In the future, if the Glasgow area is annexed to North Bend and then sewered, the cost would be borne by all of the North Bend's residents, not just the Glasgow residents who would be the beneficiaries. If Glasgow is annexed someday, the City of North Bend would inherit a road system that does not meet City standards and would be expansive to maintain. If annexed, the area brought into the City would not have any industrial uses and only 3 or 4 commercial uses. All three of the above factors (sewers, roads and single family residential character) when analyzed, mean that by annexing the Glasgow area, the current residents of North Bend would assume part of the costs for providing services and improvements in the annexed area.

Another factor in the Glasgow area is that it is almost 100% single family residential with little commercial and no industrial uses. Single family residential uses have a much lower assessed valuation and tax contribution than do commercial or industrial uses. Additionally, residential uses place greater demands on city government than do commercial or industrial.

To remain fiscally sound the City must maintain a proper mix of residential, commercial and industrial uses. To decrease the tax burden on residential uses it would be prudent to weight the mix of land uses toward commercial and industrial uses.

Another serious consideration is the provision of a sanitary sewer system. If the area is sewered it would have to be a self-contained system. That is, the collectors and trunk lines, as well as the treatment plan, would be located somewhere in the Glasgow area. It is not practical nor cost effective to attempt crossing the bay with a pressurized line and excavate the streets through North Bend to install a line from the Glasgow area to the current City treatment plant at the west of the airport. Additionally the current City treatment plan is designed for 15-20 thousand people and adding the Glasgow effluent may overload the plant.

The second factor in the decision to exclude the Glasgow area from the UGB is related to the meaning of the term urban growth boundary. By including an area in a UGB, it means that the City wishes to grow in that direction and change the general land use from rural to urban. Urban land use includes commercial and/or industrial uses. Thus, there was concern that if the area were in a UGB, there would be increasing pressures for multi-family residences, gas stations, grocery stores, drug stores, laundromats, etc. The effect would be the creation of a "new" city. If the area is excluded from a UGB, the pressures for commercial uses will be less and the rural residential character that the current residents enjoy and appreciate can be maintained. The above reasoning should not be interpreted to mean that the North Bend Plan recommends that no retail services should be allowed. The intent is to focus major development in the incorporated area so that the Glasgow area will not be subjected to severe growth pressures. Part of the concern in the above reasoning is the amount of traffic over McCulloch bridge and through downtown North Bend. If development in the Glasgow area is moderate, then there should be only moderate numbers of trips generated from that area.

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The third factor in excluding Glasgow from the UGB is partially tied to the considerations in the second factor above. The people who live in Glasgow live there for a reason (out of town location) and apparently are not anxious to be included in a UGB or annexed to a city.

In summary, the current view is that North Bend should grow in area only by annexing from the county lands between North Bend and Coos Bay. When the City reaches its maximum population and there are no adjacent lands to annex, the City can again address the questions of the lands north of the bay.

## V. Consequences of Development in Urban Growth Area

#### A Economic

Land values have been rising in North Bend at a rapid rate. This rise in land values will present problems for lower and moderate income families, and especially elderly people on fixed incomes. A reserve of adequate land for residential uses will protect opportunities for low and moderate income housing.

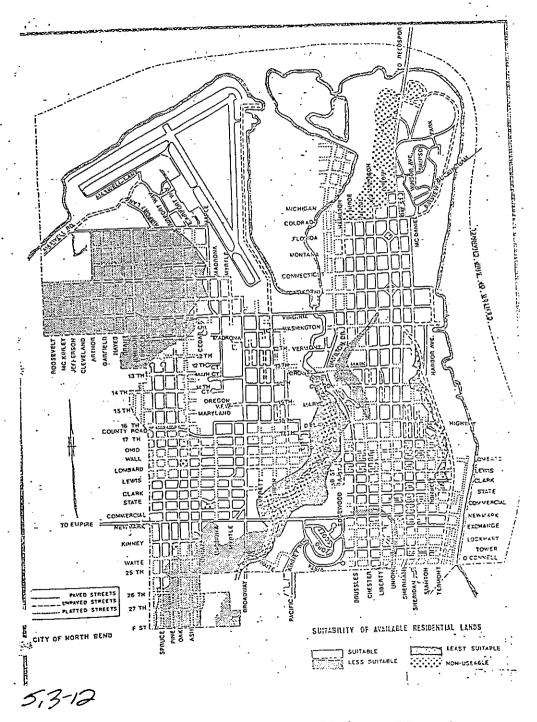
The growth accommodated by an annexed UGA will change the tax base to the city.

The growth accommodated by the UGA will result in increased economic activity, and therefore will augment employment opportunities in North Bend.

## B. Environmental

No significant impacts on air or water quality are expected as a result of orderly residential development (with sewers) in the UGA.

An increase in impervious surfaces from pavement and buildings would be expected from residential development. This could easily be mitigated by implementing proper urban runoff techniques.



Some increase in erosion could occur as a result from removal of vegetation for residential construction. Proper revegetation would mitigate this situation.

## C. Social

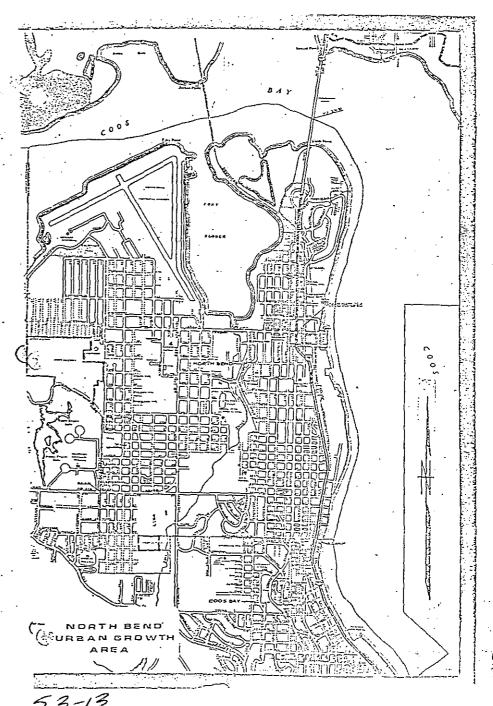
The development of North Bend UGA helps to maintain existing . housing densities and therefore will help to maintain existing life styles

Provision of additional housing will help to furnish a diversity of life style options.

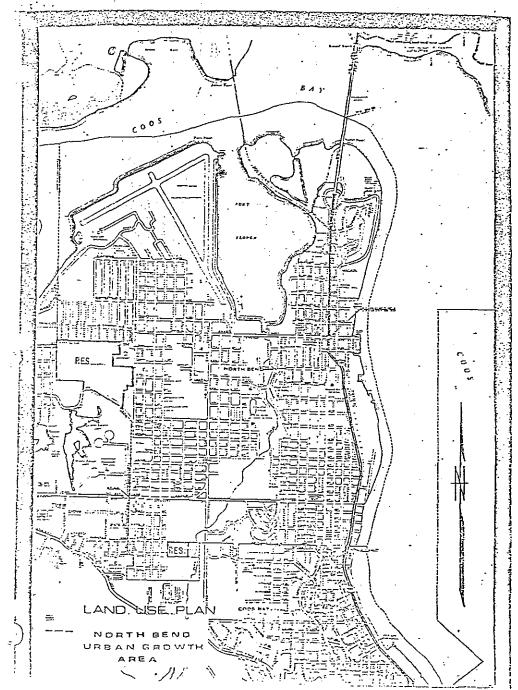
Orderly growth will provide for the social stability that is characteristic of a small town.

## D' Energy

Growth in the UGA will require an extension of services to that area. The proposed UGA provides a more energy efficient alternative than growth in other areas (e.g. development across the bay in Glasgow).



5.3-13



#### LEGEND

North Bend Urban Growth Boundary Soils Map

Nestucca Silt Loam (12A) The Nestucca series consists of somewhat poorly drained soils that formed in mixed alluvium. The soil has 0 to 3 percent slopes on stream bottoms with shallow swales and depressions. Native vegetation consists of red alder, Western hemlock, Sirka spruce, with shrubs, grasses, skunk cabbage, and tussocks. Elevation is 10 to 750 feet. Average annual precipitation is about 60 to 100 inches, average annual air temperature is 52 degrees F., and the frost-free period at 32 degrees F. is about 182 days.

The surface layer is mottled, dark brown and very dark grayish-brown, strongly acid, silt loam about 14 inches thick. The sub-soil is dark-grayish brown very strongly acid silty clay loam with distinct mottles about 27 inches thick. It is underlain by prominintly mottled stratified alluvial material.

Permeability is moderately slow. Rooting depth is limited by a seasonal water table at 0 to 20 inches deep. Runoff is very slow to ponced. The erosion hazard is slight. The total available water holding capacity is 11.5 to 12.5 inches. The water supplying capacity is 20 to 25 inches.

Nestucca soils are used for pasture and forage crops.

Brallier Peat (13A) The Brallier series consists of very poorly drained peaty soils formed mainly of slightly decomposed fibrous organic residues from water tolerant plants. These soils occupy nearly level casins on tidelands and basins or floodplains along sluggish streams near tidelands. Where not cultivated, the vegetation is brush, villow and spruce or tussock grasses. Elevation is from 0 to 8 feet. Average annual precipitation is 90 to 100 inches, average annual temperature is 50 to 52 degrees F., and the frost-free period at 32 degrees F., is 150 to 200 days.

Typically, the surface layers is about 6 inches of dark brown extremely acid peat. The sub-soil is dark grayish-brown and grayish brown strongly to extremely acid peat to about 40 inches, below which is very dark grayish-brown and gray slightly acid peat and muck.

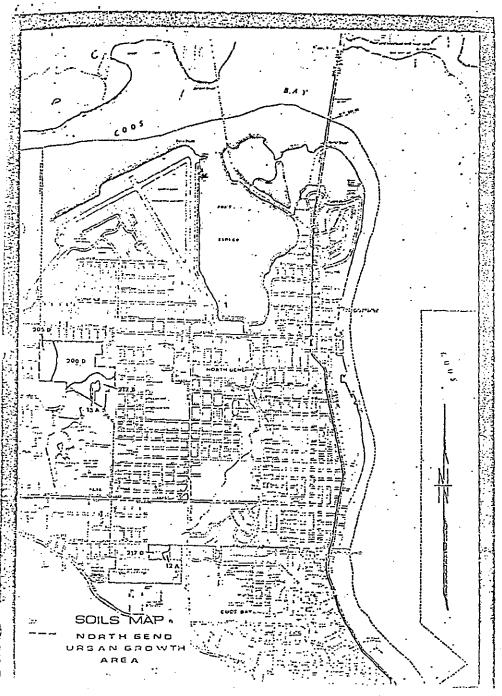
Permeability is moderate. Runoff is very slow to ponded. The erosicn hazard is slight. The total available water holding capacity is 12 to 25 inches. The water supplying capacity is 20 to 26 inches.

Brallier soils are used mainly for hay, pasture, and wildlife habitat.

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Volume I Part 2



Westport Loamy Sand (2000) The Westport series consists of deep, excessively drained soils that formed in wind-deposited material on nearly level to steep stabilized dunes. The vegetation is Sitka spruce, shore pine, manzanita, evergreen huckleberry, dune grass, forbs, and other shrubs. Elevation is 0 to 300 feet. Average annual precipitation is 60 to 100 inches; average annual air temperature is 50 to 53 degrees F. The frost-free period at 32 degrees F:, is 200 to 250 days.

A mat of fosses, litter, and roots is on top of the mineral soil. Typically, the surface layer is very dark grayish-brown and dark grayish-brown fine sand to loam fine sand about 16 inches thick. The sub-soil is brown to olive gray fine sand to depths greater than 60 inches.

Perpeability is very rapid. The erosion hazard is high, assuming the vegetation is removed. The total available water holding capacity is 3 to 4 inches. The water supplying capacity is 18 to 20 inches. Effective rooting depth is over 60 inches.

Westport soils are used for homesites, wildlife habitat, and recreation.

Bullards Sandy Lorn (2178, C. 6, D.) The Bullards series consists of well-drained sendy local over sand soils formed on old marine terraces in water and wind deposited sediments. These soils are on the nearly level tops and steep sides of deeply dissected up-lifted terraces at elevations of 50 to 600 feet and with slopes of 0 to 50 percent. The native vegetation is shore pine, Sithalspruce, red alder, Western red, and Port Orford cedars and occasional Bouglas-Fir with madione, thododendron, evergreen, huckleberry, salal, bracken fern, and grasses. The mean annual precipitation is 55 to 65 inches. The average annual temperature is 51 to 55 degrees F. The frost-free period is 200 to 240 days.

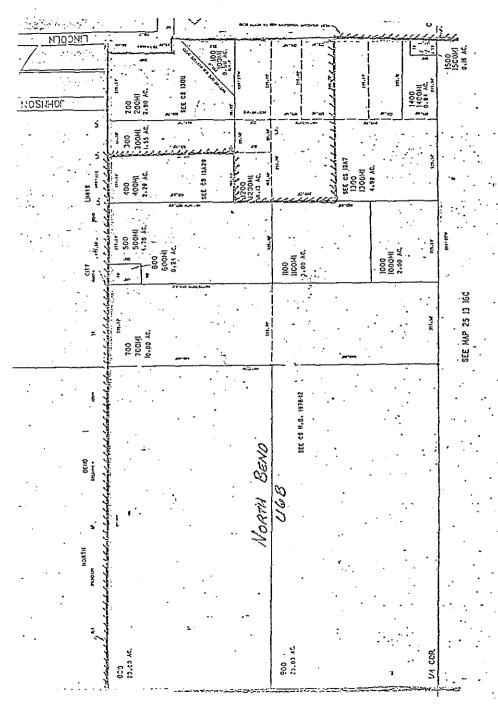
The surface layer is dark brown and strong brown sandy loam about 38 inches thick over a light olive brown loam fine sand and sand that extends to 60 inches or more. There is from 5 to 15 percent weakly and strongly cemented reddish-brown shot in the surface layer and gravelly sand below 40 inches in some areas:

Permeability is moderate over moderately rapid. The erosion hazard is slight to severe. Total available water holding capacity is 4.5 to 6.0 inches and the water supplying capacity is 15 to 22 inches.

Bullards soils are used for wildlife habitat, recreation, nomesites, pasture and timber.

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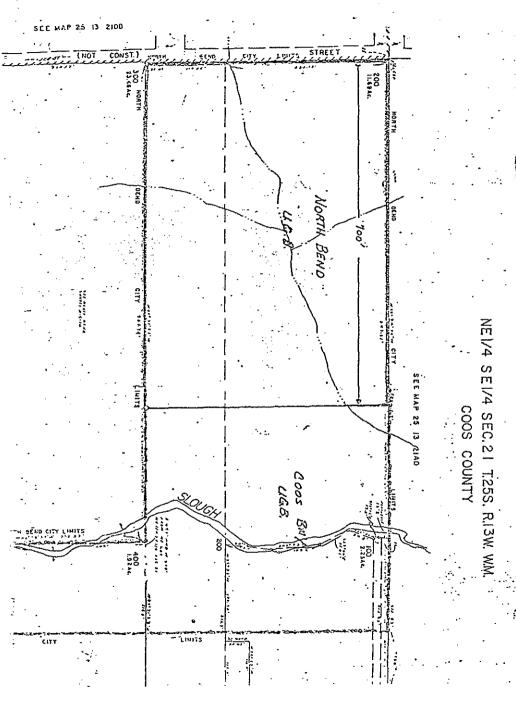
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Volume I Part 2 866

Volume I Part 2



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5.4 COOS BAY

Volume I Part 2 870 FILE #____

BOARD OF COMMISSIONERS

COUNTY OF COOS

STATE OF OREGON

ALEO JUL 30 ISSI

In the Matter of Adopting an Urban ) ORDINANCE
Growth Boundary for the City of )
Cook Bay! Oregon ) OR 81-014

THE BOARD OF Commissioners for the County of Coos ordains as follows:

## SECTION 1. TITLE

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This ordinance shall be known as "Coos County Ordinance Number OR 81-014, an Element of the Coos County Comprehensive Plan."

#### SECTION 2. AUTHORITY

This ordinance is enacted pursuant to the provisions of ORS 203.035 and ORS Chapter 215.

#### SECTION 3. PURPOSE

The purpose of this ordinance is to adopt an urban growth boundary for the City of Coos Bay, Oregon. This ordinance also establishes land use designations for the City of Coos Bay urban growth area.

#### SECTION 4. FINDINGS

The Board of Commissioners of Coos County finds that:

1. Statewide Planning Goal 14, Urbanization, requires that urban growth boundaries be established to identify and separate urbanizable land from rural land. Goal 14

ORDINANCE - 1

further provides that establishment and change of urban growth boundaries shall be based upon consideration of the following factors:

- Demonstrated need to accomodate.
   long-range urban population growth
   requirements consistent with LCDC goals;
- (2) Need for housing, employment opportunities, and livability;
- (3) Orderly and economic provision for public facilities and services;
- (4) Maximum efficiency of land uses within and on the fringe of the existing urban area;
- (5) Environmental, energy, economic and social consequences;
- (6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
- (7) Compatibility of the proposed urban uses with nearby agricultural activities.
- 2. Based upon an analysis of the above listed factors, and the Coos Bay Comprehensive Plan, the Board finds that the urban growth boundary for the City of Coos Bay described in "Exhibit A", attached hereto and incorporated herein by reference, is justified and appropriate.

ORDINANCE - 2

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4. The rationale and justification for establishment of this urban growth boundary and the land use designations within this urban growth boundary are set forth in "Exhibit B", attached hereto and incorporated herein by reference, and in the Coos Bay Comprehensive Plan.

#### ADOPTION OF URBAN GROWTH BOUNDARY SECTION 5.

The boundary described in the attached "Exhibit A" is hereby adopted as the urban growth boundary for the City of Coos Bay, Oregon.

#### ADOPTION OF LAND USE DESIGNATIONS SECTION 6.

The land use designations indicated on the attached "Exhibit A" are hereby adopted as the land use designations for the City of Coos Bay urban growth area.

ATTEST

Recording Secretary Approved as to form:

Commissioner ORDINANCE - 3

MOODLAND DRIVE C002 CITY OF COOS BAY URBAN GROWTH AREA モットない

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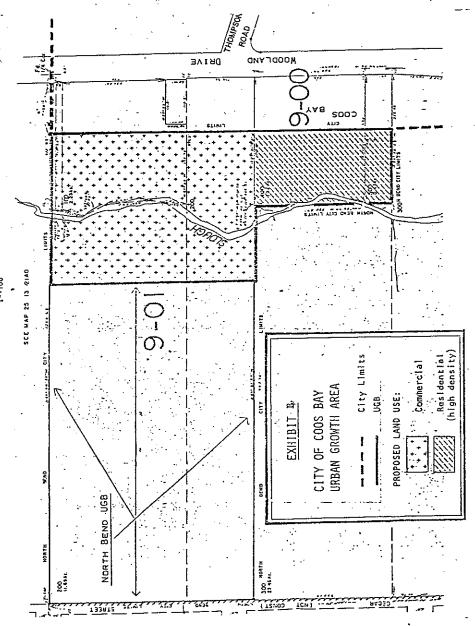
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SUPPORTING DOCUMENTATION

 COMPREHENSIVE PLAN: Urbanization element of plan inventory, 28 pages

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Volume I Part 2 877

Volume I Part 2 876

#### Urban Growth Management

## Introduction

The recognition of urbanization in the City's comprehensive plan deals with two factors — the adequacy of existing urban lands and the need and propriety of extending the City's limit of jurisdiction to meet future growth. In essence, the City and County must cooperatively consider what lands, if any, surrounding the City may eventually be considered urban rather than rural. The designation of this area is made by an urban growth boundary line or a zone which distinctly separates and identifies current urban and rural areas. The goal of establishing this Urban Growth Boundary (UGB) is to make an efficient and orderly transition from rural to urban land use, that is, to contain urban sprawl and minimize the costs of erratic development. But the decision to design an Urban Growth Boundary (UGB) hinges upon a thorough understanding of urban development and public needs.

An intended effect of a UGB is to prevent urban sprawl by promoting the use of undeveloped lands within the City first, and managing land development outwards as needed. There has been increasing consumption of land outside cities by urban-type development at a characteristically lower density.

Urban land consumption in this country is increasing faster than population growth. The built up lands in urban and suburban areas increased from 18 to 35 million acres between 1950 and 1970. In the same period the amount of land per person increased from .2 acres per person in 1950 to .4 acres per person in 1970. (Reeder, 1977:1)

Such sprawling development increases the cost of services and cost to the environment which is ultimately absorbed by local government and the taxpayer. One must consider that longer utility lines must be built; more roadways must be paved. Police and fire protection services must extend over larger, lower density areas. There are also costs in energy consumption and travel time.

The biggest disadvantages of the increasing land consumption and decreasing densities are the costs of providing urban services to fewer people in a large area, the loss of prime agricultural lands and other natural areas, and the increasing consumption of energy in transportation of goods and services. (Reeder, 1977:1)

In 1974, the Real Estate Research Corporation had found that sprawl "is the most expensive form of residential development in terms of economic costs, environmental costs, natural resource consumption, and many types of personal costs." (LCDC, 1978:6)

City officials must also consider the costs of upgrading development within the UGB that does not meet City standards at such time these areas may be incorporated into the City. Nor must one overlook the desires of residents

living within a potential UGB who may not want added costs and urban regulation, but prefer a rural or suburban setting.

Designation of a UGB involves three elements. One is to determine the amount of land needed for future residential, commercial, and industrial growth and the land currently available within the City for these purposes. If undeveloped urban lands do not satisfy predicted needs, suitable land outside the city may be earmarked within the UGB.

The second element is to assess the suitability of extending the city's limits. Such an assessment considers six factors:

- 1. Need for housing, economic opportunities, and liveability.
- 2. Provision for facilities and services in an orderly and economic fashion.
- 3. Maximum efficiency of land use.
- 4. Environmental, energy, economic and social consequences.
- Retention of agricultural lands.
- Compatibility of urban uses with adjacent agricultural lands.

The third and crucial element is examined, if an extension of the urban boundary is deemed advisable. To implement this third stage, the City and County, as representatives of these urban and rural lands, must prepare a cooperative agreement. This agreement serves to reconcile the sensitive issue of land development within the UGB prior to possible annexation. In other words, it defines whether City or County zoning and land development requirements will apply within the UGB. It also serves to satisfy any other concerns by the City or County.

Estimated Future Land Heeds

#### Population Projections

The estimated population of persons expected to reside in the City of Coos Bay by a specified date is the basic criterion for determining future residential, commercial, industrial, and open space land needs. Population projections are formulated by several agencies in Oregon, each using a variation of a basic statistical method. This method is the conort-survival technique (cohort groups are those united by similar age and sex), and it considers fertility, mortality, and net migration rates. The projections are formulated for 5-year intervals, presently calculated from 1975 to 2009. The birth and death rates are computed with adjustments caused by changes in household size. Net migration is assessed by taking into account regional and national economic trends by nationwide shifts in population settlements.

Four agencies publish county-wide population predictions, based on 1970-75 trends; they are: the Center for Population Research and Census at Portland State University (CPRC), the Conneville Power Administration (CPA), Pacific Northwest Bell (PRB), and Coos-Curry-Douglas Economic Improvement Association (CCD-EIA).

The CPRC is the only agency to predict high, medium and low counts. Table 5.8-1 presents these agency population predictions for Coos County, graphically displayed in Fig. 5.8-1 - 5.8-2. The CPRC "high" figures represent the most extreme population expected to reside in the County by the year 2000. Therefore, the CPRC "high" prediction, is shown in Fig. 5.8-2 in comparison to other agency predictions because the CPRC "high" will be used to extrapolate the comprehensive plan population estimations for Coos Bay.

Table 5.8-1

## COOS COUNTY POPULATION PROJECTIONS

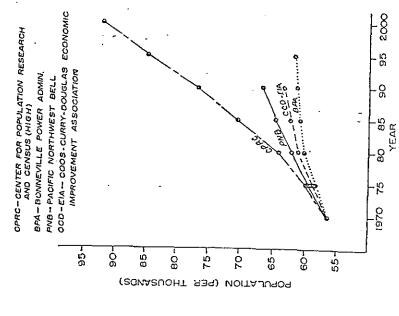
# 1970-2000

		C.P.R.			<u> </u>		
YEAR HI	HIGH	KED.	LOW	B.P.A.	P.N.B.	CCD-EIA	
1970	56,515	56,515	56,515	55,515	56,515	56,515	
1975	59,500	59,500	59,500	59,300	59,700	59,565	
1980	64,200	63,600	63,000	60,100	62,200	61,095	
1985	70,400	68,300	66,900	60,700	64,700	62,355	
1990	76,700	72,400	69,600	61,250	65,900	63,380	
1995	84,300	76,900	72,300	61,600			
2000	92,000	80,700	73,800				

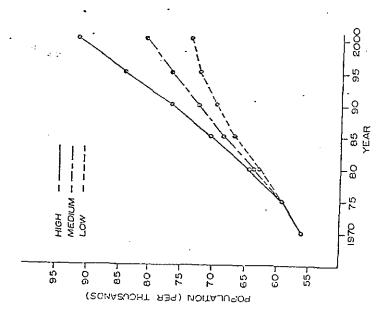
#### Coos Bay and North Bend Population Projections

The estimation of populations in Coos Bay and North Bend can be computed by "stepping down" from the CPRC "high" County predictions. This method assumes that Coos Bay and North Bend will continue to capture 25% and 16%, respectively, of Coos County population through the year 2000. As shown in Table 5.8-2, population by 2000 in Coos Bay will approximate 23,000; that for North Bend would be 14,720. Graphic comparisons of this population growth is presented in Fig. 5.8-3.

Fig. 5.8-2 COOS COUNTY POPULATION PROJECTIONS :







5.4-5

Volume I Part 2

## Coos Bay and North Bend Population Projections

The estimation of populations in Coos Bay and Morth Bend can be computed by "stepping down" from the CPRC "high" County predictions. This method assumes that Coos Bay and North Bend will continue to carrier 25% and left, respectively, of Coos County population through the year 2000. As shown in Table 5.3-2, population by 2000 in Coos Bay will approximate 23,000; that for North Bend would be 14,720. Graphic comparisons of this population growth is presented in Fig. 5.2-3.

Table 5.8-2

COOS BAY AND NORTH BEND POPULATION PROJECTIONS, BASED ON "STEP-DOWNS" FROM CPRC "HIGH" FIGURES 1970-2000

YEAR:	COOS BAY	NORTH BEKE
1970	13,465	8,553
1975	14,000	9,000
1980	16,050	10.272
1985	17,600	11,264
1990	19,175	12,272
1995	21.075	13,488
2000	23,000	14,720

Source: Staff Computations.

Another method for predicting populations for Ceos Day and North Bend is based upon an average annual percentage of change for each city rather than on cohart-survival techniques. Coos Bay's population in 1970 was 13,466; its population in 1978 was 15,300. This increase constitutes a total 13.6% change in population or an annual average of 1.7%. Therefore, for a 5-year period, Coos Bay's population recorded an 8.5% gain based on 1970-1978 trends. Applying this 5-year increase percentage, population figures can be projected to the year 2000 at 5-year intervals.

Population increases can also be predicted based on the trends established between 1975 and 1978 rather than on the 8-year trend (1970-78). Table 5.8-3 shows the populations for Coos Bay and North Bend in 1970, 1975, and 1978, and the corresponding percentages of change totally, annually, and over a 5-year period. Table 5.8-4 expresses these changes in population projections every 5 years considering both trends.

Table 5.8-3

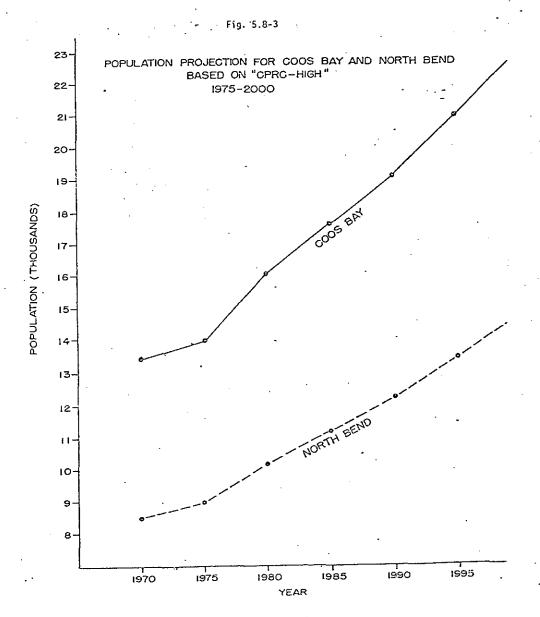
#### POPULATION CHANGE FOR COOS BAY AND NORTH BEND, BASED ON 1970-78 AND 1975-78 TRENDS

	_ F	OPULATION	<b>!</b> S -	PERCENT OF CHANGE							
CITY	1970	1975	1978	TOTAL	ANNUAL	5-YEAR PERIOD					
Coos Bay	13,466	14,000	15,300 15,300	13.6% 9.3%	1.7% 3.1%	8.5% 15.5%					
North Bend	8,553	. 9,000	10,300	20.4%	2.6%	13.0% 24.0%					

Table 8.5-4

#### PROJECTED PROPULATION OF COOS BAY AND NORTH BEND BASED ON AVERAGE 5-YEAR GAINS - 1975-2000

	C00:	S BAY	NORTH BEND						
YEAR	1970-78 trend (8.5% gain)	1975-78 trend (15.5% gain)	1970-75 trend (13.0% gain)	1975-78 trend (24.0% gain)					
1975	14,000	14,000	9,000	9,000					
1980	15,190	16,170	10,170	11,160					
1985	16,481	18,676	11,492	13,838					
1990	17,881	21,571	12,986	17,159					
1995	19,401	24,915	14,674	21,277					
2000	21,050	28,777	16,581	26,334					



FROM COOK COOK COUNTY PREDICTIONS

A comparative study of the CPRC "high" projections and that depicted in Table 5.8-3 based solely on recent settlement trends reveal a substantial similarity for Coos Bay but a discrepancy in North Bend predictions. The CPRC "high" for Coos Bay lies in the mid-range of predictions based on past trends. However, the corresponding CPRC prediction for North Bend falls considerably short of both trend expectancies. If trend predictions are accepted as valied indicators, the North Bend population "spillover" could have a decided impact on Coos Bay. However, for the purpose of this plan, the CPRC "high" is considered a more reliable assessment due to its more thorough methodology.

#### Relationship of Coos Bay and North Bend Populations

The housing needs and buildable lands assessment for the City of North Bend could have an effect on Coos Bay. The city limits of North Bend are unchangeably delineated, for all practical purposes. Its eastern, northern, and western boundaries are surrounded by the estuary; at its southern border lies the City of Coos Bay. Unless North Bend extends its limits beyond the bay to include the north bayside areas, its maximum population is fixed. The maximum land development capabilities of North Bend may affect Coos Bay in what is termed "spillover;" that is, Coos Bay would have to house those persons who cannot settle in North Bend.

North Bend's urbanization element (1980) states that the city population will reach approximately 14,996 by the year 2000 (based upon a similar step-down method of the PSU "high" prediction). This amount constitutes an additional 4,700 persons over the 1978 population and will require 1,724 more dwelling units with an average household size of 2.71. The element further states that the residential land needs will total 305 acres (comprising 16 acres for multiple density, 289 acres for low and medium density). After analyzing the commercial and industrial land needs and the buildable lands available, it is concluded that the city is short by 120 acres to house the entire prospective population. However, the City of North Bend has used these statistics to justify an urban growth boundary around two unincorporated islands of land lying between both cities, comprising a total of 118 acres, thereby, providing enough residential land.

Based upon this information, it can be assumed for this phase of planning that Coos Bay will <u>not</u> be impacted by an "overflow" North Bend population until post-2000.

#### Residential Land Use Needs

#### Relationship Between Population and Housing

The relationship between population and housing was discussed in detail in the housing inventory. This discussion concluded that in Coos Bay there is a logical, measurable relationship between population magnitude and the number of housing units necessary to accommodate that population. An analysis of the growth in the total number of housing units in Coos Bay since

Volume I Part 2 884 5,4-7

Volume I Part 2

1970 reveals a strong positive relationship between the City's population growth during the period and corresonding housing increases.

Application of a statistical technique called "regression analysis" enables precise measurement between population and housing variables. The technique measures the degree to which the variables are related to each other by assessing how changes in one variable affect changes in the other. The technique also enables the prediction of future housing needed to support future population, based on the relationship that existed between the two variables from 1970 to 1978.

By computing a statistic called the "coefficient of determination" (part of the regression analysis), it was determined that city population growth is statistically related to 90% of the total number of housing units which occurred during the eight year period. This supports the obvious assumption that growth in local housing units results from Coos Bay's population increases. It is also reasonable to assume that while 90% of local housing stock changes are related to population changes, speculative building activity might account for the remaining 10%. Table 5.8-5-shows the estimated housing units needed to satisfy future population based on past housing trends.

Table 5.8-5

ESTIMATED HOUSING MEEDS BASED ON FUTURE POPULATION GROWTH AND PAST TRENDS

FUTURE	?	0.2	UL.	ΑŤ	10	N				•	E:	ST	[]-1/	17	ΞĐ	HO	:טכ	51:	1G	UNITS
15,500		_	_		•					_			_				_	_	_	5857
16,000										-			-	-				·		6097
16,500																				6337
17,000												٠.								6576
17,500																				6816
18,000												_		_						7058
18,500								_		-										7296
19,000							٠													7536
19,500												_			٠					7777
20,000						_	_					-								8015
23,000						-														9455
25,000			٠	٠.																10414

Population, Housing, and Land Use

Estimates of population growth and the corresponding need for additional housing can be restated in terms of land required to satisfy the projected growth. This is a basic criterion to determine the need for an urban growth boundary. As aforementioned, population and housing construc-

figure to households and assuming that the trend for smaller households will hold sway, the city can expect a total of 9,043 family units by that time with an average of 2.5 persons in each household.

These additional dwellings required by the turn of the century must be allocated by desired housing type. For instance, in 1978, the housing stock was characterized by 70.2% single-family and duplex chellings, 20.6% multiple-family and 9.2% mobile homes. Interestingly, this mix and the housing mix in 1970 very closely correlated with the state average. (Table 5.8-6) The trend has been and will most likely continue to be a (Table 5.8-6) The trend has been and will most likely continue to be a reduction in the single-family housing type (detached, owner-occupied) with an attendant increase in duplexes, apartments (either rented or owned ascondominiums), and mobile homes. This inventory proposes a new mixture of housing stock for the city by the year 2000 which will correspond to the state trend and also will satisfy the comprehensive plan policies to provide more affordable housing by increasing the multiple-family type housing. (Table 5.8-6)

TABLE 5.8-6
PERCENT OF PROJECTED HOUSING MIX BY THE YEAR 2000: COMPARATIVE DATA

	197	10	197	8	2000
•	Cocs Bay	Oregon	Coos Bay	Oregon	Coos Bay
Single-family	73.6%		65.7%	>69.0%	50.0%
Duplex	4.1%	77.0%	4.5%	03.0%	5.0%
Multiple-family	17.0%	17.9%	20.6%	21.6%	30.0%
Mobile Home	5.1%	5.1%	9.2%	9.4%	15.0%

Source: City of Coos Bay housing statistics and Wright, Kim A., 1979:39.

The number of basic housing units should be adjusted for a normal vacancy rate. Assuming a standard rate of 6% for multiple-family housing and 2% for single-family homes (Housing Division, State of Oregon), the number by unit type can be amended to reflect the number of units required to provide a realistic market. Table 5.8-7 shows the number of vacancy-

adjusted units by type for the city by the year 2000. It shows a total number of 9,365 housing units which is 3,674 more units than the 1978 figure.

TABLE 5.8-7

TOTAL	NUMBER	0F	HOUSING	UNITS	BY	TYPE	 2000

Housing Type	Number of	of Units 2000	Additional Units Required
Single-family	3,741	4,614	873
Duplex	253	481	228
Multiple-family	1,175	2,886	1,711
Mobile Home	522	1,384	862
TOTAL	5,691	9,355	3,674

## Commercial and Industrial Needs

The character of commerce and industry in Coos Bay was addressed in the Economic Development inventory. The assessment concluded that commercial trade and service activities are by far more important within the economic support system for the city proper, as opposed to major industrial activities of the urban area which, for the most part, are located beyond Coos Bay's city limits. An adequate supply of commercially-suited land currently exists in Coos Bay if existing patterns and trends are acknowledged. A significant land use pattern has been that the city lacks much land properly suited to industrial development, although a disproportionate amount has been zoned as "industrial land." In addition, commercial uses have been permitted within these designated industrial lands. Coos Bay's planned and zoned "industrial" lands are not truly industrial lands. Rather they are commercial lands that Contain a scattering of industrial uses within them. Another pattern affecting the adequate amount of commercial lands is the practice of infilling vacant areas within commercial zones. (City of Coos Bay, Economic Development Inventory, 1981:

#### Open Space Needs

Open space exists within the City in the forms of parks, the watershed, rights of way, and undeveloped land. Parks and rights of way compromise approximately 990 acres of land accessible and used by the public. The watershed adds an additional 2,023 acres of land protecting the area's water supply but prohibits other public use. The remainder of approximately 1,730 acres of undeveloped land exists in Coos Bay. The ultimate use of this land is yet to be determined. However, portions of this land may be left as open space

in the light of two criteria. One is the need for additional neighborhood parks as indicated in the Recreation inventory. Another factor may be the unbuildable nature of these undeveloped tracts, perhaps indicating that they are more suitable as open space. The following buildable lands assessment will discuss these factors in more detail. (Appendix

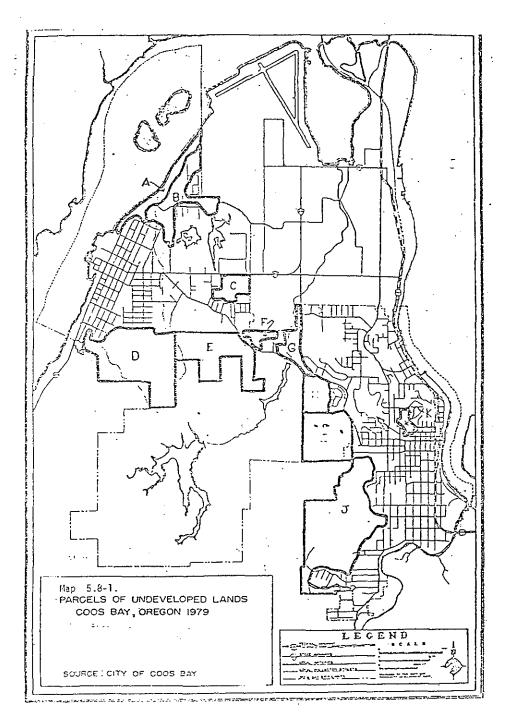
## Conclusions

- The population for Coos Bay by the year 2000 is expected to approximate 23,000 individuals.
- Based on the expected growth of North Bend, that City will not reach its maximum population capacity before the year 2000. Hence, Coos Bay will not experience a greater influx of persons unable to settle in North Bend until that time.
- Based on these population projections, the City will have an additional housing population of 7,300 persons or set aside enough land for approximately 3,674 more housing units.
- There are sufficient commercially-zoned lands within the city limits but insufficient industrially-zoned lands.
- 5. The City may need to dedicate some undeveloped land for open space uses to satisfy a need for parks; however, it is envisioned that there are sufficient lands needed for this purpose within the existing city limits.

## Buildable Lands Assessment

In 1977, it was determined that roughly 1,730 acres of land remained undeveloped or vacant in the City either in large tracts or in scattered isolated parcels. However for future planning needs, only the larger tracts of land are considered herein. (Map 5.8-1) It is assumed that the scattered parcels will be "infilled" by uses compatible with existing zone designations. (Appendix

Although there are 1,730 acres of undeveloped lands in the City, not all of this acreage may be suitable for development, and, therefore, will not satisfy future residential, commercial, or industrial needs. Specific land constraints must be assessed before determining the degree to which a piece of land is buildable. In this area, known land constraints are the degree of slope, drainage and flooding, soils, and geologic hazards. Other factors which may hinder development is the feasibility of providing supporting facilities, such as water, and sanitary and storm water lines. By applying standards for each of these constraints, parcels of land may be totally excluded from the buildable reserve; other lands may be deemed highly buildable; while still others are buildable but necessitate special construction techniques.



## Physical Constraints

Partial determination of buildable lands is based upon assessing the following physical criteria.

.Slope--(Map 3.3-2)

- 1. Land with a 0-12% slope is prime for standard residential development.
- Land with a 13-30% slope is buildable but requires more than standard construction techniques.
- 3. Lands having a slope greater than 30% should be excluded from the building reserve. This criterion is for purposes of inventory only and is not meant to exclude lots of slopes greater than 30% for special construction. In these instances, soils analyses and specially engineered foundations might be required in order to build on the site.

Drainage--(Maps 4.3-2, 4.3-6)

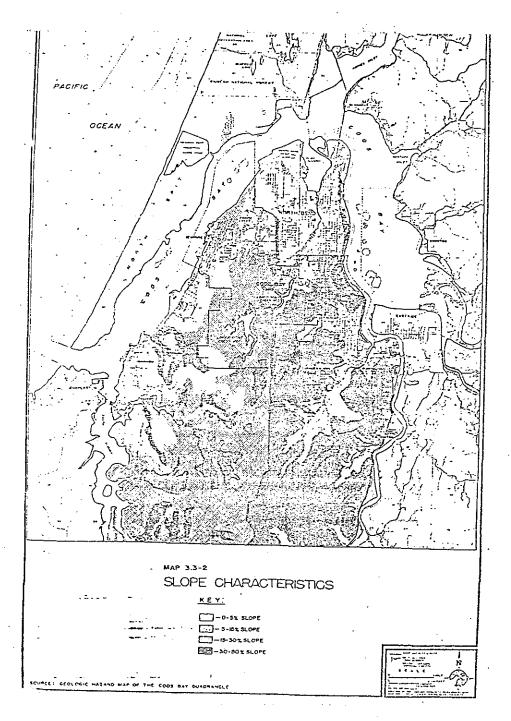
- Areas with no known drainage problems are prime for standard residential development.
- Areas with known drainage problems such as intermittent standing water, high water table, and so on, are buildable but require additional drainage procedures.
- 3. Of those lands lying within the 100-year floodplain, building will be prohibited in undeveloped areas of the floodway. However, construction in the flood fringe will be permitted but limited so that the cumulative effect of such construction will not raise the levels of flood water more than one foot. Determination of floodway and flood fringe boundaries will be accomplished by the Department of Housing and Urban Development in the near future.

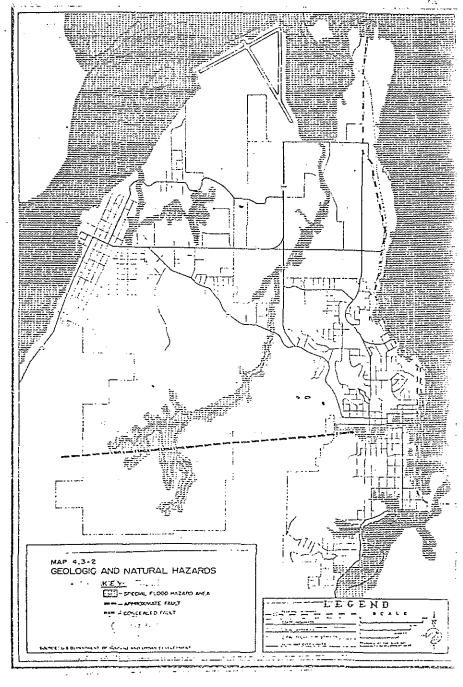
Soils--(Map 3.3-1)

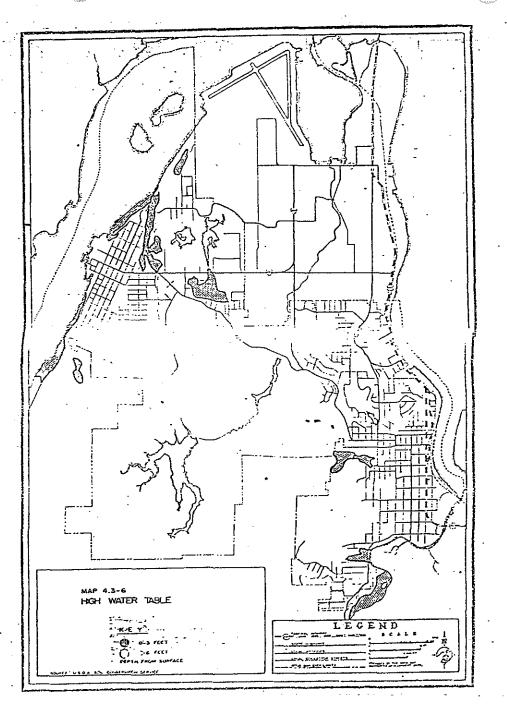
Unless soil conditions are such that they will not support residential construction using accepted building practices, they should not be a limiting factor within the urbanizable area. Limiting factors would be fill material, extreme erosion hazard, and so forth.

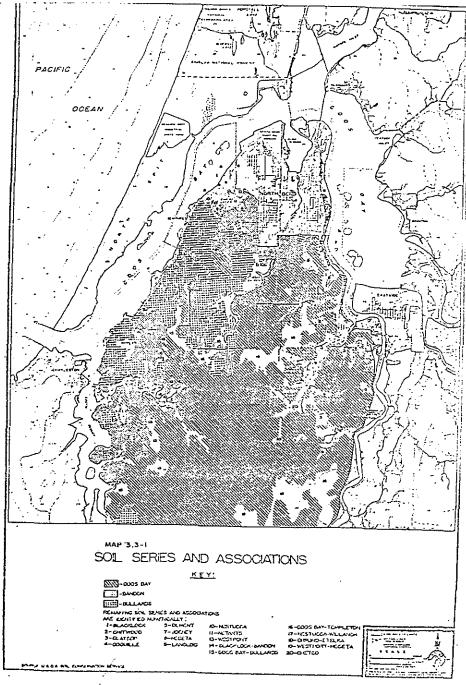
Geology -- (Map 4.3-2)

Exclude all lands with known hazardous geological conditions, such as landslides, faults, and so on.









Volume I Part 2 894

5,4-12

## Undeveloped Lands Analysis

The tracts of undeveloped lands, featured in Fig. 5.8-4, have been assessed according to the aforementioned criteria. The majority of land in these parcels is buildable and has little, if any, constraints imposed by drainage, soils, or geologic problems, or the accessibility of facilities and services. The principal restraining factor is slopes greater than 30%; these lands have automatically been excluded from consideration in the buildable land reserve for the City of Coos Bay. As a result a total of 933 acres of land counted within the parcels in Map 5.8-1 are deemed suitable for residential construction.

Specific parcel analysis follows below.

## Parcel A. North Empire Waterfront Area--

Acreage:

Approximately 15 acres

Slope:

6-15%

Drainage:

Groundwater within three feet in the northern portion in the vicinity of the city limits and in the southern section of this parcel; the area surrounding Chickses Creek and the low-lying area along the estuary lie within the 100-year floodplain.

Present Zoning:

Restricted waterfront residential

Conclusioner

Generally highly buildable, with special considera-

tion given to adequate site drainage.

## Parcel B. North Empire Area. (Fenvick environs)

Acreage:

Approximately 100 acres

Slope:

0-5%

Drainage:

Groundwater within three feet in the area west of

Empire Lakes and along Chickses Creek.

Present Zoning: Single-family and duplex residential

Conclusion:

Committed to low density residential development, buildable but with special consideration given to

adequate site drainage.

## Parcel C. Jensen Area --

Acreage:

Approximately 10 acres

Slope:

0-5%

Drainage:

Groundwater within three feet of surface of entire

Present Zoning: Mobile home park

Conclusion:

Revision of zoning to multi-family residential would be more compatible with surrounding property. Area is buildable but with special consideration given to adequate site drainage. A commercial designation

might also be suitable.

## Parcel D. South Empire Area--

Acreage:

Approximately 296 acres -- 134 acres 0-5% slope.

162 acres 5-15% slope

Slope:

0-5%, 5-15%

Present Zoning: Single-family/duplex; agricultural/residential

Conclusion:

Highly buildable. Coos County presently owns 43 acres within this area and to date has not cited uses of this land for activities other than for residential purposes. The City has traditionally treated these lands as low density residential.

## Parcel E. Terramar Area--

Acreage:

Approximately 139 acres -- 131 acres 6-15% slope,

8 acres 16-30% slope

5-15%, 16-30%

Present Zoning: Single-family/duplex; agricultural/residential

Conclusion:

Highly buildable; some property east of Terramar . would be suitable for high density residential devel-

opment routed from Lindy Lane to Ocean Boulevard.

## Parcel F. 28th Street Area--

Acreage:

Approximately 3 acres

Slope:

6-15%

Present Zoning: Single-family/duplex; mobile home park

<del>tonclusion: - -- Buildable: suitable for multi-family residential deve</del>

5,4-13

Volume I Part 2

## Parcel G. Pony Creek, north of Ocean Boulevard--

Acreage:

Approximately 12 acres

Slope:

6-15%

Drainage:

Lies within the 100-year floodplain in low-lying areas.

Present Zoning:

Single-family/duplex

Conclusion:

Multi-ownership of property may create assemblage

difficulties.

## Parcel H. Undeveloped Westgate Plat --

Acrease:

Approximately 50 acres

Slope:

0-15% (± 37 acres); 16-30% (± 13 acres)

Present Zoning:

Single-family/duplex ( 35 acres); residnetial/profes-

sional (* 14 acres)

Conclusions:

Suitable for some low density and some high density

residential development.

## Parcel I. Katerboard Area--

Acreage:

Approximately 90 acres

Slope:

16-30%

Present Zaning:

Watershed

Conclusion:

This area is planned to be sold by the Coos Bay-North Bend Water Board as it falls outside the watershed boun-

dary. It is suitable for low and high density residen-

tial development.

## Parcel J. Englewood-West Marshfield Area--

Acreage:

Approximately 205 acres

Slope:

Most characterized by 16-30% slopes.

Drainage:

Small low slope area in eastern portion and area in Blossom Gulch lie within the 100-year floodplain and has high groundwater within three feet of the surface.

Present Zoning:

Single-family/duplex; agricultural/residential

Conclusion:

Slopes are such that conventional development would be costly, consideration should be given to adequate drainage in Blossom Gulch area. Density should be made at higher levels (e.g., multi-family) to entice development.

## Parcel K. West Jelegraph Hill Area--

Acreage:

Approximately 8 acres

Slope:

16-30%

Present Zoning: Single-family/duplex

Conclusion:

Land already committed to low density residential and traffic circulation generally precludes higher densit development. However, the city may wish to consider a medium density Planned Unit Development (P.U.D.)

designation.

This land assessment indicates that two limiting factors exist in Coos Bay: a few areas requiring additional drainage provisions and areas exhibiting slopes up to 30%. Although buildable, these lands will require other than standard construction practices. Obviously, such requirements will raise the cost of housing which is a prime consideration in meeting the affordable housing need of city residents. For instance, construction in areas of excessive slope definitely has a bearing upon increased housing costs. The Salem Home Builders Association has provided the following information regarding these construction costs.

> The cost impact of moving construction from flat land to the "hills," a current thrust of land use planning, is significant.

Three elements create the additional costs: (1) Added construc tion costs both for the unit (excavation, for example) and for utilitie and access; (2) generally largar unit (daylight basement, for example); and (3) special design requirements necessitating designers, architects or engineers and "customizing;" i.e. you don't build a uniform house plan in hills.

The Association goes one step further and estimates the relative home building cost increments as the percentage of slope increases.

Table 5.8-8

## RELATIONSHIP OF BUILDING COSTS AND PERCENTAGE OF LAND SLOPES

% of Slop	e —	_			 					 1	٩d،	de:	d Cost of Home
0-5%													No added cos
5-8%													10 to 125 505
8-12% .				٠		-			٠				505
12-15%.									٠				50 to 759
18% plus		_	-										100% and more

Relating this information to Coos Bay's buildable lands shows that two-thirds of these lands will require some added cost to housing because of slope constraints, while one-third presumably will not require inflated housing costs due to special construction practices.

5,4-14

#### ·Table 5.8-9

# TOTAL ACREAGES OF UNDEVELOPED LANDS IN COOS BAY BY PERCENTAGE OF LAND SLOPE

% of Slo	) pe	2					,				Acres	(% of	tota	1)
0-5% . 6-15% 16-30%										•	281 323 324	( 3:	0%) 5%) 5%)	•
	7(	T	AL			•		•	•		928	(10	0%)	

#### Conclusions

- There is a total of 928 acres of buildable land in the city of Coos Bay.
- Principal building constraints are minimal drainage problems and excessive slopes.
- Approximately 30% of these lands exhibit no major building problems, and, therefore, should not require additional housing costs to offset the above-standard construction required to build safely.

## Facilities and Services Constraints

Another factor for evaluating buildable lands is the ability and ease of providing utility services, such as water and sewer lines. The ability to provide service becomes rather undebatable in light of current technological capabilities. However, development constraints may arise when varied costs are considered. For example, it may be possible to extend services but physical land characteristics require uncommon construction techniques and, of course, additional costs. The ability to provide water and sewer service to the undeveloped parcels of land in the city is described below.

## Undeveloped Lands Analysis -- Water Service

According to the Coos Bay-North Bend Water Board, it is possible technologically to provide water as needed for development anywhere within the Coos Bay area. However, other factors may increase the cost or delay the extension of service. The following assessment is based upon both cost and physical constraints.

- $\frac{\text{Parcel A. North Empire Waterfront Area--}}{\text{in the surrounding developed areas.}} \text{ There are no costly problems to extend}$
- $\frac{\text{Parcel B. North Empire Area.}}{\text{exist in the surrounding developed areas.}} \text{Water lines}$  blems to extend these lines.
- Parcel C. Jensen Area--Water lines already exist in the surrounding developed areas. There are no costly problems to extend these lines.
- Parcel D. South Empire Area--There is no problem to extend water lines in this area, except through property owned by the County that lies within the parcel. Obtaining an easement from the County may hamper development.
- Parcel E. Terramar Area--Obtaining an easement here also precludes unencumbered extension of water service.
- $\underline{\text{ParceI F. 23th Street Area--No problems extending water lines are foreseen.}$
- Parcel G. Pony Creek, north of Ocean Boulevard--No problems extending water lines are foreseen.
- Parcel H. Undeveloped Westgate Plat—The provision of water through most of Parcel H would be relatively easy, except for a small area adjacent to the Water Board property. This area would require an additional water storage tank, thereby, increasing the cost of development.
- Parcel I. Waterboard Area--This tract, presently designated as watershed, can be provided service on the lower portion by the extension of lines from existing development. However, a slight cost would be incurred due to the topography. The upper portion is contiguous with a portion of Parcel H and would also be served by the additional water storage tank.
- Parcel J. Engelwood-Mest Marshfield Area—The lower area of Parcel J would be somewhat costly in time and money to develop because of easements necessary from various property owners. The upper portion would be most costly due to extending water lines over the more rugged topography.
- Parcel K. West Telegraph Hill Area--There are no problems foreseen here as the area is surrounced by long established development.

5,4-15

Undeveloped Lands Analysis -- Storm and Sanitary Sewer Service

As with water service lines, it is technologically possible to provide sewer services to all undeveloped areas in Coos Bay. Similarly, development restraints occur with the relative cost of constructing extra lines or pumping stations due to topographic characteristics. Most of the undeveloped parcels of land are relatively easy to sewer with gravity lines. Increased costs are possible in some areas, however. Parcels G and F would require the addition of pumping stations where gravity flow lines are unfeasible. Parcel I can be served either by gravity flow lines or by a pumping station. Parcel J presents similar problems as it does for the extension of water lines. In the lower portions, it would be relatively easy to install gravity lines; the upper portions would become increasingly more difficult as slope and terrain become more severe.

#### Conclusions

- The availability of water and sewer services to undeveloped areas in Coos Bay pose no restraining problems to development. Technologically, service can be provided to all areas.
- Restraints may occur when the cost of providing service in some areas may be more expensive than others due to topography or other facility-related constraints (e.g., reservoirs, pump stations).

Urban Growth Boundary Assessment

## Need for an Urban Growth Boundary

The preceding assessment of population growth needs and land suitability provides the background information to evaluate the necessity of extending the sphere of urbanizable lands around the City of Coos Bay. The findings indicate that the city population is predicted to increase by 50% as the year 2000 approaches, with a concomitant need for 3,674 more housing units. The amount of vacant, developable lands, estimated to total 928 acres must accommodate this growth.

<u>Residential</u>.--The locational and physical characteristics of this buildable land prescribe its use as residential. Moreover, its development has been found to have few physical or service impediments. Therefore, the adequacy of this land to handle the population increase is dependent upon the desired mixture of housing and realistic densities of dwelling units per acre.

Based upon computing the number of lots within a net acre (which excludes approximately 25% of a gross acre for public rights of way), the per type and total number of dwelling units required has been determined. (Table 5.8-10) As this table reveals, the city will require an additional 453 acres to house the projected population at the mixture established earlier in this inventory.

A comparison of the 463 acres needed and the 928 acres available indicates that there is twice as much residential property available within the city limits than is predicted to be needed. Approximately 60% of the available land exhibits relatively flat terrain, and is, therefore, highly buildable. (reference Table 5.8-9)

TABLE 5.8-10

ACREAGE NEEDED TO MEET ESTABLISHED HOUSING NEED -- 2000

	<del></del>		
Housing Type	Units Needed	Units per Net Acre ^a	Acres Needed
Single-family	873	5.4	160
Duplex ^b	114	4.0	28
Multiple-family	1,711	13.0	131
Mobile Home	862 <u>.</u>	6.0	144

TOTAL 463

These figures represent minimum lot sizes on a net acre. Lot sizes are current ordinance requirements -- 6,000 square feet for a single-family unit, 8,000 square feet for a duplex, 2,500 square feet as an average for apartments, and 5,445 square feet for mobile homes. A net acre equals the gross acre less the amount of land needed for public rights of way, generally 25% of a gross acre.

bone duplex structure requires 8,000 square feet but yields 2 units; therefore, 114 structures are required rather than 228 units.

<u>Commercial</u>.--Commercial and light industrial lands are adequate with a continuation of past land use trends and redevelopment of underutilized properties to enhance the commercial trade and service component of the city's economy.

Major Industrial.—Lands suitable for major industrial uses have been found to be woefully lacking in the city now with little chance for improvement when considering the characteristics of vacant, zoned lands available, and the past tendency for these lands to be used for convercial uses instead. Solutions of this problem through an extension of an urban growth boundary would also entail taking in an intervening semi-urban residential development, most of which would not meet city development requirements. Other solutions might involve plans to undertake the redevelopment of lands within the city limits.

5,4-16

902

## County "Islands."

Two parcels of unincorporated land lie between Coos Bay and North Bend. (Map 5.8-2) Parcel A is approximately 118 acres and is located north of Lakeshore Drive and is adjacent to newly developed residential areas of both cities. It is surrounded by residentially-zoned property in both cities and is presently zoned Interim Rural Residential-5 (IRR-5) by Coos County signifying 5-acre minimum lot sizes for homesites. Although a natural ridge Tine bisects the parcel, it is possible to serve the property by sanitary sewer from either city; water is available from the Coos Bay-North Bend Water Board, and the land lies within the Coos Bay School District \$9.

Parcel B is somewhat smaller, a little over 14 acres, and lies in the Pony Creek drainage. It is currently zoned IRR-5 by Coos County and is surrounded by residentially zoned property and a strip of commercial along Woodland Drive. It is within close proximity to recently developed commercial property at the intersection of Newmark and Broadway, medical offices, and apartments. The City of North Bend already has laid sanitary sewer lines throughout the western portion of the property. Coos Bay's closest line is slightly more than 100 feet from the parcel's eastern boundary. Like the other parcel, city water service is readily available and it also lies within the boundaries of Coos Bay's School District #9.

Due to the unique locations and characteristics of these parcels they should be designated urbanizable by either or both of the cities during the policy-making process after weighing primarily need and the ability to provide public facilities and services.

## Urban Growth Management Alternatives

The outcome of these public policy decisions will either delineate the present city limits as a UGB, or if an extension of Coos Bay's boundary is found to be indispensible to absorb future growth, a precise line will be delineated south of the city limits, or around all or part of the County "islands." In either case, a mutual agreement by Coos Bay and Coos County must be formalized recognizing this UGB designation, also recognizing a reciprocal agreement between Coos Bay and North Bend when the "islands" are involved.

This management agreement is necessary for two reasons. One, it is a prerequisite to acknowledgement by LCDC of Coos Bay's comprehensive plan. Secondly, it is a sensible means to coordinate development within a UGB in the best interests of both jurisdictions. The land within a UGB is targeted to contain urban-type development and will require a certain level of facilities and services to support such land use. Explicit coordination between the County and City regarding land use regulations, special district needs, and the provision of other services will avert potential land development practices that are incompatible with City standards if and when these urbanizable lands are annexed into the city. There are four management alternatives that can be selected within the UGB: (1) the City regulations apply and the City provides services, (2) the County regulations apply and the County provides services, (3) a special district can be formed to provide

services, and (4) the urban growth area could incorporate and devise their own regulations and service provision.

The questions of whether City of County zoning, subdivision, and property development standards will apply to urbanizable lands is a critical one if the UGB is located outside existing city limits. The County's land use and development policies are less stringent than those endorsed by the City.

Development under County guidance will result in costs borne ultimately by the City to amend these inconsistencies. This issue must be seriously considered before a decision to create an urban growth boundary outside the city limits is achieved.

## Community Attitudes Toward Growth

A sampling of the residents in Coos Bay were polled in 1977 on many community issues. The statement, "City growth should be limited by the City's ability to provide services," drew overwhelming support by 62%. (Appendices ) This may indicate that residents wish the City to cautiously approach the subject of urban growth especially in relation to the monetary expense involved.

Attitudes of residents living in areas within conceivable UGB's have not been gathered at this time. This input is crucial in formulating a responsible City and County decision.

## Conclusions

- Based solely on established need for more residential land, the City
  of Coos Bay retains a sufficient amount of undeveloped land to absorb
  growth by the year 2000.
- These residential needs can be met without excessive added cost due to land constraints.
- 3. A management agreement must be made between Coos Bay and Coos County and involving North Bend to formally designate an urban growth boundary (UGS) and to determine which jurisdiction will regulate future development within the urban growth area and will provide necessary facilities and services.
- 4. Citizens of Coos Bay, responding to a community attitude survey, strongly feel that the City's growth should be limited by the City's ability to provide services to the newly developed areas.

# SUPPORTING DOCUMENTATION

COMPREHENSIVE PLAN: Urban growth management policies

## Urban Growth Management

#### Problem

Oregon law requires the establishment of urban growth boundaries (UGB's) "to identify and separate urbanizable land from rural land. (LCDC Goal 14)

Unincorporated land areas adjacent to the City of Coos Bay are either currently developed, being developed, or planned to be developed with residential, connercial and industrial type urban uses. Yet, these areas lack the full range of public facilities and services that are generally deemed necessary to protect the health, safety and welfare of area residents.

#### Issues

- Bunker Hill, Libby, Barview, Charleston, and other unincorporated areas
  generally adjacent to Coos Bay's 1979 City limits have land use trends
  that are committed to urban-type development, but their level of support
  facilities and services are not adequate to support their anticipated
  growth. Annexation to Coos Bay would provide one solution to developing
  upgraded support systems for outlying areas. Is this alternative
  appropriate for Coos Bay taxpayers and property owners of outlying areas?
- Coos Bay has a surplus of buildable land capable of supporting the city's anticipated growth. Does the City need to extend its corporate boundary to provide services to outlying areas? Under what circumstances should the City extend its corporate boundary?
- 3. Coos County's land use and property development requirements that apply to the unincorporated areas adjacent to Coos Bay have not traditionally conformed with lity regulations; for example, County ordinances allow mobile homes on individual lots in conventional neighborhoods and permit street and other public works improvements that would be substandard within Coos Bay. Yet, these areas may one day be annexed to the city. What can be done to prevent the Coos Bay texpayers from "inheriting" areas with non-conforming land uses and substandard street, sewer, and water infrastructure?

#### Goal

The City of Coos Bay shall designate, maintain and amend when appropriate, an urban growth boundary (UGB) designed to restrain urban sprawl and minimize adverse "cost of growth" impacts on city taxpayers.

7-26

#### -Strategies

- GN.1 Coos Bay shall enter into a formal UGB Management Agreement with Coos County which shall accomplish at least the following stated objectives:
  - (1) establishes the physical location of the Coos Bay UGB,
  - (2) establishes the means by which the coordinated management of the unincorporated area(s) within the UGB shall be undertaken, and
  - (3) establishes specific procedural and substantive requirements (cited elsewhere in these policies) to be followed in considering the appropriateness of modifications to the UGB.
- UGM.2 Coos Bay shall act to separate its urban lands from adjacent rural and semi-urban lands to the south by adopting the 1931 Coos Bay corporate limits as the city's urban growth boundary: However, the two unincorporated "islands" between Coos Bay and North Bend shall be considered urbanizable and shall be treated by a separate UGB policy. This policy is based on the recognition that:
  - the city contains approximately 928 acres of undeveloped land which
    is buildable and more than adequate to accommodate future residential
    growth;
  - (2) the city contains adequate land suited for expanded commercial development. Although there is a recognized need for industrial or marine industrial development; this problem shall be resolved by other means;
  - (3) restraining city growth to Coos Bay's 1981 corporate areas to the south fosters the orderly and economic provision of public facilities and services within a vast, undeveloped urtan area, while ensuring that the city can provide an adequate level of public facilities and services to present and future residents prior to accepting additional burden;
  - (4) designating the 1981 corporate limits as the UGB encourages urban "in-filling" and thereby promotes the maximum efficiency of land uses within Coos Bay;
  - (5) designating the 1981 corporate limits as the UGB fosters environmental conservation by preserving the land resource until shown appropriate for development, fosters energy conservation by minimizing sprawl and protects the integrity of the "sense of community" of adjacent semi-rural unincorporated areas; and
  - (6) designating the 1981 corporate limits as the UGB is based on the consideration of LCDC requirements for preserving agricultural lands, thereby assuring that such lands are not converted to more intensive land use activities until so justified.
- UGM.3 Coos Bay shall reach a mutual agreement with North Bend and Coos County to designate an urban growth boundary around approximately six acres of unincorporated land bordering Coos Bay's city limits along Woodland

7-27

Drive. It is appropriate to designate this land for commercial and multiple-family residential uses. This policy is based on the recognition of the unique locational characteristics of this property, and that:

- (1) The City of Coos Bay has not demonstrated a need to expand its UGB to accommodate future residential growth; however, an increase in the commercial trade and service sector could greatly benefit residential lands.
- (2) Due to the lack of viable industrial lands, the city should strengthen its employment and economic structure by adding to lands designated for retail trade and service. Portions of this land to be designated for multiple-residential are already within the city limits of Coos Bay.
- (3) The city can adequately provide public facilities and services to this portion of the unincorporated property, whereas, these improvements can more easily be made by North Bend for the remainder.
- (4) This land is appropriately committed to future urban development because of its location.
- (5) Designation of this land within Coos Bay's USB will promote the logical extension of uses already within the city limits, will promote more intensive development along a major arterial street.
- (6) The unique location of this property precludes its use for agricultural purposes.
- UGM.4 Coos Bay shall consider all lands within its corporate limits as available over time for urban uses, except where natural hazard and other land characteristics preclude urban type development. This policy is based on the recognition that (1) lands contained within incorporated cities are are appropriately targeted toward urban development, but that (2) such development should be consistent with sound development practices.
- UGM.5 Coos Bay shall review the location of its urban growth boundary at least every two years to determine whether or not sufficient urban and urbanizable lands exist to accommodate anticipated commercial, industrial and residential growth, recognizing that changing circumstances may necessitate boundary revisions.
- UGM.6 Coos Bay shall follow the decision-making procedure detailed in LCDC Goal #2, including agency and special district coordination, when considering urban growth boundary modifications. Such modifications shall be supported by findings based on consideration of the following questions:
  - (1) Why should the requested use(s) be provided for within Coos Bay's UGB?
  - (2) What alternative locations within the city and/or UGB could be used for the proposed use(s)?

7-28

- (3) What are the economic, environmental, social and energy consequences that would result from the UGB modification?
- (4) Would the UGB modification foster orderly urban development and compatible land uses, or would it encourage sprawl and incompatible activities?
- UGM.7 Coos Bay shall refrain from establishing strategies to provide for the control of lands outside its corporate limits unless (1) those lands are subsequently designated as being with Coos Bay's UGB, and/or (2) unincorporated adjacent lands are designated as urbanized but not within Coos Bay's UGB and those same areas anticipate requesting services from the City of Coos Bay. In the case of the latter, Coos Bay and Coos County shall negotiate a communication mechanism through which Coos Bay can comment on development proposals that affect its facility and service capabilities. This policy is based on the recognition that adjacent urban-type development could adversely impact the city.
- UGM.8 Coos Bay shall not annex lands unless findings can be established to prove that such urban land use(s), (1) cannot be satisfied by lands already within the corporate limits, (2) fulfills a specific community need, (3) can be achieved through the orderly, economic provision for public facilities and services, and (4) addresses applicable LCDC goals. This policy is based on the recognition than an annexation request is a land use decision that should be made in a consistent and judicious manner.

## SUPPORTING DOCUMENTATION

3. COMPREHENSIVE PLAN: Land Use Plan 2000, Urban growth area

7-29

54-20

#### LAND USE PLAN 2000: Plan Objectives

#### Urban Growth Area

Objective 1.—The city has designated and justified an urban growth boundary around a portion of unincorporated land between Coos Bay and North Bend which is contiguous to North Bend's urban growth area. The city shall establish land use designations and management procedures in coordination with Coos County and North Bend. (Map 8.2-2)

Rationale --This land lies totally between the cities of Coos Bay and North Bend. Due to this unique locational factor and the undeveloped state of the property, the land has been designated urbanizable. Sewer and water services are readily available to the property by the city. (UGM 3)

Implementation.--This plan will specify land use designations for this urban growth area. Further, it is the city's intention to negotiate a three-party agreement among Coos Bay, Coos County, and North Bend for the land use management of this area.

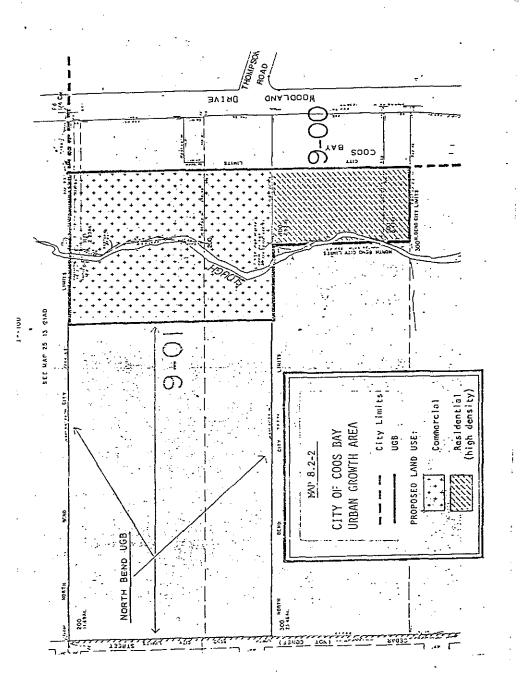
- 1. Parcel A constitutes approximately 5.5 acres and is bordered on the east by the City of Coos Bay, on the north by the City of North Bend, to the west by the North Bend urban growth area, and to the south by the North Bend city limits and Parcel B of Coos Bay's urban growth area. This land is intended for commercial uses. Coos Bay has indicated in the comprehensive plan inventory that suitable industrial land is lacking, primarily due to the historical use of industrially zoned land for commercial purposes. This fact predisposes the city's reliance on commercial trade and service activities for an economic base. This property is contiguous to similarly zoned land in the city, will meet city needs for more commercial land, and will satisfy a request of the property owners. (Appendix N)
- 2. Parcel B totals approximately 1.4 acres. It is surrounded to the east by the City of Coos Bay, to the north by Parcel A of Coos Bay's urban growth area, and to the west and south by the City of North Bend. The area is part of two legally described parcels of land which have been split in two by County jurisdiction on the west and city jurisdiction on the east. Therefore, it is appropriate to place the unincorporated portions within the city's UGB. It is proposed to designate this land for higher density residential uses. Coos Bay is attempting to increase its stock of land zoned for multiplefamily development in order to lower housing costs. This action would help satisfy that aim.

Objective 2.--It is recognized by the city that there are lands contiguous to the city limits which do not warrant inclusion in an urban growth boundary at this time. However, the lands do possess characteristics which may affect developed uses in the future. The city desires to have these areas included as areas of mutual interest between Coos County and the city. (:...

Rationale.--The area between the Libby and Charleston urban growth boundaries extending from the city limits to south of the Libby/Charleston County Road is contiguous to the city's southern limits, and contains part of the area's watershed and portions of the Charleston Sanitary District. Moreover, this area is traversed by the newly improved roadway which links two county urban growth areas and directs traffic through the Englewood neighborhood of the city.

The North Spit from the ODNRA boundary to its southern tip lies within the boundaries of Coos Bay School District #9. The District has voiced concern over the designation of a majority of the unincorporated "islands" between Coos Bay and North Bend as part of North Bend's urban growth boundary. The District fears that future change in jurisdictional status will add impatus to have these lands reclassified to School District #13. Because compelling reasons of need and essential services were in North Bend's favor, Coos Bay agreed to the division of these "islands." A mutual interest classification will keep the city informed of major land use changes. (Appendix N)

<u>Implementation.</u>—The city will seek the approval of Coos County to include these lands within areas of mutual interest through the urban growth management agreement.



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## 5.5 BAY AREA

INTRODUCTION

POPULATION AND HOUSING GROWTH

APPROXIMATION OF ACREAGE NEEDED FOR HOUSING GROWTH

BUILDABLE LANDS SURVEY

INDUSTRIAL AND COMMERCIAL LAND NEEDS

OPEN SPACE AND RECREATION

AGRICULTURAL AND FOREST LANDS CAPABILITY

SOIL SUITABILITY FACTORS

PUBLIC FACILITIES AND SERVICES

SOCIO-ECONOMIC FACTORS AS RELATED TO HOUSING OPPORTUNITIES

PROPOSED URBAN GROWTH AREAS

# 5.5 UNINCORPORATED COMMUNITIES

## 5.5. UNINCORPORATED COMMUNITIES

# 5.5.1. Urban Incorporated Communities

## 5.5.1.1 Introduction

Coos County has three (3) areas, which qualify as (Bunker Hill/Bay Park, Barview, and Charleston) urban unincorporated communities. These urban communities are located in close proximity to the Cities of Coos Bay and North Bend. Bunker Hill/Bay Park lies at the south entrance to Coos Bay, while Charleston and Barview are at the west entrance to the Cities of Coos Bay and North Bend.

Oregon Administrative Rule (660-022-0010) has defined "unincorporated and urban unincorporated communities". The following definitions have been utilized for the determination of the "unincorporated communities":

<u>Unincorporated Community</u> — means a settlement made up primarily of lands subject to an exception of Goals 3 and 4 and was identified as a rural community, service center, rural center, or resort community and met definition of one of the four types of other rural communities.

<u>Urban Unincorporated Community</u> – has the following characteristics of 150 permanent residential dwellings, mix of three or more public, commercial or industrial uses, served by a community sewer and water system.

The County applied plans and land use regulations to ensure parcels added to the urban unincorporated communities have sewer and water services provided to parcels which are currently developed. These parcels which are developed have been zoned in the past to accommodate the urban atmosphere which is, and has continued to be there.

Bunker Hill/Bay Park, Barview and Charleston have urban facilities and services (water, sewer, transportation, police, fire, and schools) to support the urban development which occurred in these areas.

The urban unincorporated communities have provided water and sewer services. Bunker Hill/Bay Park's water is provided by the Coos Bay-North Bend Water Board facilities. There is no small public or private water district in the Bunker Hill/Bay Park urban area; its sewer system is served by the Bunker Hill Sanitation District which currently has 434 hookups.

Water for the urban unincorporated community of Charleston is provided by Coos Bay-North Bend Water Board; sewer services are provided by Charleston Sanitation District which currently has approximately 550 hookups with a potential of 725 hookups.

Barview is an urban unincorporated community which is served by Coos Bay-North Bend Water Board; sewer system is served by the Charleston Sanitation District. Barview has approximately 1,500 hookups with a potential of 4,600 hookups.

Cobs County provides police protection for these urban areas; schools located within the upan areas are provided through the school district within the neighboring city; fire potection is provided through a volunteer fire station, which is governed by the nearest fire strict for that urban area. Highway 101 passes through or, is adjacent to these urban areas.

Loning within the urban unincorporated communities is designated for residential use, which meets Statewide Planning Goal 10. These urban areas are physically developed and irrevocably committed to the uses and activities which currently exist within these boundaries.

Coos County has not relied upon the use of land within these urban unincorporated communities as the basis for determining lands outside the boundaries which are in compliance with goals relating to forestry or agriculture and leaving these properties outside of the boundaries and in resource designation.

In 1985, Coos County adopted Volume II of its Comprehensive Plan and Implementing Ordinance, which protects the environmentally sensitive areas of the estuary and the coastal shorelands.

Coos County's urban unincorporated communities are areas within the County which meet the definition of "Developable Lands" as defined in OAR 660-21-010(5). Water and sewer services provided to the urban unincorporated communities in Coos County have projected ahead for long-term need.

## a. Bunker Hill

- i. Land Use Bunker Hill is an "urban unincorporated" area immediately adjacent to the City of Coos Bay. The largest share of this community is south and east of State Highway 101. The area is primarily residential with a large number of vacant lots within the residential areas. The major commercial uses have developed in a strip commercial manner along Highway 101 from Barry Street east to Ellen Street. There is an industrial area that is also adjacent to Highway 101 from Everett Street south to the "Urban Community Boundary". The two major public uses in the Bunker Hill area are an elementary school and offices of the U.S. Forest Service.
- ii. Zoning Commercial uses along Highway 101 are zoned Commercial (C-1), and the industrial uses adjacent to Highway 101 described above are zoned Industrial (IND). The residential area between the area designated Commercial (C-1) and the northern boundary is all zoned Control Development-5 (CD-5) although the area is comprised of residences on small lots. The remainder of the residential areas within Bunker Hill are all zoned Urban Residential, Single Family (UR-1), Urban Residential-Mobile Homes, Duplexes, or Planned Unit Development (UR-2) or Urban Residential-Multi-family (UR-M). Approximately 50% of the area is zoned Urban Residential-2 (UR-2); the western most part of the area that is predominately vacant is zoned Urban Residential-1 (UR-1); and the area immediately south of the commercial area is zoned Urban Residential-Multi-family (UR-M).

## iii. Public Facilities

A. Roads and Streets - Bunker Hill is located along the Pacific hast Highway 101. The coast highway is a State principal arterial highway which connects to the State of Washington to the nort and California to the south. The highway has 4 lanes and has limited access in the Bunker Hill area. Access to shopping, business or entertainment in the Coos Bay/North Bend area for Bunker Hill residents is via Highway 101 because of the geographical separation caused by Coal Bank Slough. Rebuilding the intersection of Highway 101 and the Coos River Highway in Bunker Hill is one of the priorities of the Oregon Department of Transportation. Highway 101 is owned and maintained by the Oregon Department of Transportation who also controls all access to the highway.

County Rural Local Roads provide interior access and egress to Highway 101. Some streets in the Bunker Hill area are dedicated public streets not owned or maintained by the Coos County Highway Department. A number of these streets are winding and unimproved.

- B. Public Water Systems The Bunker Hill urban area is served by the Coos Bay-North Bend Water Board facilities. There are no small public or private water districts in the Bunker Hill urban area registered by the Oregon State Health Division.
- C. Public Sewer Systems Bunker Hill is served by the Bunker Hill Sanitation District. The district currently has 434 hookups which represent a population of approximately 870 users. The district is currently in the process of annexing properties to the south of the current district boundary into the district. This would add a maximum of 12 hookups. Projections are that almost zero development will take place within the district as almost all of the developable lots are already developed. Some of the lines were installed in the early 1950s when the district was formed. These are being replaced on an as needed basis. The present pumping station has plenty of capacity for the present and future demands. The wastewater is conveyed to the City of Coos Bay Treatment Plant No. 2.

## b. Charleston

i. Land Use - Charleston is a small fishing community located southwest of Coos Bay on both sides of Cape Arago State Highway 240. This community is at the confluence of the Joe Ney Slough and the Coos Bay River Estuary, this location is very close to where the river enters the Pacific Ocean. Charleston is the site of the Coos Bay Fishing Fleet and a major sport fishing marina operated by the Oregon International Port of Coos Bay.

There are a few fishing and tourist oriented uses along Cape Arago Highway and along Boat Basin Drive including a motel and restaurant. Several small areas are also utilized for fish processing and related boat repair facilities. The University of Oregon Marine Science Center and an elementary school are the two major public uses located in Charleston. A large portion of the residential area is fully developed with the exception of some vacant lots on sloped sites.

ii. Zoning - The commercial and most of the industrial areas are zoned Commercial (C-1). The remainder of the community is zoned Urban Residential (UR-2).

# iii. Public Facilities

A. Roads and Streets - Charleston is located on State Highway 240 which is the Cape Arago State Highway. Highway 240 is classified as an "urban collector". The drawbridge over South Slough on Highway 240 was replaced in 1991 to enhance the compatibility between the water transportation (commercial and sport fishing) and the highway traffic. The Cape Arago State Highway connects the Coos Bay area with the Coos County and Oregon State Parks southwest of Charleston. Highway 240 is owned and maintained by the Oregon Department of Transportation (ODOT). All access is controlled by ODOT.

Charleston is accessed from the east by McLain-Libby Road, a County rural major collector road. This road provides access to State Highway 101. Charleston is accessed from the south by Seven Devils Road (County rural major collector road). The residential areas are accessed by County rural local roads/streets; these roads/streets are owned and maintained by Coos County Highway Department, and all access is controlled by the Coos County Highway Department.

- B. Public Water Systems The Charleston area is served by the Coos Bay-North Bend Water Board facilities. There are no small public or private water districts in this urban area registered by the Oregon State Health Division.
- C. Public Sewer Systems The Charleston area is served by the Charleston Sanitation District. The District is broken into 7 basins and 2 sub-basins with pump stations serving each basin. Charleston is located in basin No. 6 which currently has approximately 550 hookups, with a potential of 725 according to the Charleston Sanitation District's Master Plan, prepared in November 1996. The wastewater is conveyed to the City of Coos Bay's sewage treatment plant No. 2. The 550 hookups represent a population of approximately 1,100 residences.

### c. Barview

- i. Land Use Barview is a long linear community that has developed on the southeast side and adjacent to the Coos Bay/River. The community is primarily residential with a small amount of commercial uses scattered along Cape Arago State Highway. The residential uses are a mixture of nice quality homes west of the highway and sited on the bay, smaller homes on very small lots, and manufactured homes and recreational vehicle parks. There are also a few very nice historic homes throughout the area.
- ii. Zoning Most of the community is zoned Urban Residential-2 (UR-2); residences west of the highway are all zoned Urban Residential-1 (UR-1) and there is a small area zoned Urban Residential-Multi-family (UR-M). There are two small areas zoned CD-5.

# iii. Public Facilities

A. Roads and Streets - Barview is located on State Highway 240 which is the Cape Arago State Highway. Highway 240 is classified as an urban collector. The drawbridge over South Slough on Highway 240 was replaced in 1991to enhance the compatibility between the water transportation (commercial and sport fishing) and the highway traffic. The Cape Arago Highway connects the Coos Bay area with the Coos County and Oregon State Parks southwest of Charleston. Highway 240 is owned and maintained by the Oregon Department of Transportation; all access is controlled by ODOT.

Barview is accessed from the east by McLain-Libby Road, a County rural major collector road. This road provides access to State Highway 101. Barview is accessed from the south by Seven Devils Road (County rural major collector road). The residential areas are accessed by County rural local roads/streets; these roads/streets are owned and maintained by Coos County Highway Department, and all access is controlled by the Coos County Highway Department

- B. Public Water Systems The Barview area is served by the Coos Bay-North Bend Water Board facilities. There are no small public or private water districts in the Barview area registered by the Oregon State Health Division.
- C. Public Sewer Systems The Barview area is served by the Charleston Sanitation District. The District is broken into 7 basins and 2 sub-basins with pump stations serving each basin. Basins 1 through 5 and Basin No. 7 serve this urban area. Barview has approximately 1,500 hookups with a potential of 4,600 according to the Charleston Sanitation District's Master Plan prepared in

November 1996. The wastewater is conveyed to the City of Coos Bay's sewage treatment plant No. 2. The 1,500 hookups represent a population of approximately 3,000 users.

Boundary expansion of the urban unincorporated communities could not be demonstrated by the long-term need for housing and employment. The population forecast conducted by Coos County showed the population numbers had declined in the 80's, projected figures for the year 2020, estimate the County's population to gradually climb to 69,513. The figures for 1980 were 64,047 residents; as you can see it's taking 40 years to gain 5,466 people (See Volume I, Part 2, Sections 2.3 & 4 for detailed population/demographic information).

# 5.5.2 Rural Unincorporated Communities

# 5.5.2.1. Introduction

a. Rural Community Selection Criteria - The Land Conservation and Development Commission adopted new rules for unincorporated communities initially in 1994 and revised the rules in 1997. The purpose of the rule is to establish a statewide policy for the planning and zoning of unincorporated communities that recognizes the importance of communities in rural Oregon. The rule is intended to expedite the planning process for counties by reducing the need to take exceptions to Statewide Planning Goals when planning and zoning unincorporated communities. The rule interprets Goals 11 and 14 concerning urban and rural development outside urban growth boundaries and applies only to unincorporated communities as defined in OAR 660-022-0010.

The following three community types are defined in OAR 660-022-0010:

- i. Resort Community primarily recreation or resort uses and residential and commercial uses; provides temporary and permanent residential occupancy, including overnight lodging.
- ii. Rural Community primarily residential dwellings but at least 2 other land uses that could include commercial, industrial, or public uses (schools, churches, grange halls, post offices).
- iii. Rural Service Center primarily commercial or industrial uses providing goods and services to the surrounding area and to persons traveling through the area, including some permanent residential dwellings.
- b. Qualifying Communities The following fifteen communities meet the criteria established by the Administrative Rule and have been categorized according to the location and existing land use:

Rural Service Cent	Rural	Rural Communities		
Allegany	Sumner	Arago	Bridge	Riverton
Fairview	Sunnyhill	Broadbent	Dora	
Laurel Grove	2	Glasgow	Greenacres	
Norway		Hauser	Millington	

924

c. Unqualified Communities - The four rural communities of Hollow Stump, Lower Lee Valley, Dew Valley and Cooston were included in LCDC's adopted Unincorporated Communities List on January 30, 1997. As stated in the introduction to the list, "As with the 1993 survey, not all the areas listed in this, the amended (1997) survey, will qualify as an 'Unincorporated Community' using the definition in Division 22". From a field inventory of these four communities, it was determined that they did not comprise the land uses described above. Based on this inventory, as well as a review by county staff and DLCD staff, no further analysis of these communities was conducted.

Bandon Dunes was also placed on the LCDC adopted list in 1997. Bandon Dunes is not analyzed as a rural community for the following reasons: In 1997, Coos County approved Bandon Dunes Resort through a "goal exception" process. Through this process, designated zoning districts were established within the resort's property boundaries. Because of the County's recent review and approval of the resort, and because specific zoning categories were assigned to accurately reflect the intended uses and activities at that time, Coos County decided not to include the Bandon Dunes Resort in the Unincorporated Rural Communities review.

# 5.5.2.2. Existing Conditions

The existing conditions of the qualifying communities are detailed in the following section. The existing land use, zoning designations and the availability of public water and sewer as well as the road or street access, is described. In addition, a description of the new community boundary and proposed zone changes are outlined for each community.

### Rural Service Centers

- i. Allegany
  - 1. Land Use Allegany is a very small community along the Coos River Highway No. 241 at the intersection of the West Fork of the Millicoma River and the Millicoma River. The community is primarily a rural service center with very few residences.
  - 2. Zoning designated Rural Center (RC). There is a store, church and a few residences in this. An area east of the Rural Center (RC) is designated Rural Residential-2 (RR-2), but only one residence has been developed in this location.
  - 3. Public Facilities
    - A. Roads and Streets Allegany is located on the Coos River Highway No. 241. This highway is classified as a State rural major collector. This highway starts at the Pacific Coast Highway 101 in Coos Bay and dead-ends at Golden and Silver Falls State Park, northeast of Allegany. It carries logging as well as seasonal hunting and tourist traffic. The

highway has a history of periodic slides and closures for short periods of time, usually in the winter months. The Coos River Highway is owned and maintained by the Oregon Department of Transportation; all access to the highway is controlled by O.D.O.T.

West Fork Millicoma Road (County), intersects the Coos River Highway at Allegany. This road is classified as a County rural minor collector. It serves the area north of Allegany and carries local, logging, and seasonal hunting traffic. West Fork Millicoma Road is owned and maintained by the Coos County Highway Department; all access is controlled by the Coos County Highway Department.

- B. Public Water Systems There are no public water systems in Allegany that are currently registered with the Oregon State Health Division. Residences and businesses get their water from wells or springs that are in the area.
- C. Public Sewer Systems There are no public sewer systems in Allegany; residences and businesses use individual on-site septic systems.

# ii. Fairview

- 1. Land Use Fairview is a very small community at the intersection of Coquille Fairview County Road No. 9 and Fairview McKinney Road No. 60. The predominant land use is an electrical substation; because of the lack of a concentration of residences, the community has been designated as a Rural Service Center.
- 2. Zoning All of the commercial, public, and industrial uses as well as a few residences are zoned Rural Center (RC). There are large areas zoned for Rural Residential-5 (RR-5) in this area.

# 3. Public Facilities

A. Roads and Streets - Fairview is located at the intersection of the Old Coos Bay Wagon Road and the Coquille Fairview Road approximately 9 miles northeast of the City of Coquille. The Coos Bay Wagon Road runs parallel to Highway 42 and provides an alternate east-west connection between the Coos Bay area and Roseburg to the east. The road is classified as a County rural major collector road. The Coos Bay Wagon Road provides transportation for local residents, logging activities and seasonal access for hunters. The Coquille Fairview Road provides access from Coquille to the LaVerne County Park, where it dead-ends just east of the park. Coquille Fairview Road is classified as a County rural major

collector road. Both roads are owned and maintained by the Coos County Highway Department; all access is controlled by the Coos County Highway Department.

- B. Public Water Systems There are no small community or private water systems registered by the Oregon Health Division. Residences and businesses get their water from wells or springs that are in the area.
- C. Public Sewer Systems There are no public sewer systems serving the Fairview area. Residences and businesses use individual on-site septic systems.

# iii. Laurel Grove

- 1. Land Use Laurel Grove is a long linear community that has developed along Highway 101 south of the City of Bandon. The land use is predominately residential on large, generally linear lots adjacent to the highway. There are some commercial uses at the north end of the community and a major commercial use at the south end. Because of the number of commercial uses and the public use, Laurel Grove has been designated a Rural Service Center.
- Zoning The zoning pattern is reflective of the concentration of commercial uses at the northern and southern ends of the community. Two locations, at the northern and southern ends are zoned Rural Center (RC). The remainder of the residential areas between the two Rural Center (RC) areas is zoned Rural Residential-5 (RR-5).

### 3. Public Facilities

A. Roads and Streets - Laurel Grove is located to the south of the City of Bandon along the Pacific Coast Highway 101. The Coast Highway is a State principal arterial highway which connects to the State of Washington to the north, and California to the south. This highway is owned and maintained by the Oregon Department of Transportation; all access is controlled by ODOT.

Access to some residences not fronting on Highway 101 is via County rural local roads which are owned and maintained by the Coos County Highway Department; all access to these roads is controlled by the Coos County Highway Department.

B. Public Water Systems - There are no public water systems in Laurel Grove that are currently registered with the Oregon State Health Division. Residences and businesses get their water from wells or springs that are in the area.

C. Public Sewer Systems - There are no public sewer systems in Laurel Grove. Residences and businesses use individual on-site septic systems.

# iv. Norway

1. Land Use - Norway consists of a series of small businesses and industries spread along the Coos Bay Roseburg Highway No. 42. There are a very small number of residences located predominately on the east side of the highway on very large lots. Because of the small number of residences, Norway qualifies as a Rural Service Center.

Many properties along Highway 42 are zoned Industrial (IND). There are very few residences, although one area is zoned Rural Residential-2 (RR-2).

# 2. Public Facilities

- A. Roads and Streets Norway is located on State Highway 42 which is the Coos Bay Roseburg Highway. Highway 42 is classified as a principal arterial highway. It is one of the major routes from the Oregon Coast to Interstate 5. Highway 42 is owned and maintained by the Oregon Department of Transportation; all access to the highway is controlled by ODOT.
- B. Public Water Systems There are no public water systems in Norway that are currently registered with the Oregon State Health Division. Residences and businesses get their water from wells or springs that are in the area.
- C. Public Sewer Systems There are no public sewer systems in Norway. Residences and businesses use individual on-site septic systems.

### b. Rural Communities

# i. Arago

- 1. Land Use Arago is a rural community in the middle of the Coquille Valley. This community lies along Beaver Pond Gulch Road, Arago County Road No. 146 and Fish Trap County Road No. 77. The commercial and public uses located in this area qualify Arago as a Rural Community.
- 2. Zoning Approximately one half of the community is zoned Rural Center (RC) and the balance is Rural Residential-2 (RR-2). The commercial use and all of the public uses are in the Rural Center (RC) zone. One industrial use, a small parcel is zoned Industrial and the remainder of the site is zoned Exclusive Farm Use (EFU).

# 3. Public Facilities

- A. Roads and Streets Arago is accessible by three Coos County roads. Arago Road (rural major collector) from the south provides access to the City of Myrtle Point. Arago-Fishtrap Landing Road (rural local road) from the north provides access to the City of Coquille, the County seat. The Myrtle Point-Lampa Creek Road (rural major collector) provides access from the west. The county roads are owned and maintained by the Coos County Highway Department. All access to the county roads is controlled by the Coos County Highway Department.
- B. Public Water Systems There are no public water systems in Arago that are currently registered with the Oregon State Health Division. Residences and businesses get their water from wells or springs that are in the area.
- C. Public Sewer Systems There are no public sewer systems in Arago. Residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The community boundary for Arago includes all land zoned Rural Center (RC) with the exception of Tax Lot 100 and land zoned Rural Residential-2 (RR-2). Tax Lots 3200 and 3300 now zoned Rural Center (RC) in the Coquille River Estuary Management Plan (CREMP) have also been included.

# ii. Bridge

1. Land Use - Bridge is a community along State Highway No. 42 and the Old Roseburg Highway.

There are several vacant parcels/properties along Highway 42. The residential uses are on larger lots and one- to two-acre sites on both sides of Highway 42. However, the three public and two commercial uses qualify Bridge as a Rural Community.

2. Zoning - A long strip of land, including all of the commercial and public uses is zoned Rural Center (RC). The remainder of the lands adjacent to the Rural Center designation is zoned Rural Residential-2 (RR-2).

### 3. Public Facilities

A. Roads and Streets - Bridge is located on State Highway No. 42 which is the Coos Bay Roseburg Highway. Highway 42 is classified as a principal arterial highway. It is one of the major routes from the Oregon Coast to Interstate 5. Highway

42 is owned and maintained by the Oregon Department of Transportation (ODOT). All access to the highway is controlled by ODOT.

The residents of Bridge are also served by three county roads. Two are rural local roads (Old Big Creek Road and Bridge Road); the third road is Myrtle Creek Road which is classified as a rural major collector. The county roads are owned and maintained by the Coos County Highway Department. All access to the county roads is controlled by the Coos County Highway Department.

- B. Public Water Systems Bridge is served by two small water districts who use surface water (springs) as their source. Bridge Water District serves approximately 90 people having 40 hookups. Anderson Mountain Springs water-rights are owned by 11 different individuals who use the same pipeline. The system serves approximately 20 people through 11 hookups.
- C. Public Sewer Systems Bridge is not served by a public sewer system. All residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The community boundary includes all lands currently zoned Rural Center (RC) and all lands zoned Rural Residential-2 (RR-2) and occupied by a residence with the exception of Tax Lots 301 and 600. There are other lands zoned Rural Residentil-2 (RR-2) adjacent to the proposed boundary but they are vacant.

# iii. Broadbent

- 1. Land Use Broadbent is a very small community on the Myrtle Point-Broadbent Highway No. 242 where the highway alignment comes very close to the South Coquille River. In addition to a few residences, the following uses qualify this small settlement as a Rural Community.
- 2. Zoning The community is zoned Rural Center (RC). There are two areas zoned Rural Residential-2 (RR-2) northeast of the community; however the remainder of the lands around Broadbent are zoned Exclusive Farm Use (EFU).
- 3. Public Facilities
  - A. Roads and Streets Broadbent is located on State Highway 242 which is the Powers Highway. Highway 242 is a connection between State Highway 42 and the town of Powers. Highway 242 is classified as a minor collector and is owned and maintained by the Oregon Department of

Transportation; all access to the highway is controlled by ODOT.

The residents of Broadbent are also served by the Myrtle Point-Broadbent (County major collector road). It is located west of Highway 42 and provides a connection between the City of Myrtle Point and Broadbent. The Myrtle Point-Broadbent Road is owned and maintained by the Coos County Highway Department. All access to the county road is controlled by the Coos County Highway Department.

- B. Public Water Systems Broadbent has three systems registered with the Oregon State Health Division. All three systems use groundwater (wells). The first system is called the "Broadbent Church System" which has 6 hookups and serves a population of 150; the second system is called the "Broadbent Post Office System" which has 4 hookups and serves a population of 100; and the third system is called the "Broadbent School Spring" which has 4 hookups and serves a population of 10. The Church and Post Office systems serve households which live outside of Broadbent.
- C. Public Sewer Systems Broadbent is not served by a public sewer system. All residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The community boundary includes only those lands currently zoned Rural Center (RC). The adjacent RR-2 zoned land is primarily vacant with the exception of Tax Lots 1500, 1600 and 1800, which are not contiguous.

# iv. Dora

- 1. Land Use Dora is a small community on the Coquille River at the intersection of Myrtle Point and Goldbrick Road. In addition to a few residences the following uses qualify this small settlement as a Rural Community.
- 2. Zoning The community is zoned Rural Center (RC) and Rural Residential-2 (RR-2); the commercial and public uses are all within the Rural Center (RC) zone.
- 3. Public Facilities
  - A. Roads and Streets Dora is located on the Old Coos Bay Wagon Road. The Coos Bay Wagon Road runs parallel to Highway 42 and provides an alternate east-west connection between the Coos Bay area and Roseburg to the east. The road is classified a County rural major collector road. The Wagon Road provides transportation for local residents, logging activities and seasonal access for hunters. Goldbrick Road (County rural local road) provides access to the fire hall

- and library; both roads are owned and maintained by the Coos County Highway Department. All access is controlled by the Coos County Highway Department.
- B. Public Water Systems The Dora Store's well is registered with the Oregon Health Division as it serves people who stop at the store. Residences get their water from wells or springs that are located in the area.
- C. Public Sewer Systems There are no public sewer systems in Dora. Residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The community boundary includes all lands currently zoned Rural Center (RC) and Rural Residential-2 (RR-2) lands immediately adjacent and south of the Rural Center (RC) lands. The Rural Residential-2 (RR-2) zoned Tax Lot 1500 is vacant and not included within the boundary.

# v. Glasgow

- 1. Land Use Glasgow is predominately a residential community located just north of Coos Bay and east of the Coos Bay Bridge (Highway 101). In addition to a large residential settlement, the following uses qualify Glasgow as a Rural Community.
- 2. Zoning Approximately one third of the central part of the community is zoned Rural Center (RC). The motel and restaurant are zoned Commercial and the remainder of the community is zoned Rural Residential-2 (RR-2).

### Public Facilities

- A. Roads and Streets Glasgow is located on East Bay Drive (County rural major collector road). East Bay Drive carries traffic from State Highway 101 to the east bay area and down to the City of Coos Bay's area called "Eastside". One of the Oregon Department of Transportation's priorities, is to modernize Highway 101- East Bay Drive intersection just west of Glasgow. The streets serving Glasgow residences are County rural local roads/streets. The County roads are owned and maintained by the Coos County Highway Department. All access is controlled by the Coos County Highway Department.
- B. Public Water Systems Glasgow is served by the Coos Bay-North Bend Water Board facilities. There are no small community or private water systems registered with the Oregon Health Division.

- C. Public Sewer Systems There are no public sewer systems serving the Glasgow area. All residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The community boundary includes all lands zoned Rural Center (RC) and Commercial and the Rural Residential-2 (RR-2) south and east of the Hilltop Restaurant and the occupied Rural Residential-2 (RR-2) lands south to and including Tax Lots 25 13 02D 100, 200, 201 and the southern most tax lot 300.

### v. Greenacres

- 1. Land Use Greenacres is a small community between Coquille and Coos Bay, east of State Highway No. 42 and the Southern Pacific Railroad. The main access to the community is along Greenacres Road. Southwestern Community College operates a heavy equipment school on a former grade school property. The existing residential uses are on small to one acre parcels adjacent to the school and the other public and industrial uses. Greenacres has been designated a Rural Community.
- 2. Zoning All of the commercial, industrial, and public uses are within an area zoned Rural Center (RC). All of the residential areas adjacent to the Rural Center designation are zoned Rural Residential-2 (RR-2).

# 3. Public Facilities

- A. Roads and Streets Greenacres is located on Greenacres Road which connects Greenacres to Highway 42 to the west and dead-ends to the east. Greenacres Roads B, C, D, provides loops around Greenacres to the north, south and provides access to farms and residences. All the roads are County rural local roads. The county roads are owned and maintained by the Coos County Highway Department. All access to the county roads is controlled by the Coos County Highway Department.
- B. Public Water Systems There are no public water systems in Greenacres that are currently registered with the Oregon State Health Division. Residences and businesses get their water from wells or springs that are in the area.
- C. Public Sewer Systems There are no public sewer systems in Greenacres. Residences and businesses use individual onsite septic systems.
- 4. Boundary Determination The community boundary includes all lands currently zoned Rural Center (RC), Rural Residential-2 (RR-2) and tax lot 800 zoned Industrial (IND) east of State Highway 42.

Volume I, Part 2, Section 5.5 Page 16

# vii. Hauser

- 1. Land Use Hauser is linear, primarily a residential community that evolved along Old Highway 101, north of Glasgow and Coos Bay. The community is comprised of residential uses on a range of lot sizes. Hauser has been designated a Rural Community.
- 2. Zoning Approximately three quarters of the land along Old Highway 101 is zoned Rural Center (RC). This designation begins at the southern boundary and regulates properties along both sides of the highway. The northern one quarter and the lands east of the Rural Center designation are zoned Rural Residential-2 (RR-2). The land east of the current Highway 101 paralleling the Rural Center designation is zoned Industrial. Two stores and a tavern at the northern most intersection of Highway 101 and Old Highway 101 are zoned Commercial.

# 3. Public Facilities

A. Roads and Streets - Hauser is located to the north of the City of North Bend along the Pacific Coast Highway 101. The Coast Highway is a State principal arterial highway which connects to the State of Washington to the north, and California to the south. This highway is owned and maintained by the Oregon Department of Transportation; all access is controlled by ODOT.

Wildwood Drive (County rural major collector road) acts as a frontage road to Highway 101 and provides access to a large portion of the Hauser community. Two County rural local roads give access to Wildwood Drive. These roads are owned and maintained by the Coos County Highway Department. All access is controlled by the Coos County Highway Department.

- B. Public Water Systems Hauser is served by the Coos
  Bay/North Bend Water Board. There are three private water
  sources registered by the Oregon Department of Health. The
  Hauser Community Church, Hauser Store, and the Hauser
  Trailer Village all have individual wells registered.
- C. Public Sewer Systems There are no public sewer systems in Hauser. Residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The proposed boundary includes all of the land zoned Rural Center (RC) and the developed portions of the land zoned Rural Residential-2 (RR-2). All of the land between old Highway 101 and new Highway 101, including the lands designated Industrial (IND), are included in the proposed community

boundary. The Myrtlewood Factory west of Highway 101 is also included.

# viii. Millington

- 1. Land Use Millington is primarily a residential area developed at urban densities immediately south of Bunker Hill and the City of Coos Bay. In addition to the residential areas, there are two existing commercial enterprises and a fire station on the westside of Highway 101. There are two wood products facilities on the eastside of Highway 101.
- 2. Zoning Most of the Millington area is zoned Urban Residential-2 (UR-2). There are two areas east of Highway 101 zoned industrial and several small areas zoned Commercial-1 (C-1) on the westside of Highway 101. There is also a large area zoned Exclusive Farm Use (EFU) that is vacant and undeveloped; a large area outside of the existing Urban Area Boundary, and west of the community is zoned Rural Residential-2 (RR-2).

# 3. Public Facilities

- A. Roads and Streets Millington is located along the Pacific Coast Highway 101. The Coast Highway is a State principal arterial highway which connects to the State of Washington to the north and California to the south. The highway has 4 lanes and has limited access in the Millington area. Access to shopping, business, or entertainment in the Coos Bay/North Bend area for Millington residents is via Highway 101. Access to residences and businesses on the westside of Highway 101 is via a state owned frontage road that parallels the highway traveling north and south. County rural local roads provide residences access to the state frontage road. Residences and businesses on the eastside of Highway 101 access the highway via East Millington Road (County rural local road).
- B. Public Water Systems Millington is served by the Coos Bay-North Bend Water Board facilities. There are no small community or private water systems registered with the Oregon Health Division.
- C. Public Sewer Systems There are no public sewer systems serving the Millington area. All residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The proposed boundary for Millington is the same boundary that was established in 1984 when the county established the Urban Community Boundary. While Millington is proposed to be reclassified a Rural Community, the boundary is proposed to remain the same.

Volume I, Part 2, Section 5.5 Page 18

# ix. Riverton

- Land Use Riverton is a small community along State Highway 42S which leads to Bandon, Oregon. There is only one commercial use, a small myrtlewood factory and store. There is also a church and fire station. There is a small construction business and yard which qualifies as an industrial use. There are a few residences in Riverton on small (7,500 square foot to one-half acre) lots. The commercial, industrial and public uses qualify Riverton as a Rural Community.
- 2. Zoning The entire community is zoned Rural Center (RC). All of the area around the community is zoned Exclusive Farm Use (EFU).

# 3. Public Facilities

A. Roads and Streets - Riverton is located on State Highway 42S which is the Coquille-Bandon Highway. Highway 42S is a connection of Highway 42 at Coquille and Highway 101 at Bandon; Highway 42S is classified as a minor collector. The Highway is owned and maintained by the Oregon State Department of Transportation; all access is controlled by ODOT.

Riverton Road (County rural local road) provides access from some residences to State Highway 42S. Riverton Road is owned and maintained by the Coos County Highway Department. All access is controlled by the Coos County Highway Department.

- B. Public Water Systems Riverton is served by four private water systems that use surface water (springs) as their source. Each system has 4 to 7 hookups. E. coli has been found in some of the water systems; some residents use bottled water for cooking and drinking. Traces of coal have been found in the wells dug in the area. The well water is used mostly for irrigation and miscellaneous uses. An updated community water system is a priority need for Riverton residents.
- C. Public Sewer Systems There are no public sewer systems in Riverton. Residences and business use individual on-site septic systems.
- 4. Boundary Determination The community boundary for Riverton includes all lands currently zoned Rural Center (RC) and all lands zoned Industrial (IND) and Commercial under the Coquille River Estuary Management Plan (CREMP).

### x. Sumner

1. Land Use - Sumner is a very small community at the intersection of Myrtle and Front Streets, and south of the southern most point of Catching Slough. There is a store, a small parts manufacturing facility, and a fire station. In addition, there are a few residences which qualify Sumner as a Rural Community.

# 2. Public Facilities

- A. Roads and Streets Sumner is located on the Old Coos Bay Wagon Road. The Coos Bay Wagon Road runs parallel to Highway 42 and provides an alternate east-west connection between the Coos Bay area and Roseburg to the east. The road is classified a County rural major collector road. The Coos Bay Wagon Road provides transportation for local residents, logging activities, and seasonal access for hunters. Selander Road (County rural local road) provides a loop around Sumner and access to Catching Slough to the north. Both roads are owned and maintained by the Coos County Highway Department. All access is controlled by the Coos County Highway Department.
- B. Public Water Systems The residents of Sumner are served by the Sumner Water Co-op, a community water system that has 9 connections and serves a population of 24. The Sumner Water Co-op uses a spring as their water source.
- C. Public Sewer Systems Sumner is not served by a public sewer system. All residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The community boundary for Sumner includes all lands currently zoned Rural Center (RC) and all lands zoned Rural Residential-2 (RR-2).

# xi. Sunnyhill

- 1. Land Use Sunnyhill is predominately a residential community beginning on the eastside of Highway 101 north of Hauser. The community is spread out in a southeasterly direction over a series of rolling hills. The other primary use is a lumber mill at the north end of the community although there are a few smaller commercial, industrial and public uses along North Bay Drive.
- 2. Zoning Sunnyhill is all zoned Rural Residential-2 (RR-2) with the exception of two areas zoned for industrial use. One area is at the northernmost part of the boundary, and the other site is at the southernmost boundary.

# 3. Public Facilities

- A. Roads and Streets Sunnyhill is located on North Bay Drive (County rural major collector road). North Bay Drive intersects State Highway 101 to the north of North Bend and loops around to the northeast to connect to Highway 101 at Hauser. Most of the traffic using North Bay Drive consists of local residents. North Bay Drive is owned and maintained by the Coos County Highway Department who also controls all access to the road.
- B. Public Water Systems Sunny Hill Elementary School District No. 13 has a well registered with the Oregon Health Division which shows 6 hookups serving 160 users. The other residences get their water from individual wells in the area. The Coos Bay-North Bend Water Board has plans for future expansion into the Sunnyhill area.
- C. Public Sewer Systems There are no public sewer systems in the Sunnyhill area. Residences and businesses use individual on-site septic systems.
- 4. Boundary Determination The community boundary for Sunnyhill includes all land zoned Rural Residential-2 (RR-2) with the exception of two vacant tax lots at the southern boundary and an area that is not contiguous to the primary residential area along Highway 101. The boundary also includes two industrial areas: one adjacent to the northern boundary, and one adjacent to the southern boundary as described in the land use section above.

# 5.5.3. Public Facilities (Goal 12 Consistency)

Urban unincorporated communities affected by Goal 12 are Charleston, Barview, and Bunker Hill/Bay Park. The requirement of Goal 12 is to provide a Transportation System Plan (TSP) which shall consider:

- a. all modes of transportation;
- b. an inventory of local, regional and state transportation needs;
- c. consider the differences in social consequences that would result from utilizing differing combinations of transportation modes;
- d. avoid principal reliance on only one mode of transportation;
- e. minimize adverse social, economic and environmental impacts and costs;
- f. conserve energy;
- g. meet the needs of the transportation needs of the disadvantage;

- h. facilitate the flow of goods and services to strengthen the local and regional economy; and
- i. conform with local and regional comprehensive land use plans.

Highway 101 runs through Bunker Hill/Bay Park; this area is identified in the County's TSP as problematic in terms of capacity, safety, and mobility. The TSP presents several solutions for these areas which are prevalently over the capacity and safety of the traffic.

Recommendations for improvements are: to provide a left-turn lane, through lanes, and a refinement plan that considers alternatives which will address safety and capacity issues.

Charleston and Barview are located on Highway 240 (State Highway). Highway 240 is known as Cape Arago Highway which connects the Coos Bay area with Coos County, and Oregon State Parks southwest of Charleston. Highway 240 is owned and maintained by Oregon Department of Transportation, as well as all access off of this highway. Charleston can also be accessed from the east by McLain-Libby Road. This road provides access to Highway 101. Charleston is also accessed from the south by Seven Devils Road (County Road); Highway 240 runs from downtown North Bend along the shore of Coos Bay, through Empire, Barview, Charleston and to the State parks. Within the County this highway is 2 lane, while within the Cities of Coos Bay and North Bend it has 4 to 5 lanes.

A problem identified with McLain-Libby is the sharp curves; a suggestion has been proposed in the TSP to widen and overlay 4 miles of Seven Devils Road.

The TSP addresses the County's street systems and recommends modernization in urban areas. The County road system encompasses a wide range of traffic volumes and road users. Road improvements to urban standards will increase the capacity of a road because it will often increase the base and the roads ability to handle heavy loads. Greater widths will allow for on-street parking and other modes of transportation.

The TSP also addresses "Planning for Road Improvements". This includes multi-jurisdictional cooperation, new construction and road reconstruction. Access management has been added as a policy to the County's ordinance. This process provides (or manages) access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety and capacity.

The TSP through the County's ordinance has provided a section on "Access" in Article 6.2 - Design and Development Standards. Access to a developable parcel must have "one of the following means of access: (1) abut upon a public street (other than an alley); or, (2) abut upon a private easement (can not use resource easements for siting dwelling and other developable uses); or, (3) not affected by a Coastal Shoreland Boundary shall abut on a waterway provided the following facts are found to exist...".

A section titled "Access Management" defines the intent and purpose of this section is to manage access to land development while preserving the flow of traffic in terms of safety, capacity, functional classification, and level of service. Major roadways, including arterials and collectors, serve as the primary network for moving people and goods. These transportation corridors also provide access to business, homes and have served as the focus for commercial and residential development. If access points are not properly designed, these roadways will be unable to accommodate the needs of development and retain their primary transportation

function. This ordinance balances the right of reasonable access to private property with the right of the citizens of the County and the State of Oregon to safe and efficient travel.

The TSP does address alternate modes of transportation (bicycle and pedestrian). The TPR requires that cities and counties, through the development of the TSP, avoid principal reliance on anyone mode of transportation.

Public transportation is discussed in the TSP; findings suggest that a rural public transit is difficult to achieve. Providing public transportation services to areas that contain very few people is generally not economical. At the time of this study, ODOT is funding a study looking at the feasibility of public transportation services in both the rural and urban areas in Coos County. As of October, 1999 a transit service is being tested in the communities of Coos County, and results of this service have not been formulated.

Coos County has worked closely with staff from Oregon Department of Transportation to develop a workable TSP that complies with Goal 12 and the Transportation Planning Rule. At the time of initial review of this project, Coos County is in the final stages of adoption of a TSP in accordance with the Transportation Planning Rule and Goal 12.

# 5.5.4. Zoning Impacts

### 5.5.4.1. Build-out Potential

The build-out potential was examined for each community. All vacant individual lots and parcels larger then 50' by 70' were allocated one residential unit. All parcels exceeding two acres were measured to determine the unit capacity based on the Rural Residential-2 (RR-2) zone. The total number of potential new housing units by community is listed below.

None of these communities are served by a sanitary waste system and all require on-site sewage disposal. Construction of a residence on these lots will be determined by the ability of each lot to accommodate a sanitary waste system consistent with County standards. It is likely that many of the smaller lots will not accommodate the required system.

Several communities have small cooperative or private water systems. The ability of these systems to provide service to additional units will be determined by each system provider as new requests for permits are filed. Riverton does not have potable water and bottled water is currently used for drinking and cooking. No additional residential units should be constructed until a community-wide water system is installed. Sunnyhill's water services are provided by a school district well and individual wells. No additional units should probably be permitted in Sunnyhill until the Coos Bay-North Bend Water Board expands its service into the area which the research indicates, they have plans to do in the future.

#### Rural Service Centers

- 1. Allegany 7 Residential Units (1 parcel @ 4) 3 individual tax lots. There are no water or sanitary waste systems in Allegany.
- 2. Fairview 4 Residential Units on individual lots. There are no water or waste systems in Fairview.

- 3. Laurel Grove 24 Residential Units on individual lots. There are no water or waste systems in Laurel Grove.
- 4. Norway 1 Residential Unit. There are no water or waste systems in Norway. Were all vacant buildable lots and parcels to develop in the four rural service centers, an additional 36 units could be constructed.

### b. Rural Communities

- 1. Arago 1 Residential Unit-Individual septic tanks and wells
- 2. Bridge 16 Residential Units (1 parcel @ 4 and 1 parcel @ 2 units) 10 separate tax lots. Two water districts; one serving 40 homes and the other district serving 11 homes from a commonly owned pipeline. Individual septic tanks and wells.
- 3. Broadbent 2 Residential Units-Three water systems with a total of 16 hookups within the proposed boundary. Individual septic tanks and wells.
- 4. Dora 4 Residential Units on one vacant parcel.—Individual wells and septic tanks.
- 5. Glasgow 22 Residential Units-(1 parcel @ 2) 20 separate tax lots. Glasgow is served by the Coos Bay-North Bend Water Board. Individual septic tanks.
- 6. Greenacres 7 Residential Units-(1 parcel @ 2 and 1 parcel @ 3) 2 separate tax lots. Individual septic tanks and wells.
- 7. Hauser 7 Residential Units-(1 parcel @ 2) 5 separate tax lots. Coos Bay/North Bend Water Board provides water service. Individual septic tanks are used for sanitary waste.
- 8. Millington 33 Residential Units—Coos Bay-North Bend Water Board provides water service to Millington. There is no public sewer system and individual septic tanks are utilized for sanitary waste.
- 9. Riverton 9 Residential Units-Four private water systems provide service to approximately 4 to 7 hookups. E. coli has been found in some of the systems and bottled water is utilized for cooking and drinking. No additional units should be permitted until an updated community water system is in place.
- 10. Sumner 6 Residential Units-The Sumner Water Co-op has 9 hook-ups. The sanitary waste is handled by individual on-site septic tanks.

11. Sunnyhill - 19 Residential Units-(1 parcel @ 2) 17 individual vacant buildable tax lots. The School District has an individual well serving 160 residents. Other residents utilize individual wells. The Coos Bay-North Bend Water Board has plans to expand into the community. The sanitary waste is handled by individual on-site septic tanks. Were all vacant buildable lots and parcels to develop in the 11 rural communities, an additional 126 residential units could be constructed.

5.6 EASTSIDE

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The urban growth boundary that the City of Eastside and Coos County have agreed upon is the city limits of Eastside. Consequently, the County does not include an urban growth boundary report here. Justification for the chosen boundary may be found in the Eastside Comprehensive Land Use Plan.

5.6-1

Volume I Part 2 945 5.7 COQUILLE

POPULATION PROJECTIONS

DETERMINATION OF AVAILABLE SUITABLE LANDS

DISCUSSION OF LAND NEEDS FOR FUTURE INDUSTRIAL AND COMMERCIAL DEVELOPMENT

RECREATION AND OPEN SPACE NEEDS

AGRICULTURAL AND FOREST LANDS WITHIN UGA STUDY AREA

SOIL SUITABILITY FACTORS

PUBLIC FACILITIES: PROPOSED IMPROVEMENTS

PHYSICAL AND CULTURAL BOUNDARIES

SUMMARY

Jane !

CASE # (1)-32-

BOARD OF COMMISSIONERS

MAY 25 1982

COUNTY OF COOS

STATE OF OREGON

MARY ANN WILSON

In the Matter of Adopting Zoning ) ORDINANCE
Designations for the Urban Growth )
Areas for the City of Table Dregon) 82-5-011L

THE BOARD OF COMMISSIONERS for the County of Coos ordains as follows:

#### SECTION 1. TITLE

This ordinance shall be known as "Coos County Ordinance Number 82-5-011L".

#### SECTION 2. AUTHORITY

This ordinance is enacted pursuant to the provisions of ORS 203.035 and ORS Chapter 215.

### SECTION 3. PURPOSE

The purpose of this ordinance is to adopt zoning designations for land within the urban growth area of the City of Coquille, Oregon. This ordinance partially implements the ordinance known as the "Coos County Ordinance Number 82-5-010L, an Element of the Coos County Comprehensive Plan."

#### SECTION 4. FINDINGS

The Board of Commissioners for Coos County finds that:

1. The ordinance known as "Coos County
Ordinance Number 82-5-010L, an Element of
the Coos County Comprehensive Plan" adopts
an urban growth boundary for the City of
Coquille, Oregon. That

MAY 2 5 1982

ORDINANCE - 1

general land use designations for the City of Coquille urban growth area.

- 2. The Urban Growth Boundary Ordinance for the City of Coquille, Oregon contains supporting documentation to demonstrate that the ordinance is consistent with the Statewide Planning Goals. This zoning ordinance, since it is consistent with and implements the Urban Growth Boundary Ordinance for the City of Coquille, is therefore also consistent with the Statewide Land Use Planning Goals.
- 3. The zoning designations legislatively adopted by this ordinance are based upon the zoning system established by the Coos County Interim Zoning Ordinance of 1975. The zones adopted by this ordinance are defined and will be administered according to the terms of the Coos County Interim Zoning Ordinance of 1975.

# SECTION 5. REPEAL OF ALL INCONSISTENT ZONING DESIGNATIONS

All zoning designations adopted as part of the Coos County
Interim Zoning Ordinance of 1975 which are inconsistent with the
zoning designations adopted by this ordinance are hereby
repealed.

#### SECTION 6. ADOPTION OF ZONING DESIGNATIONS

The zoning designations described in "Exhibit A", attached hereto and incorporated herein by reference, are hereby adopted as the zoning designations for the properties shown in "Exhibit A".

ORDINANCE - 2

5,7-1

In the Matter of Adopting an Amended ) O R Urban Growth Boundary for the City of ) Coquille, Oregon

ORDINANCE

82-5-010L

THE BOARD OF COMMISSIONERS for the County of Coos ordains as follows:

### SECTION 1. TITLE

This ordinance shall be known as "Coos County Ordinance Number 82-5-010L, an Element of the Coos County Comprehensive Plan."

#### SECTION 2. AUTHORITY

This ordinance is enacted pursuant to the provisions of ORS 203.035 and ORS Chapter 215.

#### SECTION 3. PURPOSE

The purpose of this ordinance is to adopt an amended urbs growth boundary for the City of Coquille, Oregon. This ordinance also establishes land use designations for the City ci Coquille urban growth area.

#### SECTION 4. FINDINGS

The Board of Commissioners of Coos County finds that:

1. Statewide Planning Goal 14, Urbanization,
requires that urban growth boundaries be established to identify and separate urbanizable
land from rural land. Goal 14 further provides
that establishment and change Friends Life

ORDINANCE - 1

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COORDINATOR

Volume I Part 2

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boundaries sl	hall	be	based	upon	consideration	of
the following	r fac	cto:	rs:			

- Demonstrated need to accommodate longrange urban population growth requirements consistent with LCDC goals;
- (2) Need for housing, employment opportunities, and livability;
- (3) Orderly and economic provision for public facilities and services;
- (4) Maximum efficiency of land uses within and on the fringe of the existing urban area;
- (5) Environmental, energy, economic and social consequences;
- (6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
- (7) Compatibility of the proposed urban uses with nearby agricultural activities.
- 2. On May 16, 1980 the Coos County Board of
  Commissioners adopted an ordinance known as "The Urban
  Growth Boundary Ordinance for the City of Coquille,
  Oregon, an Element of the Coos County Comprehensive
  Plan". The purpose of that ordinance was to adopt
  an urban growth boundary for the City of Coquille and
  to establish land use designations for the City of
  Coquille's urban growth area. The boundary and land
  use designations were also adopted by the City of

ORDINANCE - 2

Coquille as is required by Statewide Planning Goal
14, Urbanization, and Land Conservation and
Development Commission policy. The boundary and
land use designations were subsequently submitted
to LCDC for acknowledgement pursuant to ORS 197.251
along with the remainder of Coquille's comprehensive
plan and its implementing ordinances.

- 3. The Land Conservation and Development Commission reviewed Coquille's proposed comprehensive plan in September, 1980, and found that the urbanization element of this proposed comprehensive plan required more justification in order to satisfy Statewide Planning Goal 14.
- 4. Based upon LCDC's review and a revised analysis of the factors listed in Goal 14 and the Coquille comprehensive plan, the Board finds that the urban growth boundary for the City of Coquille described in "Exhibit A", attached hereto and incorporated herein by reference, is justified and appropriate pursuant to Statewide Planning Goal 14.
- 5. "Exhibit A" also describes land use designations for the City of Coquille urban growth area which are appropriate and in conformance with Statewide Planning Goal 14 and the Coquille comprehensive plan.
- 6. The rationale and justification for establishment of this urban growth boundary and the land use designations within this urban growth boundary are

ORDINANCE - 3

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set forth in "Exhibit B", attached hereto and incorporated herein by reference, and in the Coquille comprehensive plan.

### SECTION 5. REPEAL OF PRIOR ORDINANCE

The ordinance known as "The Urban Growth Boundary ordinance for the City of Coquille, Oregon, an Element of the Coos County Comprehensive Plan" adopted by the Board of County Commissioners on May 16, 1980, is hereby repealed.

# SECTION 6. ADOPTION OF URBAN GROWTH BOUNDARY

The boundary described in the attached "Exhibit A" is hereby adopted as the urban growth boundary for the City of Coquille, Oregon.

### SECTION 7. ADOPTION OF LAND USE DESIGNATIONS

The land use designations indicated on the attached "Exhibit A" are hereby adopted as the land use designations for the City of Coquille urban growth area.

ADOPTED THIS 24th day of _________, 1982

BOARD OF COMMISSIONERS

[70C]

Chair

Recording Secretary

Approved as to form:

Office of Legal Counsel

ORDINANCE - 4

ATTEST:



# CITY OF COQUILLE URBANIZATION

#### Population Projections for the City

A rational population projection is the initial basis for determining future land needs for the City of Coquille. The City and County have agreed to Projection II, page 16, which indicates a growth from 4,710 in 1978 to 6,018 people in 2000. Overall, the projection represents an average annual growth rate of 1.12%. The projection itself varies as to the increase in population over certain periods of time. The largest increase in population is the period between 1978 and 1988. Due to present economic conditions and local population estimates, the 1980 population projection is considered too high. The overall 1.12% growth rate is accepted, but a lower initial growth rate seems more appropriate. The following is the revised projection for the five year intervals:

1980	•	4.816
1985		5,092
1990		5,384
1995		5,692
2000		6.018

This projection does not change the year 2000 projected population and represents an average annual growth rate of 1.12%.

### Existing Uses

The next step necessary in determining housing, commercial and industrial needs is to establish uses by type and acreage. The following table gives a breakdown of the existing land use in the City of Coquille as of December, 1980.

Zone District Characteristics

RESIDENTIAL (R)	f of Dwelling Units	Developed Acreage	Net Density d.u./a.c.	Vacant <u>Acres</u>
Single Family	1,229	281.4	4.4	571.2
Multi-Family	246	15.3	16.1	(1)
Mobile Home	4	2.2	1.8	(1)
. Commercial		.3		
· Public Facilities		58.9		
Quasi-Public (church, lodges,	etc)	10.5		
Parks, etc.		. 5.6		
Sub-Total	1,479	374.2	4.0	571.2

MOSILE HOME/RECREATIONAL VEHICLE (MH/RV)	f of Dwelling Units	Developed Acreage	Net Density d.u./a.c.	Vacant Acres
Single Family Mobile Home	3	.2		
1. on lots	2 .	.2		34.2
2. in parks	49	16.9(2)	2.9	(3)
Sub-Total	54	17.3	2.9	34.2
COMMERCIAL (C/1, C/2)	·			
Commercial		77.5	<i>,</i>	34.9
Residential l. single family	. 98	23.5		
2. multi-family	110	(4)	8.8	
Public		22.6		
Quasi-Public		5.1		
Parks, etc.		11.4		
Sub-Total	208	141.1	8.9	34,9
OPEN SPACE (0/1)		204.5		
INDUSTRIAL	-			
Industrial	3	7.7		7.9
Commercial		1.0		7.3
Sub-Total	3	8.7		7.9
RIGHT-OF-WAY		212.4		
TOTAL	1,744	752.7	2.3	648.2

- (1) Included in above acreage figure
- (2) Includes one single family dwelling
- (3)(4) Included in above acreage figure

#### Housing Needs

An assessment of housing needs can be developed from the previous table.

From the previous table the number of dwelling units has been shown to be 1,740. By using the 1980 population figure, the average number of persons per dwelling can be calculated. By comparing this figure with the trend over the last ten years a trend to smaller household size can be shown.

	# of Dwelling		Persons/
	Units	Population	Dwelling Units
1970	1,565	4,437	2.83
1975	1,536	4 4 50	2.77
1980	1,740	4,816	2.75

The trend to smaller household sizes is expected to continue into the middle of the 1980's, with a relatively stable household size by 1990 as projected by the State Housing Division. The household size can be used to make the following housing needs projection.

	Population	Persons/ Dwelling Units	Dwelling Units	Difference
1980	4,816	2.76	1,715*	-
1985	5,092	2.65	1,921	206
1990	5.384	2.59	2,078	157
1995	5,692	2.55	2,232	154
2000	6,108	2.55	2,360	128
	•		-	645

^{*}Does not include vacant units.

These calculations show a need for 645 dwelling units by the year 2000.

In addition to the projected housing needs, some provision must be made to maintain the vacancy rate in Coquille at an acceptable level. An acceptable number of vacant homes are desirable at any time in order to maintain a reasonable balance between the forces of supply and demand. The calculations are based on the following assumptions:

- It is assumed that if Coquille's vacancy rates in 1970 were 10% lower than those for the County as a whole, that they differed by the same amount in 1980.
- Separate vacancy rates are used for owner occupied and rented homes. It is assumed that Coquille had the same proportion of each in its housing stock in 1980, as existed in 1970 (61.8% owner occupied, 38.2 rented).
- 3. Acceptable vacancy rates are at least: 1.6% for homes for owner occupation and 5.0% for homes for rent. (State Housing Division) It is assumed that vacancy rates can be raised to these levels by 1985 with increased home construction. The calculations are as follows:

#### Vacancy Rates

(A) Calculation of assumed vacancy rates for 1978 (% of Total Housing Stock).

	1970				1978				
Γ	COUNTYWIDE*		COQUILLE		COUNTYWIDE		COQUILLE		·
	Owner Occupied	Rented	Owner Occupied	Rented	Owner Occupied	Rented	Owner Occupied	Rented	
T	1.13%	7.64%	0.9%	9.2%	1.6%	1.9%	1.27%	2.29%	_

Source: *U.S. Census, + State Housing Division.

Example: Coquille assumed vacancy rates for owner-occupied dwellings, 1978.

$$\frac{1.6}{1.13}$$
 X 0.9 = 1.275

5,1-5

-	<u>Dwellin</u>	g Units	Vacancy Rate	# of Va- cant Units	Additional Units Over Previous Figure	Combined Total
1980	Total 0/000 Rented	1,714 1,062 653	1.27% 2.29%	' 14 15	<del>-</del>	1,744 1,076 668
1 985	Total 0/0CC Rented	1,921 1,187 734	- 1.5% 5.0%	19 37	5 22	1,977 1,206 771
1990	Total O/OCC Rented	2,078 1,284 794	1.6% 5.0%	21 40	2 3	2,139 1,305 834
1995	Total .0/000 Rented	2,232 1,379 853	1.6% 5.0%	22 43	1 3	2,297 1,401 896
2000	Total 0/0CC Rented	2,360 1,458 902	1.6% 5.0%	23 45	1 2	2,428 1,481 947
TOTAL	O/OCC Rented			, `	. 30	

By adding the projected housing need of 645 to the 39 additional units needed to maintain an acceptable vacancy rate, the projected housing needs by the year 2000 will be 684 dwellings.

#### Housing Projection By Type

The previous calculations have demonstrated a need for 684 dwellings, with no breakdown by type. In the housing section, it was noted that many of the dwelling units in the city are in a range for low to moderate income levels. Two forms of housing that can meet the future low to moderate income family needs are attached dwellings and mobile homes. Over the past five years the following building permits were issued.

	Single Family	Multi-Family
1976	10	4 .
1977	10	0
1978	23	10
1979	21	44
1980	15	22
	70	QA.

The table shows an almost even split between multi-family and single family dwellings. The last two years show a much higher percentage of multi-family dwellings to single family. The primary reason for this large increase was the result of the city accepting government subsidized dwellings from Farmers Home Administration, during the period between 1978-1980.

<u>Total</u>		Single Family		Multi-Family		Mobile Homes	
•		Ÿ	%	£	Z	ź	2
1976	1,494	1,228	32.6	263	17.6	3	.2
1980	1,744	1,332	76.4	355	20.4	57	3.2

As noted on page 97, the City of Coquille has 30.5% of the population with incomes of 80% or less of the median incomes for the City. It has to be assumed that a portion of the people with low to moderate income levels are living in single family housing, since only 23.6% of the housing stock is made up of multi-family and mobile homes.

The following projection of housing needs is made based on the following assumptions:

- Single family dwellings will continue to decrease in proportion to the rest of the housing stock, due to increasing cost and high interest rates. But it will still be the predominate form of housing.
- 2. A majority of the single family housing is over 30 years old, yet well maintained. This housing will be available at lower cost than newer stick-built homes. These houses will account for a portion of the low to moderate income level family's need for housing, either through resale or rental.
- Attached forms of housing will continue to increase in percentage as a part of the overall housing stock due primarily to the economic benefits of common wall construction, higher densities and government subsidized housing.
- Mobile homes will continue to be an acceptable alternative for low and moderate income families. That vacant MH/RY land will be developed.
- 5. That the housing stock will change to the following percentages by the year 2000, to meet the above mentioned assumptions and meet the low to moderate income household needs:

Single Family	67%
Multi-Family	27%
Mobile Homes	53

6. It is also assumed that the assumed increase in multi-family and mobile home housing types, along with the older, wellmaintained single family dwellings, will meet the projected needs of the 30.5% low to moderate income families.

Dwelling Type		Percent	Additional Units Needed By Type
1980 TOTAL	1,744		
SF	1,332	76.4	**
MF	355	- 20.4	· ••
МН	57	3.2	
2000 TOTAL	2,428	•	
SF	1,627	67	295
MF	655	27	300
MH	146	6	83

Thus, the total additional dwelling units needed by type in the year 2000 is:

Single Family	295
Multi-Family	300
Mobile Home	- 89
	684

#### Buildable Lands

In the previous documentation, the City has identified a total of 646.0 vacant acres of land. If the total acreage were considered capable of maximum development, then the City could be considered to have an adequate amount of land available for future development. To make that type of judgment would be incorrect in the case of Coquille. To determine the carrying capacity or development potential, a determination of what affect various physical constraints will have on development, needs to be analyzed.

To determine the carrying capacity of the vacant lands within the City, the following classifications of buildable lands will be used:

<u>Suitable</u>: Land that is physically capable of accommodating development at a maximum utilization level, with public services readily available.

Less Suitable: Land having some physical constraints and/ or limitations on availability of public services. While this land is capable of being developed, the constraints will result in higher development costs.

<u>Least Suitable</u>: Lands having some .severe development constraints related to the physical carrying capacity, which will result in higher development costs than other lands.

These definitions recognize that any parcel of land has some development potential if the appropriate development safeguards are taken and the resulting capital expenditures are made.

#### Vacant Residential Lands

In previous discussions it was noted that there are 571.2 acres of vacant, residentially zoned land within the City Limits. The majority of these lands are located in the hilly terrain in the eastern and northwestern portions of town. For the sake of discussion, the large tracts have been divided into three areas. The following is a description of each area (see Vacant Lands map):

Area 1: This area contains 126.4 acres of land, located south of Shelly Road on the east side of town. Within this area is a subdivision originally approved for 30 lots on 13.2 acres of land. The rest of the area consists of two large parcels of 30 acres and 77 acres and four smaller parcels. Nearly half (50.2 acres) of this area has slopes in excess of 30%, with

another 30.1 acres having slopes between 18% and 30%. Given the excessive slopes and the associated soils limitations, the area has some fairly severe physical development constraints. The two largest vacant parcels are physically separated from Shelly Road by slopes in excess of 30%. This physical separation creates a substantial barrier to the creation of roads, and extension of utilities. It is possible to extend water into this area, but the extension of sewer lines will be extremely difficult and costly. Given all of the constraints, this area is generally considered least suitable for development, thus creating an area most likely to become a moderate to high cost housing area with public water and individual septic tanks.

Area 2: As an area, this is the largest section of vacant land within the city, containing 281.1 acres of land. This area is located north of Shelly Road, in the east side of town. This area contains some small parcels of less than one acre in the area closest to the existing town and a large parcel in excess of 100 acres in the farthest east portion. This area, like the previous area, has extremely rugged terrain. Approximately 4/5 of the area has slopes in excess of 18% (245.8 acres), with 154.2 acres of that being in excess of 30% slope. Access to this area is difficult for both new roads and utilities. The most suitable terrain is located on the far east side of this area, with the extremely rough terrain separating the potentially suitable land from the rest of the town. The primary road access is provided by Shelly Road and Crest Acres Road. Additional road access is necessary to this area. A proposed extension of the Crest Acres Road would allow for a needed alternative road access. Fater and sewer extensions will be costly and difficult to provide, given the physical constraints and the location of the most suitable land. If development were to continue along Shelly Road, the portion in the eastern section of this area could accommodate some reasonably high levels of development. Presently though, this area will generally be considered least suitable based or the cost of improvements and physical limitations. Most likely, the housing types in this area will be in the moderate to high income levels.

Area 3: This area of 89.2 acres is very similar to areas 1 and 2 in that the terrain is very rugged. This area is under one commership, located in the far northwest corner of town. The majority of the area has slopes in excess of 18%, with many areas in excess of 30%. A water tank is located at the 160 foot elevation, which is below the elevation of the majority of the land in this area. Sewer will be expensive to provide given the present location of sewer lines in therarea and the rough terrain. A large majority of this land is considered least suitable and expected to develop at a low density, creating moderate/high-to-high cost housing.

5.7-7

The remaining 74.5 acres of vacant residential land is located in various areas throughout the existing developed portions of town. A portion of these lands are located in areas with steep slopes or within natural drainage areas. Given the fact that water and sewer is reasonably available. These lands will generally fall within the suitable and less suitable classifications.

Based on the previous general discussions and the buildable land suitability map, the following projections have been made. These projections are based on the assumption that there will be pockets of development in the large rugged areas, which will result in rural types of overall density.

In addition, it is assumed that the residential density on suitable lands will remain relatively constant.

#### Residential Buildable Lands Assessment

	Vacant Land	Acres X D.U./Acre	Dwelling Units
Area 1	126.4 acres		
Suitable Less Suitable Least Suitable		· 13.2 x 3*d.u./ac. 0 113.2 x 1d.u./5ac.	39 0 23 62
Area 2	281.1 acres		
Suitable Less Suitable Least Suitable	89.2 acres	0 35.3 x ld.u./ac. 245.8 x ld.u./5ac.	0 35 <u>49</u> 84
Area 3 Suitable	og.2 acres	12.1 x 4d.u./ac.	48
Less Suitable Least Suitable		0 77.1 x ld.u./5ac.	· 0 15 63
Remaining Vacant Land	74.5 acres		
Suitable Less Suitable Least Suitable	·	34.1 x 4d.u./ac. 25.1 x 1d.u./ac. 15.3 x 1d.u./5ac.	136 25 3 164
TOTAL	571.2 acres		<u>373</u>

^{*}Based upon approved density for the subdivision in the area.

These projections show that the existing vacant residentially zoned lands will be able to accommodate 373 new residential dwellings.

#### Vacant Mobile Home Lands

In the previous housing projections, it has been determined that there will need to be 89 additional mobile homes added to the area's housing stock. It has been documented that there are 34.2 acres of vacant mobile home/ recreational vehicle zoned lands within the City. Based upon the suitability classifications and the assumption that mobile homes will be developed at density higher than standard construction homes and the proximity to utilities, the following projection is made:

Suitable	19.1 acres	x	5 d.u./ac.	=	95 d.u.	•
Less Suitable	7.6 acres	x	2 d.u./ac.	×	15 ժ.ա.	
Least Suitable	<u>7.5</u> acres	X	1 d.u./ac.	=	7 d.u.	
TOTAL	34.2 acres				117 d.u.	

Based on these calculations, there should be more than enough vacant land available to accommodate mobile home needs at this time.

#### Total Residential Land Needs

The two previous discussions resulted in the determination that the mobile home needs of the City can be accommodated in the existing vacant lands. Other forms of housing showed a deficit in the need. The previous projection showed a need for an additional 295 single family and 300 multi-family dwellings. The suitable lands calculation was based upon the assumption that single family and multi-family housing are uses allowed outright in the residential zone district. Based upon the projection of an additional 595 dwellings needed and lands available to accommodate 373 dwellings, the City of Coquille shows a need for land to accommodate an additional 222 dwelling units.

#### Commercial Land Needs

Commercial land needs can be made in a number of ways. The method chosen is based upon the existing developed commercial land being expressed as a ratio to the existing population. The basic assumption being that the existing commercial lands are adequate to meet the needs of the residents of the City of Coquille and that ratio will meet the needs of the future population. The following process is used to determine the commercial land needs by the year 2000:

•	20163
Total Commercially Zoned Land	176.0
Less Residentially Developed Commercial Land	23.5
Sub-Total Commercially Zoned Land	152.5
Less Vacant Commercial Land	34.9
Total Developed Commercial Land	117.6

117.6 Commercial = 4,816 persons = 0.0244 commercial acres/person

So assuming the population in the City reaches 6,018 persons by the year 2000. the following projection would result:

6,018 persons X 0.0244 acres/person -	146.8 acres
Year 2000 commercial acreage Less year 1980 commercial acreage	145.8 Lones 117.6 acres
Commercial Acreage Reeded	29.2 acres

Volume I Part 2

#### Vacant Commercial Lands

Presently there are 34.9 acres of vacant commercial land in the City. Two of the larger parcels of land are located in the floodplain, areas 1 and 2 on map

<u>Area 1</u>: This parcel is in a single ownership consisting of 9.7 acres of land. Presently it is an open field, subject to seasonal high ground water. It is located adjacent to the intersection highway 42 and the Fairview Road. Because of its location, the City feels that owners of the property could go the expense of filling and properly draining this area to justify development of the area.

Area 2: This area is a brush area just north of the City shops consisting of 8.9 acres. There is very little access to this property, along with very little visibility from public rights-of-ways. Because of its physical limitations and low visibility, the City doubts that the owners of this property will want to go to the expense of developing this property. Thus, it is classified as a least suitable commercial site, with virtually no development potential.

#### Vacant Buildable Commercial Lands

Based on the previous discussions, the following numerical justification can be made:

Total Commercially Zoned Land	176.0 acres
Total Developed Commercial Land	141.1 acres
Totle Vacant Commercial Land	34.9 acres
Least Suitable Commercial Land	8.9 acres
Total Buildable Commercial Land	26.0 acres

As established previously, the City needs 29.2 acres of vacant buildable land to meet the year 2000 needs. As a result the City needs 3.2 acres of vacant commercial land by the year  $\frac{2000}{2000}$ .

#### Industrial Land Needs

The City of Coquille has very little vacant industrial land within the existing City Limits. Presently 7.7 acres of Georgia-Pacific mill site is within the City Limits. As discussed previously, Georgia-Pacific and Roseburg Lumber are the major industrial activities in the Coquille area. Being wood products oriented industry leaves Coquille dependent upon an active housing market. Given the fact that a large proportion of the industry in the County is wood products oriented, there is a need both locally and regionally to diversify the economic base. Given the basic premise of need to diversify, the City in previous discussions has determined a need for small cottage type of industries that utilize area resources and the potential for food processing facilities.

#### Vacant Industrial Land

Within the City Limits there are presently 7.9 vacant acres of industrially zoned land. This land is located north of Highway 42 in the western portion of town. This land is intended to meet the identified need for small cottage type of industry that is not in need of rail access. The parcels are presently relatively small, limiting the size of potential industry. Having a larger food processing plant or wood products oriented industry locate there is not very likely. Basedon this discussion, the City is in need of some vacant industrial land that has both rail and highway access.

#### Urban Growth Boundary

In the previous discussions regarding projected needs and buildable vacant lands, it was demonstrated that the City has a need for additional residential, commercial and industrial land. To accommodate this need, additional vacant buildable land will have to be annexed into the City within the 20-year planning period. To do this the City must use the seven factors in Goal 14 (Urbanization) as the basis for determining the location and size of the Urban Growth Boundary (UGB).

#### Residential Land Needs

As a result of the residential buildable lands analysis, it was determined that the City needed enough additional vacant land to accommodate 222 dwelling units. The City is restricted somewhat in the direction in which residential growth can and should occur. The rpesent trend is to the east, in an area called Shelly Road/Crest Acres. Presently, the City is providing water service to the Shelly Road/Crest Acres Water District. Due to limitations in the Water District's storage tank and the City's ability to treat the water, service limitations exist. To include the entire district in the UGB would be the ideal situation from a water services point of view. Unfortunately, this cannot be justified at this time. In order to allow for the filing in of the area between the majority of the Water District's developed area and the City's existing residential development, the area identified on the Urban Growth Area maps has been included. Based upon the seven Goal 14 criteria, the following justification has been made:

 In order that the projected need for vacant residential land can be met, the proposed parcels of land are included in the UGB. This land contains 339.6 acres of land, which, based on the land suitability criteria presented earlier, the following development capacity has been established:

	Acres	D.U./Acre	Dwelling Units
Suitable	27.8	· 4d.u./ac.	111
Less Suitable	79.4	ld.u./ac.	79
Least Suitable	232.4	ld.u./ac.	45
	339.6		236

This projection indicates that the parcels should accommodate the needed housing.

- The needed housing can be provided through the development of these lands. Even though the terrain is rough, there are adequate areas of suitable land to accommodate the growth, which are consistent with the overall physical characteristics of the area.
- 3. Presently, water and sewer lines are in place along Shelly Road to the subdivision noted in Area 1 (Vacant Lands map). The full utilization of these utilities can be accomplished by filling in of the suitable lands in the vicinity. By further extending water service into these areas, the City will be better able to loop the system to allow for better water pressure. By having development occur here, the City is in a better position to work with the Shelly Road/Crest Acres Water District to provide an economical way of providing a surer water supply to the people in the District presently. Development in the area will also allow for the orderly extension of roads to the area. Presently, it is a single access area. The City has proposed providing additional access from Fairview Road.
- 4. By in filling these areas, the City will realize the maximum efficiency possible for the systems already in place. This will eliminate the present situation of leap-frog type of development.
- 5. A. Environmental consequences will be minimized through the review of development and the implementation of the Hazards Overlay Zone. The review will pay attention to the retention of natural vegetation for slope stabilization purposes.
  - B. Energy consequences will be positive in the fact that road access will be improved through the maximum utilization of the lands in the area.
  - C. Economic consequences will be positive in that the efficient utilization of the land will create more efficient and economical public services into the area.
  - D. Social consequences will also be positive in that the development in the area will be in character with the existing development and previous positive consequences. It is also felt that maximum utilization of these lands will create a better opportunity for the provision of low and moderate income housing.
- 6. Agricultural soils in the area are in relatively small parcels, being a Class III type of soil. These lands have been used to a limited extent for pasture and grazing purposes in the past. Development in these areas will not have any effect on the agricultural industry in the area given the fact that the parcels are relatively small and isolated.
- 7. The type of development that will occur in the area will not have an adverse effect on the nearby agricultural activities given the fact that similar development is already in the area and not creating any problems.

### Committed Areas for Inclusion in the UGB

The preceding discussion was presented to justify the inclusion of 339.6 acres of vacant land within the City in the next 20 years. One additional area will be included within the UGB for residential purposes. This area is considered totally committed to urban density development and is presently served by City water. The following is a breakdown of the characteristics of the area:

	# D.U.	Daveloped Acreage	Vacant <u>Acreage</u>
Single Family	42	21.3	0.6
Multi-Family	0		
Commercial	<del></del>	.4	
R.O.W.		2.4	
TOTALS	42	24.1	0.6

This area is located on the west side of the Cunningham Creek drainage and adjacent to the City Limits. The potential for development in fill is very limited and is not identified as a major factor in development needs.

#### Commercial Land Needs

The City has identified an area on the west side along Highway 42 for future commercial development (see map). The commercial land needs section identified a need for 3.2 additional acres of vacant land for commercial purposes. The area described contains 16.8 acres total, of which 11.0 acres are held in single ownership and the rest in four smaller parcels. The land is partially committed to commercial development and a small mobile home park. Given the amount of land in the area, the City feels this is a logical location for commercial development. It is complimentary to the industrial use surrounding the area.

#### Industrial Land Needs

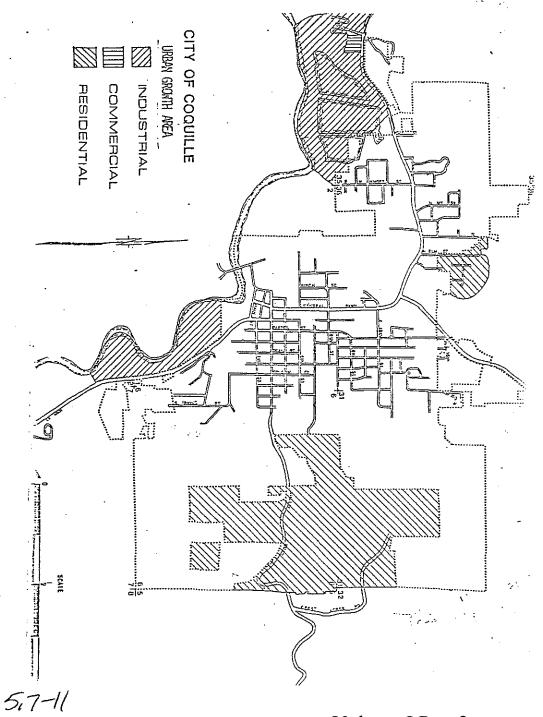
The industrial land needs section identified a need for a large parcel of vacant industrial land with both highway and rail access. There are two larger industrial sites included within the UGB that are presently committed. They are the Roseburg Lumber mill site (135.8 acres) and the Georgia-Pacific mill site and log storage area (35.6 acres). These areas are included within the UGB as committed areas.

The area between the railroad and highway has 11 parcels of land varying in size from .3 acres to over two acres. There presently are some uses that could be converted to industrial uses. The total area contains 12.9 acres of land. Because of the industrial siting criteria, the City has included these lands within the UGB as potential industrial lands.

5.7-10

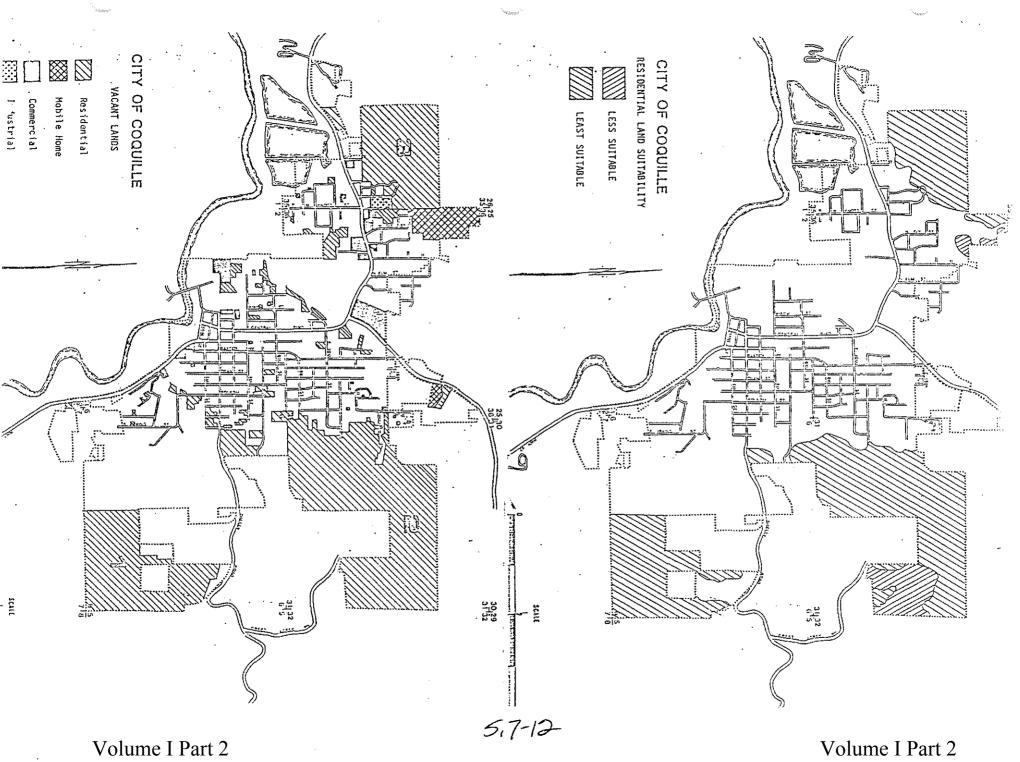
### Area of Mutual Interest

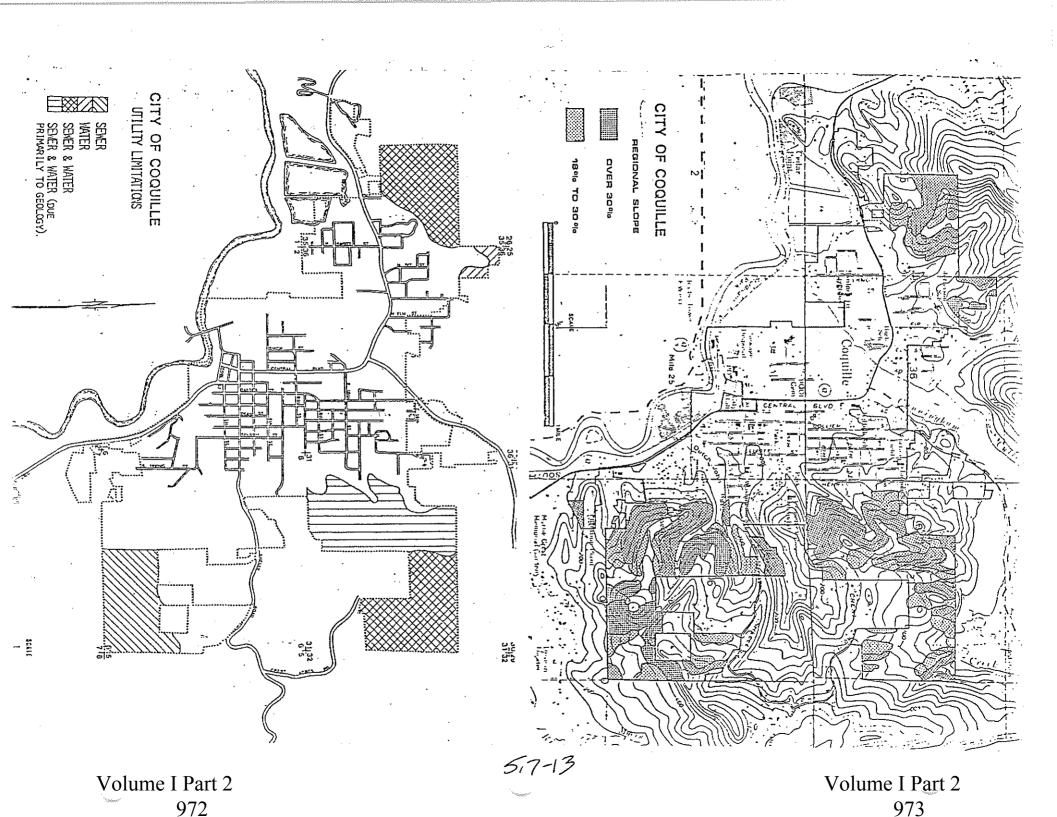
The proposed Area of Mutual Interest includes the Shelly Road/Crest Acres Water District. The Urban Growth Area Management Agreement states that these areas are not to be considered available for urbanization within the planning period or until such a time that vacant land within City Limits and the UGA is substantially developed. County zoning will simply recognize the character of existing land use; areas committed to residential use, like those on Shelly Road/Crest Acres will be designated for Rural Residential use in the Comprehensive Plan, with an appropriate minimum lot size for all future divisions. Undeveloped land will be maintained in resource use or designated for rural residential use strictly on the basis of need. This will tend to restrict residential growth in this area, while at the same time areas within the UGA are made available for growth by service extensions.

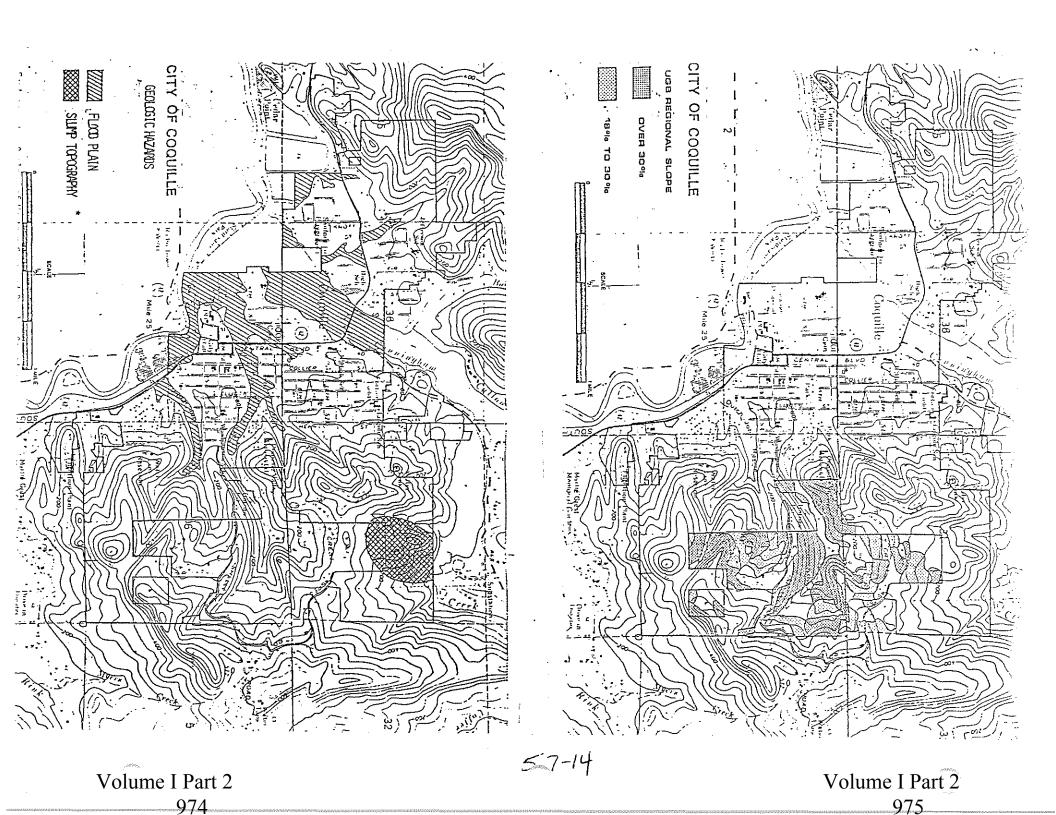


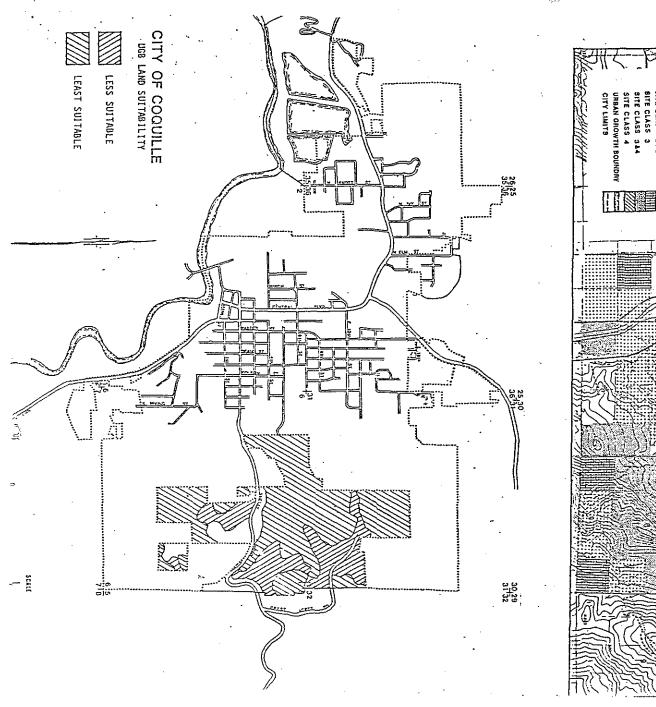
Volume I Part 2

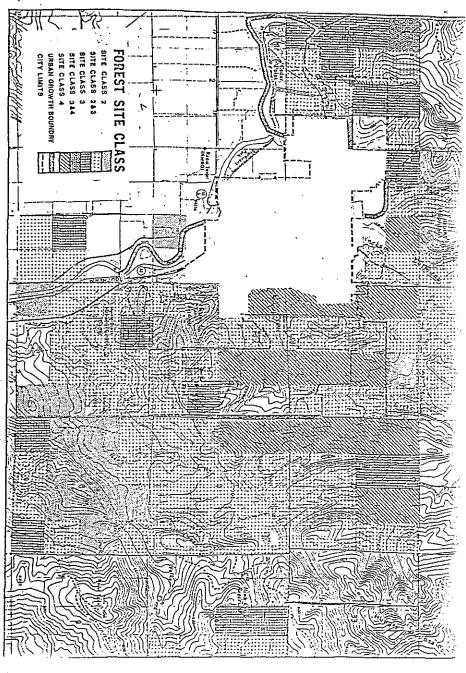
Volume I Part 2 969







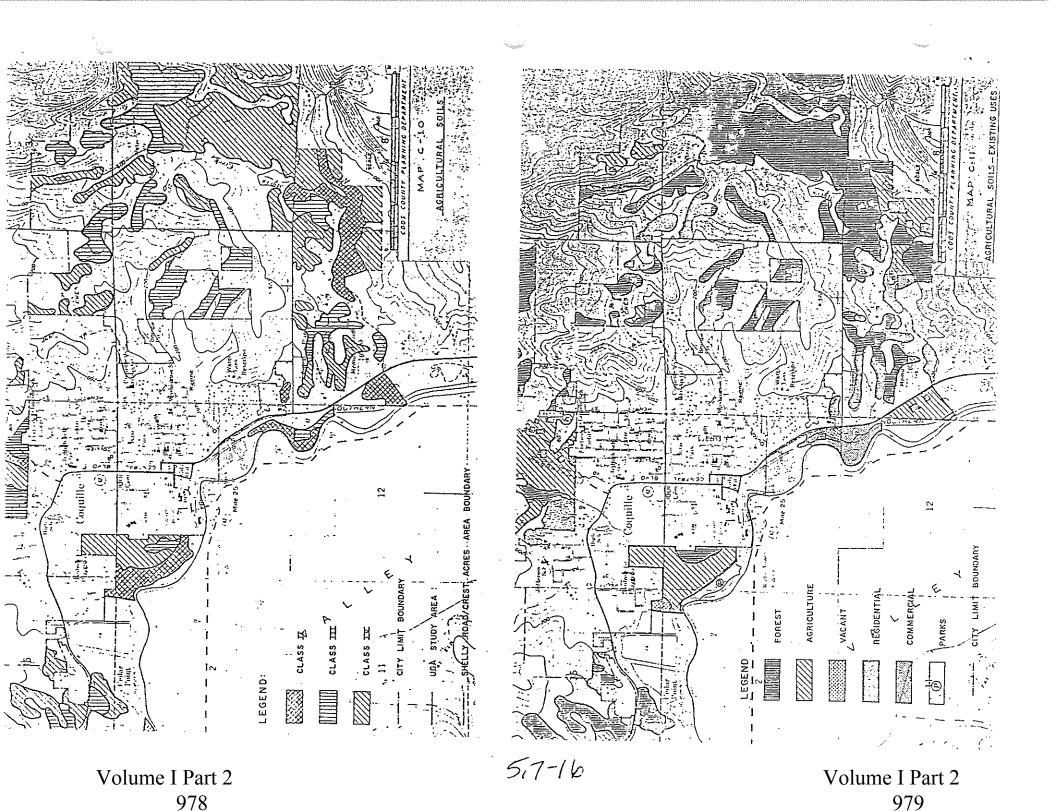




Volume I Part 2 976

5.7-15

Volume I Part 2



5.8 POWERS

URBAN GROWTH AREA
LAND USE DESIGNATIONS

general land use designations for the City of .
Powers urban growth area.

- 2. The Urban Growth Boundary Ordinance for the City of Powers, Oregon contains supporting documentation to demonstrate that the ordinance is consistent with the Statewide Planning Goals. This zoning ordinance, since it is consistent with and implements the Urban Growth Boundary Ordinance for the City of Powers, is therefore also consistent with the Statewide Land Use Planning Goals.
- 3. The zoning designations legislatively adopted by this ordinance are based upon the zoning system established by the Coos County Interim Zoning Ordinance of 1975. The zones adopted by this ordinance are defined and will be administered according to the terms of the Coos County Interim Zoning Ordinance of 1975.

## SECTION 5. REPEAL OF ALL INCONSISTENT ZONING DESIGNATIONS

All zoning designations adopted as part of the Coos County Interim Zoning Ordinance of 1975 which are inconsistent with the zoning designations adopted by this ordinance are hereby repealed.

#### SECTION 6. ADOPTION OF ZONING DESIGNATIONS

The zoning designations described in "Exhibit A", attached hereto and incorporated herein by reference, are hereby adopted as the zoning designations for the properties shown in "Exhibit A".

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ORDINANCE - 1

BOARD OF COMMISSIONERSLE# COUNTY OF COOS

STATE OF OREGON

In the Matter of Adopting an Amended Urban Growth Boundary for the City of Powers, Oregon

OR 82-1-001L

THE BOARD OF COMMISSIONERS for the County of Coos ordains as follows:

## SECTION 1.

This ordinance shall be known as "Coos County Ordinance Number OR 82-1-001L, an Element of the Coos County Comprehensive Plan."

#### SECTION 2. AUTHORITY

This ordinance is enacted pursuant to the provisions of ORS 203.035 and ORS Chapter 215.

## SECTION 3.

The purpose of this ordinance is to adopt an amended urban growth boundary for the City of Powers, Oregon. This ordinance also establishes land use designations for the City of Powers urban growth area.

#### SECTION 4. FINDINGS

The Board of Commissioners of Coos County finds that: 1. Statewide Planning Goal 14, Urbanization, requires that urban growth boundaries be established to identify and separate urbanizable land from rural land. Goal 14 further provides

that establishment and change of urban growth

ORDINANCE - 1

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Volume I Part 2

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boundaries shall be based upon consideration of .
the following factors:

- Demonstrated need to accommodate longrange urban population growth requirements consistent with LCDC goals;
- (2) Need for housing, employment opportunities, and livability;
- (3) Orderly and economic provision for public facilities and services;
- (4) Maximum efficiency of land ures within and on the fringe of the existing urban area;
- (5) Environmental, energy, economic and social consequences;
- (6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
- (7) Compatibility of the proposed urban uses with nearby agricultural activities.
- 2. On May 16, 1980 the Coos County Board of
  Commissioners adopted an ordinance known as "The Urban
  Growth Boundary Ordinance for the City of Powers,
  Oregon, an Element of the Coos County Comprehensive
  Plan". The purpose of that ordinance was to adopt
  an urban growth boundary for the City of Powers and
  to establish land use designations for the City of
  Powers' urban growth area. The boundary and land
  use designations were also adopted by the City of

ORDINANCE - 2

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Powers as is required by Statewide Planning Goal
14, Urbanization, and Land Conservation and
Development Commission policy. The boundary and
land use designations were subsequently submitted
to LCDC for acknowledgement pursuant to ORS 197.251
along with the remainder of Powers' comprehensive
plan and its implementing ordinances.

- 3. The Land Conservation and Development Commission reviewed Powers' proposed comprehensive plan in September, 1980, and found that the urbanization element of this proposed comprehensive plan required more justification in order to satisfy Statewide Planning Goal 14.
- 4. Based upon LCDC's review and a revised analysis of the factors listed in Goal 14 and the Powers comprehensive plan, the Board finds that the urban growth boundary for the City of Powers described in "Exhibit A", attached hereto and incorporated herein by reference, is justified and appropriate pursuant to Statewide Planning Goal 14.
- 5. "Exhibit A" also describes land use designations for the City of Powers urban growth area which are appropriate and in conformance with Statewide Planning Goal 14 and the Powers comprehensive plan.
- 6. The rationale and justification for establishment of this urban growth boundary and the land use designations within this urban growth boundary are

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set forth in "Exhibit B", attached hereto and incorporated herein by reference, and in the Powers comprehensive plan.

## SECTION 5. REPEAL OF PRIOR ORDINANCE

The ordinance known as "The Urban Growth Boundary ordinance" for the City of Powers, Oregon, an Element of the Coos County Comprehensive Plan" adopted by the Board of County Commissioners on May 16, 1980, is hereby repealed.

## SECTION 6. ADOPTION OF URBAN GROWTH BOUNDARY

The boundary described in the attached "Exhibit A" is hereby adopted as the urban growth boundary for the City of Powers, Oregon.

## SECTION 7. ADOPTION OF LAND USE DESIGNATIONS

The land use designations indicated on the attached "Exhibit A" are hereby adopted as the land use designations for the City of Powers urban growth area.

ADOPTED THIS 21st day of Quency, 1982.

BOARD OF COMMISSIONERS

DOT J Chairman

ATTEST:

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Borott. Corpur Recording Secretary

Approved as to form:

Office of Legal Counsel

ORDINANCE - 4

Absent

Commissioner

EXHIBIT B

#### URBANIZATION ELEMENT

as revised by the City of Powers June, 1981

## INTRODUCTION

The City of Powers has re-considered its projections of future land use in and around the City which are the foundation of the existing urbanization element of the Comprehensive Plan and the associated Urban Growth Boundary Agreement between the City and Coos County.

Two main factors have contributed to a decision by the City to completely revise its proposed Urban Growth Boundary. First, the City used a population projection for the year 2000 which is coordinated with Coos County. Second, a new buildable lands survey was taken to provide accurate current information about the extent of developed and vacant land within the City.

The City has also considered each of the eight factors which must be addressed under Goal 9 (Economy) and the seven factors from Goal 14 (Urbanization) and believes that its proposed revised Urban Growth Boundary is justified under the goals.

#### DESCRIPTION OF PROPOSED URBAN GROWTH BOUNDARY

The City of Powers desires that the following lands outside the City Limits be included in its revised Urban Growth Boundary:

#### Location

Acres

- 30.3 acres of land owned by Georgia-Pacific Corporation adjacent to the Southeast corner of the City Limits in Tax Lot 1300 (S13D,T31,R12) and Tax Lot 400 (S18,T31,R11);
- 29.0 acres of land owned by Howard Jesse Coldiron and located east of Johnson Mountain Rd., west of the Powers State Airport and north of Estes Creek in Tax Lots 600 and 1200 (S19,T31,R11) and Tax Lot 400 (S24, T31, R12);
- 3. 77.5 acres of land owned by the State of Oregon Board of Aeronautics in Tax Lot 300 (S24,T31,R12) and Tax Lot 500 (S19,T31,R11);
- 4. 0.15 acres owned by Howard Jesse Coldiron and located east of the Johnson Mountain Rd. and south of the South Fork of the Coquille River in Tax Lot 2000 (S12D,T31,R12);
- 5. 24 acres owned by the Powers family in Tax Lot 500 (\$13C,T31,R12) comprising the easterly one-half with western boundary midway between the corners of Tax Lot 500, south on the same bearing as the western boundary of Tax Lot 500.

NOTE: All acreage figures are approximate.

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#### FUTURE LAND NEEDS

The City's Buildable Lands Survey includes a determination of the amount of residential, commercial and industrial land which will be needed to accommodate the projected year 2000 population at today's densities.

	Land Needed	Land Available in Cit
Residential	38 Acres	102.19 Acres
Commercial	6.56 Acres	13.61 Acres
Industrial	5.33 Acres	3.00 Acres

While the City has adequate vacant available land to meet the residential and commercial needs of its anticipated year 2000 population, very little, if any, industrial development can occur because there is not adequate land available for that use. Reliance on using the existing level of industrial activity to determine the land needs of industry in the Powers of the year 2000 cannot be considered satisfactor or reasonable.

Expansion of the area's industrial base will be necessary to achieve the small predicted population increase to 1,340 persons. Therefore, the City has developed its Urban Growth Boundary based on economic needs.

## GOAL 9 (ECONOMY) CONSIDERATIONS

Goal 9 requires jurisdictions to address the following seven factors during determination of whether or not additional land is needed for commercial or industrial uses:

#### 1. Health of the Current Economic Base r

Powers has always been dependent on the wood products industry for its basic employment. When the Georgia-Pacific Corporation's veneer mill was operating in the 1960's, population increased to a peak of 1,366 in 1968. By 1970, Georgia-Pacific had exhausted its old growth timber resource and closed its mill and rail facility; population dropped to 842.

The City's current estimated population of 993 is still dependent on the forest resource. The United States Forest Service and the Rose City Archery Company are the two major emoloyers; all other employment is provided by the public service and commercial sectors.

Historical and current data on unemployment for the City of Powers is no available. For planning purposes, the City has made assumptions about its economic condition based on Coos County data. However, one specific indicator of the state of the Powers economy is the fact that it is tne only City is Coos or Curry Counties that has been determined to be eligible for the Urban Development Action Grant (UDAG) Program of the U.S. Department of Housing and Urban Development.

The UDAG program is designed to assist economically distressed cities by revitalizing their economic base, providing jobs, and reclaiming deteriorated or aging neighborhoods. To be eligible, cities must meet at least three of four symptoms of distress:

- Per capita income \$1,424 or less net increase between 1969 and 1974
- Population lag/decline .31 percent or greater decline from 1970 to 1975
- Housing stock 34.15 percent or more constructed prior to 1940
- Poverty level 11.24 percent or more of City's popula-

Powers can use the UDAG program as an incentive to attract new industrial development to the City, but without adequate vacant buildable land the City is severely limited in what it can offer potential developers.

## 2. Materials and Energy Availability

The City foresees no particular problems with the availability of either materials or energy for increased economic development. Large capacity power lines, which were necessary to handle the load of the Georgia-Pacific mill are still in place. Another potential source of power for industry is located nearby in the coal reserves at Eden Ridge. It expects that new industrial development will either use wood as its basic material or will truck in unfinished materials of some type such as electronics components for assembly/completion and subsequent trucking out.

## 3. Labor Market Factors

Powers residents are affected by the County's overall unemployment which results from a soft National lumber market. When market conditions improve, employment will increase. The City's population projection of 1,340 people in the year 2000 was developed in cooperation with Coos County with the expectation that there will continue to be cyclical changes in the lumber market/employment situation. The migration of 500 persons from the City in the early 1970's was the direct result of the closure of the major mill. Many employees and their families prefer to live in a small town like Powers in an area full of recreational opportunities; all that's needed to bring them to the City is renewed industrial activity.

#### 4. Transportation

Highway 242 is the primary link between Powers and the rest of Coos County. This two-lane road has turnouts and is adequate for truck traffic including log trucks.

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A typical modern mill will require an annual supply of 30 to 40 million board feet of timber per year to operate profitably. This would probably be either a studmill or veneer plant specifically designed to handle small-diameter logs. Such mills are often initially chip and saw operations which can be expanded to peel veneer and make plywood.

The Powers District of the Siskiyou National Forest currently harvests approximately 48.7 million board feet of timber per year. According to the 1981 Draft Siskiyou Management Plan, 49% of the Powers District volume is in mature old growth fir. The plan states that the annual harvest volume will increase to 50 mbf/year and should remain stable at that level for the next 20 years. Mood from the District is now being processed in Crescent City, California, Dillard, Riddle and North Bend.

Georgia-Pacific Corporation has 65,000 acres of land within the Powers working circle. Much of the land was acquired by the Company in the 1950's and 1950's after its old growth timber had been cut, but reforestation efforts have been successful and Georgia-Pacific expects to harvest those stands within the next 20 years. The Company expects a sustainable annual harvest of 40-50 million board feet of timber from the working circle within 30 years. Harvesting activity will be continuously increasing between 1990 and 2000 and it will be during that decade that the Company will make its decision about what type of mill operation it can support in Powers - provided there is a suitable industrial site available

The City is dedicated to the development of smaller industrial operations which will use not only fir from the surrounding forests but also other species including alder white cedar, maple, madrone, and tanoal Rose City Products, the City's only current industry, is one example of a small wood products company. It uses Port Orford White Cedar to make shakes, planter boxes and arrow shafts (for a world-wide market).

#### 7. Availability of Land

The City of Powers intends to ensure the availability of an industrial site suitable for a large mill and adequate sites for small industrial enterprises during the planning period. There is virtually no vacant industrial zoned land within the City at the current time. Over half of the vacant 4.96 acres are covered by a log pond and, since the property is part of a much larger parcel, are not likely to be available to anyone but the owner. Georgia-Pacific Corporation.

The City has included 4 discrete sites in its proposed urban gorwth boundary to provide for industrial expansion in the future. Both the Georgia-Pacific and Powers properties are considered good large industrial sites. It is likely that, in addition to one mill, there could well be a separately owned log sorting facility on the other site. Historically, a log sorting operation was located on the Powers property all during the time the Georgia-Pacific mill operated. The Powers timber holdings are only 1/5 of Georgia-Pacific's but at 12,000 acres of predominantly commercial size 2nd growth stock, the Powers resource will require room to sort and/or process.

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The Georgia-Pacific property in the proposed Urban Growth Boundary has historically been in industrial use since the 1960's and is currently the site of a log sorting operation. It is the only property the Company owns suitable for a large mill in the Powers area. When Georgia-Pacific was operating its Powers mill in the 1960's, it was located on 70 acres in the north part of the City on property that is now a County Park.

Provision of alternative sites for small industrial development for Powers is just as crucial as accommodating potential major mills in the Urban Growth Boundary. In fact, the City of Powers is especially committed to ensuring that there will be land available for the small developers. Currently, there is no place within the City for such development. Vacant lands, regardless of current zone designations, have been considered by the Planning Commission and have been found to be unsuitable due to proximity to residential neighborhoods and parks.

The best location for small industry is the Coldiron property south of the City Limits. Road access to the site is good since it abuts the Powers-Agness road and there are very few residences in the vicinity. Additional small sites could be available on lease at the adjoining Powers State Airport.

## GOAL 14 (URBANIZATION) CONSIDERATIONS

Goal 14 requires the City to provide for an orderly and efficient transition from rural to urban land use and provides for the establishment of an urban growth boundary which is justified based on consideration of specific factors. The City of Powers believes that its proposed Urban Growth Boundary is justified because of the following

- Demonstrated need to accommodate long-range urban perulation growth requirement consistent with LCDC goals
   Lands outside the current City Limits must be made available for industrial development because there is not adequate suitable land within the City to accommodate large or small industry.
- Need for housing, employment opportunities, and livability
   Powers needs, and desires, increased employment opportunities to support its feture population. There is an ample timber resource to support new and expanded wood products industries in the area. However, such industrial development cannot occur without suitable and available sites.
- Orderly and economic provision for public facilities and services
   The City can provide water services and police and fire protection to the urban growth boundary area as needed. Develocers will be required to bear the cost of services.'

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## Maximum efficiency of land uses within and on the fringe of the existing urban area

The lands to be included in the Urban Growth Boundary are currently in use in one or more of the following ways: seasonal cattle grazing, log sorting, aircraft landing strip and plane parking. These lands, with the exception of the Airport facility itself, would be more efficiently used if they were supporting industrial operations.

## 5. Environmental, energy, economic and social consequences

In order to continue as a viable community, Powers must be able to attract industry which will provide jobs for current and future residents. Sufficient land must be available for various uses to insure choice for potential industrial developers. Without sufficient choice, the City will continue its little or no growth pattern of the last ten years. There are no environmental or energy problems foreseen as a result of renewed industrial activity in Powers. The economic and social consequences are expected to be positive, particularly because new job opportunities will allow persons to come to or remain in an area highly valued for its livability and recreation potential.

## 6. Retention of agricultural land

If full development occurs on all the lands in the proposed Urban Growth Boundary, some agricultural land will be lost. The Coldiron property and portions of the Airport and Powers property have Class III soils; however, historical use of those properties for agriculture has been minimal. Hay crops have been attempted by various owners on those sites with discouraging results. For the past 15-20 years, there has been some cattle grazing but only on a seasonal basis.

## 7. Compatibility of the proposed urban uses with nearby agricultural activities

Industrial development on the lands in the proposed Urban Growth Boundary would be compatible with nearby agricultural activity which consist almost totally of forest areas and grazing pastures.

#### LAND USE DESIGNATIONS

Land use designations within the Powers Urban Growth area are shown on the attached Powers UGB COMPREHENSIVE PLAN LAND USE DESIGNATIONS map dated 10 Nov. 81.

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5.9 MYRTLE POINT

Volume I Part 2 996

Bill Juli BOARD OF COMMISSIONERS COUNTY OF COOS JUL 15 協計 [][] STATE OF OREGON 3 MARY AND VILEON In the Matter of Adopting an Amended Urban Growth Boundary for the City of 5 OR 81-012 Write Point, Oregon THE BOARD OF COMMISSIONERS for the County of Coos ordains as 7 follows: 9 SECTION 1. 10 This ordinance shall be known as "Coos County Ordinance Number 11 OR 81-012, an Element of the Coos County Comprehensive Plan." 12 SECTION 2. AUTHORITY 13 This ordinance is enacted pursuant to the provisions of 14 ORS 203.035 and ORS Chapter 215. 15 16 SECTION 3. PURPOSE 17 The purpose of this ordinance is to adopt an amended urban 18 growth boundary for the City of Myrtle Point, Oregon. This 19 ordinance also establishes land use designations for the City of 20 Myrtle Point urban growth area. 21 SECTION 4. FINDINGS 22 The Board of Commissioners of Coos County finds that: 23 1. Statewide Planning Goal 14, Urbanization, 24 requires that urban growth boundaries be 25

established to identify and separate urbanizable

land from rural land. Goal 14 further provides

that establishment and change of urban growth

boundaries shall be based upon consideration of the following factors:

- (1) Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;
- (2) Need for housing, employment opportunities, and livability;
- (3) Orderly and economic provision for public facilities and services;
- (4) Maximum efficiency of land uses within and on the fringe of the existing urban area;
- (5) Environmental, energy, economic and social consequences;
- (6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
- (7) Compatibility of the proposed urban uses with nearby agricultural activities.
- 2. On July 14, 1980 the Coos County Board of Commissioners adopted an ordinance known as "The Urban Growth Boundary Ordinance for the City of Myrtle Point, Oregon, an Element of the Coos County Comprehensive Plan." The purpose of that ordinance was to adopt an urban growth boundary for the City of Myrtle Point and to establish land use designations for the City of Myrtle Point's urban growth area. The

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boundary and land use designations were also adopted by the City of Myrtle Point as is required by Statewide Planning Goal 14, Urbanization, and Land Conservation and Development Commission policy. The boundary and land use designations were subsequently submitted to LCDC for acknowledgement pursuant to ORS 197.251 along with the remainder of Myrtle Point's comprehensive plan and its implementing ordinances.

- 3. The Land Conservation and Development Commission reviewed Myrtle Point's proposed comprehensive plan in December, 1980, and found that the urbanization element of this proposed comprehensive plan violated Statewide Planning Goal 14.
- 4. Based upon LCDC's review and a revised analysis of the factors listed in Goal 14 and the Myrtle Point comprehensive plan, the Board finds that the urban growth boundary for the City of Myrtle Point described in "Exhibit A", attached hereto and incorporated herein by reference, is justified and appropriate pursuant to Statewide Planning Goal 14. "Exhibit A", also describes land use designations for the City of Myrtle Point . urban growth area; which are appropriate and in conformance with Statewide Planning Goal 14

ORDINANCE - 3

and the Myrtle Point comprehensive plan.

6. The rationale and justification for establishment of this urban growth boundary and the land use designations within this urban growth boundary are set forth in "Exhibit B", attached hereto and incorporated herein by reference, and in the Myrtle Point comprehensive plan.

#### SECTION 5. REPEAL OF PRIOR ORDINANCE

The ordinance known as "The Urban Growth Boundary ordinance for the City of Myrtle Point, Oregon, an Element of the Coos County Comprehensive Plan", adopted by the Board of County Commissioners on July 14, 1980, is hereby repealed.

#### SECTION 6. ADOPTION OF URBAN GROWTH BOUNDARY

The boundary described in the attached "Exhibit A" is hereby adopted as the urban growth boundary of the City of Myrtle Point, Oregon.

#### ADOPTION OF LAND USE DESIGNATION SECTION 7.

The land use designations indicated on the attached "Exhibit  $\mathcal{X}$ are hereby adopted as the land use designations for the City of Myrtle Point urban growth area.

ADOPTED THIS 15-14 day of BOARD OF COMPHISSIONERS

ATTEST Recording Secretary

Approved as to form:

of County Counsel

ORDINANCE - 4

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Volume I Part 2

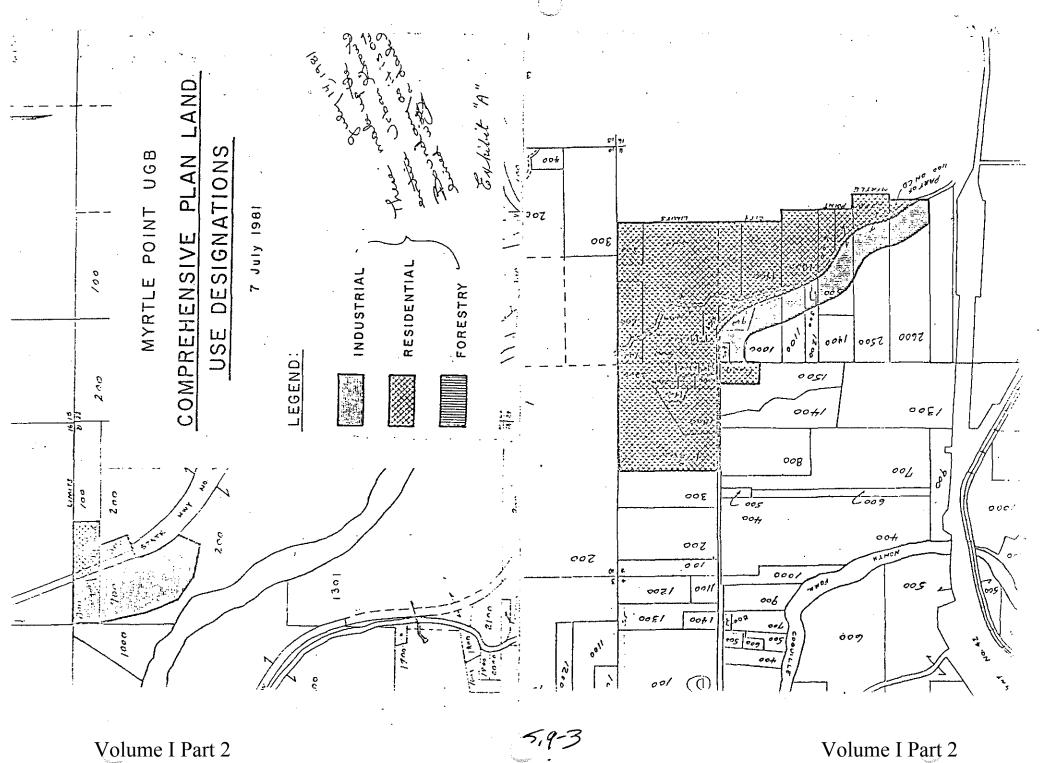


Exhibit "B"

CITY OF MYRTLE POINT
URBANIZATION ELEMENT

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The Coos County Comprehensive Plan

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The City of Myrtle Point Comprehensive Plan

May 1980

Corrected June 1980

Corrected April 1981

Corrected by Cook Com

June 1981

This Element was jointly prepared by the City of Myrtle Point, Coos County Planning Department and the Coos-Curry Council of Governments.

TABLE OF CONTENTS

Introduction

Population Projections

Population Growth in the Urban Growth Study Area
Total Population Growth for the City and Urban Growth Study Area

Projected Housing and Land Needs

Overall Housing Needs

Housing Projections by Type

Commercial and Industrial Land Reeds

Buildable Lands Report

Suitable Lands Classification

Suitability of Vacant Residential Lands within City Limits

Adequacy of Lands within City Limits to Accommodate Housing Reeds

Suitability of Available Residential Lands within the Urban Growth Study Area

Proposed Residential Urban Growth Area

Accommodation of Projected Housing Types

_ Suitable-Available Industrial Land

Evaluation of Alternative Industrial Sires

Suitable-Available Commercial Lands

Susmary

Findings

59-4

#### CITY OF MYRTLE POINT URBANIZATION ELEMENT

#### Introduction

The following Urbanization Element has been jointly prepared by the Coos County Planning Department, City of Myrtle Point and the Coos-Curry Council of Governments. The Urban Growth Boundary and the land uses that have been designated within the Urban Growth Area are the results of many months of work by all parties involved.

The City of Myrtle Point initially proposed an Urban Growth Boundary somewhat larger than the final version. The process and rationale the City used in initial determination of the Urban Growth Boundary was less complex than the process the County was proposing to use in the determination for Urban Growth Boundaries in the County. Therefore, the City agreed that the County Planning staff would prepare a draft urbanization element that would be compatible with urbanization work occuring in other areas in the County. This Urbanization Element is to be included in both the Coos County and Myrtle Point Comprehensive Plans.

## POPULATION PROJECTIONS

A Rational Population Projection is the initial basis for determining how much land is needed for future urban growth in Myrtle Point. The population projections are derived in part from the following historical data:

Table 1 ... Myrtle Point Historic Population Figures 1950-1978

	Myrtle	Coos	% Share
<u>Da te</u>	<u>Point</u>	<u>County</u>	In City
19501	2033	42265	4.81
1960 [±]	2886	54955	5.25
19701	2511	56515	4.44
19712	2575	56720	4.53
1972 ²	2595	57300	4.53
1973 ²	2665	58100	4.59
- 19742	2715	59070	4.60
1975*	2790	59700	4.67
1976*	2850	60200	4.73
19772	€900	61700	4.75
1978 ²	3000	63200	4.75

Source: 1. U.S. Census, 2. Portland State University with staff computations.

Figure 1

CITY OF MYRTLE POINT: POPULATION EXPRESSED AS FERCENTAGE OF TOTAL CCOS COUNTY POPULATION, 1950 - 1976

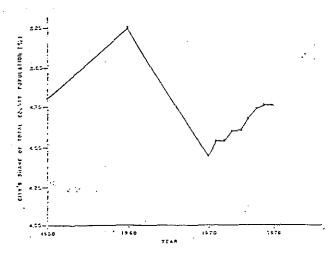
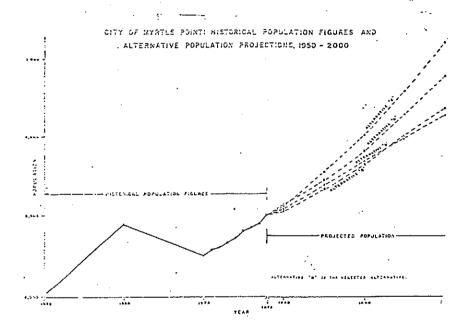


Figure 2



As Table 1 and Figures 1 and 2 clearly show, the City's population has resumed a steady growth during the 1970's, following a drop between 1960 and 1970. Four alternative population projections are presented below in Table 2.

Table 2
Myrtle Point Alternative Population Projections 1980-2000

<u>Date</u>	A. City Estimate 2.2%	B. Linear Regression Based on 1970-1978 Population	C. Based on 1970-1978 % Share Trends	D. Based on 1978 % Share Trends
1980	. 3134	3090	3120	3050
1985	3452	3385	3552	3345
1990	3829	3685	4035	3645
1995	4292	3990	4595	4005
2000	4785	4280	5200	4370

#### Alternative A:

The City projection is one of three alternatives considered in the City's Comprehensive Plan. It is based on the assumption that the population will grow at a compound annual rate of about 2.15%. This projection is schewhat higher than that predicted county-wide under the Portland State University "High" projection, which the County uses for its overall population projections. This is regarded as a relatively optimistic projection, since it assumes that the City of Myrtle Point will grow at a faster rate than Coos County as a whole during the period 1989-2000.

#### Alternative B:

This alternative is based on a "linear regression equation" using the 1970-1978 population trends. The equation is simply a mathematical method by which past trends are projected into the future, forming a straight line on the graph, as shown in Figure 2. The equation is as follows:

$$y = 2436 = 95.42x$$

Where: y = predicted population

x = number of years since base date (1970)

 $*r^2 = 0.99$ 

*The statistic  $r^2$  is known as the "coefficient of determination". This sim-

ply expresses the degree of closeness between the observed data and the line, when drawn on a graph. When  $r^2 = 0.99$ , this means that 99% of the variation between the data and the line is explained by the equation.

This projection is based on the assumption that the 1970-78 growth trends will continue through the year 2000. Growth in Myrtle Point during this period was slightly less than that predicted for the County as a whole, according to the PSU "High" projection.

#### Alternative C:

This alternative is based on a different linear regression equation, using the trend in the City's percentage share of the total county population for the period 1970-78 (see Table 2 and Figure 2). That percentage share trend is projected into the future and applied to the Portland State "High" figures. The equation is as follows:

$$y = 4.42 + 0.04x$$

Where: y = Myrtle Point's % share of total county population x = number of years since base date (1970). $r^2 = 0.96$ 

This predicts an increasing percentage share of the County's population and based on this, a population of 5,200 persons by the year 2000. This is well in excess of the city/CCCOG projection, and is considered improbably high.

## Alternative D:

This alternative is based on the assumption that Myrtle Point will grow at the same rate as the County as a whole between 1980 and the year 2000. This alternative represents a compound growth rate of 1.72% annually, based on the Portland State "High" projection. This alternative is considered the most reliable and is selected as the basis of housing and other land needs. The rationale for this selection is as follows: it is difficult to justify the assumption that Myrtle Point would sustain a growth rate significantly higher than that of the County as a whole over the whole planning period. Some degree of consistency has been maintained between the overall projection and that of the various cities. . It is clear from past trends that while certain cities have grown at a faster-than-average pace, Myrtle Point will probably not continue to do so.

## Population Growth in the Urban Gro.:th Study Area

The Urban Growth Area as originally proposed by the City is selected as the study area (see Map 1). At present, this area is sparsely developed with rural homesites of various acreages. The current count of dwellings is 36 dwelling units, which yields a population of 100, assuming the average county-wide household size (2.77). Assuming this area grows at the same rate as that predicted for the County as a whole, a small increase in population can be estimated, as follows:

TOTAL	45	persons
1995-2000	10	persons
1990-95	15	persons
1985-90	10	persons
1980-85	10	persons

## Total Population Growth for the City and Urban Growth Study Area

The combined population to be provided for is shown in Table 3. This table is based on Alternative.D and the Urban Growth Study Area projection.

Table 3 Myrtle Point Urbanization Selected Population Projection 1978-2000

Date	City Popu- lation	Urban Growth Area	Total Popu- lation	Growth Since Previous Date
1978	3000	100	3100	
1980	3050	100	3150	50 .
1985	3345	110	3455	305
1990	3645	120	3765	310
1995	4005	135	4140	375
2000	-4370	145	4515	375
TOTAL NET GROWTH 1978- 2000	1379	45	1415	1415

According to these projections, provisions must be made for an increase of 1370 persons in the City, plus 45 in the unincorporated area, a total of 1415 persons by the year 2000.

5,9-7

#### PROJECTED HOUSING AND LAND NEEDS

## Overall Housing Needs

From the 1980 housing and land use survey the number of dwelling units has been shown to be 1,088 (1,073 occupied plus 36 vacant units). By using the 1980 population figure, the average number of persons per dwelling can be calculated. In comparing this figure with the trend over the last ten years, a slight reversal of the trend toward smaller households can be seen.

		Table 4				
	∦ of Dwelling Units	Population	Persons/ Dwelling Units			
1960	929	2,886	3.11			
1970	891	2,511	2.82			
1978	1,084	3,000	2.76			
1980	1,088	3,050	2.80			

The trend to smaller household sizes, however, is expected to continue into the middle of the 1980's, with a relatively stable household size by 1990 as projected by the State Housing Division. The household size can be used to make the following initial projection of housing needs.

Table 5

<u>Population</u>	Persons/Duelling Units	Occupied <u>Dwelling Units</u>	Difference
3,050 3,345 3,645 4,005 4,370	2.80 2.65 2.59 . 2.55 2.55	1,073 1,262 1,407 1,571 1,714	189 145 164 143

## These calculations show a need for 641 dwelling units by the year 2000.

In addition to the projected housing needs, some provision must be made to maintain the vacancy rate in Myrtle Point at an acceptable level. An acceptable number of vacant homes are desirable at any time in order to maintain a reasonable balance between the forces of supply and demand. The calculations are based on the following assumptions:

- 1. It is assumed that if Myrtle Point vacancy rates in 1970 were 10% lower than those for the County as a whole, that they differed by the same amount in 1980.
- 2. Separate vacancy rates are used for owner occupied and rented homes. It is assumed that Myrtle Point had the same proportion of each in its housing stock in 1980, as existed in 1970 (61.8% owner occupied, 38.2% rented rounded to 60% an 40% respectively).
- Acceptable vacancy rates are at least: 1.6% for owner occupied and 5.0% for units for rent (State Housing Division). It is assumed that vacancy rates can be raised to these levels by 1985 with increased home construction.

The calculations are shown in Tables 5a and 5b. The results of these calculations indicate a need for an additional 11 homes for sale and 25 for rent, a total of 36 homes to satisfy vacancy needs by 2009

#### Table 5a

## Myrtle Point Urbanization

Additional Dwelling Units Required to Maintain Vacancy Rates

Calculation of Vacancy Rates for 1978 (% Total Housing Stock)

	<u> 1970</u>					1978	•
COUNTY	WIDE	MYRTLE !	POINT	COUNTY	WIDE	MYRTLE P	OINT -
Owner	-	Owner		Owner		Owner	
Occupied	Rented	Occupied		Occupied	Rented	Occupied	Rented
7.13%	7.64%	0.6%	7.9%	1.5%	1.90%	(0.85%)	(1.96%)

Source: U.S. Census and State Housing Division
Coos County Draft Comprehensive Plan, p.Q-4
Example - Myrtle Point assumed vacancy rate for owner occupied dwellings

0.6% = 0.85%

Table 55

## Myrtle Point Urbanization

Additional Dwelling Units Required to Maintain Vacancy Rates Calculation of Additional Housing Units 1980-2000

	- Dwellin	g Units	Vacancy Rate	Number of Vacant Units	Additional Units Over Previous Figure	Combined Total
1980	Total	1,073		_		1,088
	0/000	646 -:	0.85%	6 9	-	652
	Rented	427	1.96%	9	-	436
1985	Total	1,262			•	1,299
	0/000	757	1.6%	. 12	6	769
	Rented	505	5.0 %	25	16	530
7.000	Total	1 407				3 440
.1990	Total	1,407	2	* *	3	1,449
	0/000	844	1.6 %	14	2 3	858
	Rented	563	5.0 %	28	3	591
1995	Total	1,571			_	1,617
	0/000	943	1.6 %	15	1	958
	Rented	628	5.0 %	31	1 3	659
2000	Total	1,714				1,765
2000	0/000	1,028	1.6 %	17	2	1,045
•	Rented	686	5.0 %	34	2 3	720
	Kenren	000	J.U 5	34	. <del></del>	720
TOTAL	0/000				11 .	
	Rented				25	

Thus the projected housing need is for 577 dwelling units (54) occurred units plus 36 vacant) to accommodate the City's population as projected to the

## Housing Projections By Type

The following table shows the trends in different types of housing since 1976:

		,		
	# <u>19</u>	7 <u>5</u>	<u>May</u> 1	1981
Single Family	778	77.7 `	- 807	74.2
Multi-Family	166*	16.6	168	15.4
Mobile Homes	57	5.7	113	10.4
Total	1,001		1,088	

*May be as much as 10 units high. Building permit data show 12 Multi-Family permits issued since 1975 (all in 1980).

The following projection of housing needs by type is made on four assumptions:

- Single-family dwellings will continue to decrease in proportion to the rest of the housing stock due to increased cost, but will still be the predominant form of housing.
- Attached forms of housing will increase slightly in proportion to single-family housing due to the economic benefits of common wall structures. Increases in multi-family housing have occurred in other cities in Coos County in recent years.
- Mobile homes and multi-family dwellings will become a more acceptable alternative for low to moderate income housing needs.
- 4. The housing mix in the year 2000 will be:

Single-Family	65%
Multi-Family	20%
Mobile Homes	15%

The percentages of multi-family and mobile homes have been chosen by the City as reasonable projections of current trends and as a mechanism for providing affordable housing. Theoretically, if 35% of the housing stock is multi-family and mobile homes, this much housing will be available to people with low and moderate incomes. In 1970, about 34% of the population had annual incomes less than \$6,000 (plan, p. 43).

Table 7
Projected Housing Units By Type

Dwelling Type &	Number	Percent	Additional Units by	Type
March 1981 Tota	1 1,088			
Single-Family Multi-Family Mobile Homes	807 168 - 113	74.2 15.4 10.4		
1985 Total	1,299			٠.
Single-Family Multi-Family Mobile Homes	922 221 156	71.0 17.0 12.0	115 53 43	
1990 Total	1,449			
Single-Family Multi-Family Mobile Homes	985 275 189	68.0 19.0 13.0	63 54 33	
1995 Total	1,617			
Single-Family Multi-Family Mobile Homes	1,051 323 243	65.0 20.0 15.0	65 48 . 54	
2000 Total	1,765			
Single-Family Multi-Family Mobile Homes	1,147 353 265	-65.0 20.0 15.0	96 30 22	
			677*	

Summary of Addi Needed By	tional H The Year	ousing Units 2000
	# .	b' An
Single-Family	340 185	50.2 27.3
Multi-Family Mobile Home	152	22.5
	677	100.0

10

## Commercial and Industrial Land Needs

A very rough estimate of the City's commercial and industrial land needs can be calculated by extrapolating existing conditions to accommodate the projected population for the year 2000. The following table presents such an estimation:

	1980 Pop. Myrtle Point	Acres In Use	Persons/ _Acre	Pop. Inc. Year 2000	Addi- tional <u>Land</u>
Industrial	3,050	24.2	126	1,320	10.5 Ac.
Commercial	3,050	18.0	169	1,320	7.8 Ac.

It should be noted that such an approximation does not consider the size requirements a firm or group of firms may have in locating a manufacturing plant or industrial park. To locate a new mill, food processing plant, or light industrial park, a suitable site in the 20-30 acre range is needed.

#### BUILDABLE LANDS REPORT

## Suitable Lands Classification

This classification of suitable lands is based upon the premise that identifiable physical-environmental and public facilities factors place varying constraints on the suitability of land for urbanization. Constraint Values have been assigned to specific factors (listed below), and classes of suitability defined based on the summation of constraint values. In short, the more constraints on a given parcel of available land, the less suitable it is for urbanization. The constraint values and class definitions are as follows:

Urbanization Factor	Constraint Value
Slopes	
0-15% 15-30% 30+% Slump Hazard Topography	0 1 2 3.
Soils Limitations for Roads and Foundations	
Moderate Severe	0 1
Flooding Hazard 1	
"Possible" Flood Hazard Area "Known" HUD Flood Hazard Area	1 3

#### Definitions:

Suitable Lands - constraint value of 0 or 1.

Less Suitable Lands - constraint value of 2

Least Suitable Lands - constraint value of 3 or more

Constraint values were not assigned to public facilities. The existing and proposed public facility improvements will promote development first in vacant areas within City Limits and later in the Urban Growth Area north of the city. This is consistent with the city's goal "To provide orderly, timely, and efficient development of quality public facilities and services . . ." (Public Facilities Goal, Plan, p.113).

12

13

-9-10

Available HUD Flood Hazard Maps for Myrtle Point are highly generalized, thus "possible" and "known" values were assigned.

## Suitability of Vacant Residential Lands Within City Limits

Vacant available land in residential zones within the city limits has been analyzed to determine its suitability for residential development. Maps 2, 3, 11, and 12 were combined. Acreages have been determined as follows:

Table 8

	_R1	_R2	_R3_	<u>Total</u>
Suitable	70.0	16.7	2.5	89.2
Less Suitable	105.5	1.3	16.8	122.6
Least Suitable	64.7	-	26.9	91.6
		•		303.4

## Adequacy of Lands Within City Limits to Accommodate Housing Needs

The adequacy of vacant available land within the City's residential zones for meeting projected housing needs can now be evaluated. A range of development densities has been determined and applied to each suitability class. For suitable lands, a gross density¹ of 2.5 Dwelling Units/Acre is used. This is based upon the current gross density of 2.68 dwelling Units/Acre (1981) land Use Survey) and the consideration of the relatively greater complexity of the topography in the remaining suitable lands within the City. There is also evidence in the more recently developed neighborhoods that residents prefer a lower-density environment than that of the older neighborhoods. Examination of developed parcel sizes in the southeastern part of town indicates a predominance of lots of one-fifth to one acres, rather than the traditional 5,000 or 6,000 square foot lots.

For less suitable lands, a gross density of 2.0 Dwelling Units/Acre is used. This lower density figure recognizes that construction costs rise sharply as the degree of physical constraints at the building site increase.

Least suitable lands have been assigned a gross density of .35 Owelling Units/Acre, based upon the high costs of construction in these areas, particularly where slump hazards exist.

Using these densities, the number of dwelling units accommodated by suitable and available lands (in all residential zones) within the City is computed as follows:

Table 9

•	Acres	X	Gross Density	25	Dwelling Units
Suitable	89.2		2.50		223
Less Suitable	122.6		2.0		245
Least Suitable	91.6		.35		_32
	303.4		•	•	500

Thus 500 dwelling units can be accommodated within the city, leaving a shortfall of 177 dwelling units. Available and suitable lands within the City are not adequate to accommodate projected housing needs.

## 1. Includes rights of way.

3.4

# Suitability of Available Residential Lands Within the Urban Growth Study

Vacant land in the Urban Growth Study Area was analyzed to determine its suitability for residential development. Maps 3, 4, 5, 11, and 12 were combined (see Summary for discussion of agricultural soils). Unavailable land in the Urban Growth Study Area is currently developed or proposed for uses other than residential. Acreages are as follows:

Table 10

	Available (Ac)	Pot. Available (Ac)	T-4-2 (4.3
Suitable	45 .1	37.8	Total (Ac)
Less Suitable	60 4		82.9
Least Suitable		51.8	112.2
	<u>64.5</u>	<u>35.3</u>	8.001
Unavailable Land	170.0	125.9	295.9
			_47.8
Total Urban Growth Study Area	Ì		343.7

# Proposed Urban Growth Area for Residential Urbanization

Within the Urban Growth Study Area, the area east of Gravelford Road is well suited to accommodate the City's projected residential urbanization needs by the year of 2000. The number of dwelling units potentially accommodated by suitable available lands within this area are as follows:

Table 11

* d * 2 * *	North Portion of UGSA - Acres	X	<u>Density</u>	*	Dwelling Units
Suitable	35.8		2.50		90
· Less Suitable	47.5		2.00		
Least Suitable	32.6		35		95
	115.9	-			196
Unavailable	28.4		•		. 150
Total	144.3		-		

The total of 196 dwelling units potentially accommodated is slightly more than the need for 177 dwelling units demonstrated previously. The difference represents 3% of the total 677 units needed to accommodate projected population growth.

#### Accommodation of Projected Housing Types

The projection of housing units by type showed a need for 340 single family homes, 185 multi-family units, and 152 mobile homes (total = 677 units). Article 4 of the Myrtle Point Zoning Ordinance permits mobile homes on lots outright in the R2 and R3 zones. Mobile home parks are allowed outright in the R3 zone, and conditionally in R1 and R2 zones. Since other residential uses (including multi-family) are allowed in all zones, it is important to focus on accommodating projected mobile home needs in the R2 and R3 zones.

In order to project how many mobile homes are likely to locate on land within the R2 and R3 zones, assumptions must be made as to what the ratio of mobile homes to other types of housing will be. The ratios used here are based primarily upon existing land use patterns.

Assuming the ratio of mobile homes to other uses will be 3 to 1 in R-3, and 1 to 1 in R-2, the following approximation can be made. The densities used below are existing densities except in the case of least suitable lands, where the low figure of .35 D.U./Ac is assumed.

Table 13

			101				
R3 Zone					•		
			Acres		Density		Mobile Homes
Suitable	.75	X	2.5	X	3.87 D.U./Ac.	=	7
Less Suitable	.75	X	16.8	χ	3.87 D.U./Ac.	=	49
Least Suitable	.75	X	26.9	X	.35 D.U./Ac.	=	_7
•							63
R2 Zone							
<del></del>			Acres		Density		Mobile Homes
Suitable	.50	X	16.7	X	3.87 D.U./Ac.	=	32
Least Suitable	.50	X	1.3	X	3.87 D.U./Ac.	=	· <u>1</u>
							34

The approximation shows that the City's present R2 and R3 zones will accommodate 97 mobile homes. This presents a need for 55 mobile homes to be accommodated in R2 or R3 zones in the Urban Growth Area, or in parks in the R1 zone within the City. It is reasonable to expect some of the 55 mobile homes to locate in high or medium density parks within the City Limits.

The City is proposing zoning 22.5 acres in the Urban Growth Area as R2 to accommodate the projected mobile home need. The area chosen is located north of Spruce Street, an area of sloping terrain classified as "Less Suitable". Assuming a gross density of 2.0 DU's/Ac, this area will accommodate 45 of the 55 mobile homes projected. It is reasonable to assume the other ten units will locate through slightly higher densities, the location of another mobile home park within the City, or as conditional uses in other zones.

16

#### Suitable-Available Industrial Land

Vacant and available land in Myrtle Point that is zoned for industry equals approximately 12 acres (see Map 6). The land located in two areas - 3.3 acres south of Murphy Mill and several parcels totaling 8.5 acres near the City's southern boundary. The land near Murphy Mill is below the 46-foot contour and is subject to annual flooding. Extensive site preparation would be required to develop this parcel. The other vacant industrial areas include several parcels less than one acre is size and two parcels of approximately 3.5 acres each. These later two parcels have a portion of their lots on slopes exceeding 15%. In summary, the vacant and available industrial areas within the City have environmental (flooding, steep slopes) and parcel-size (< 3.5 acres) constraints which reduce their suitability for industrial development.

To offset these potential limitations and provide additional suitable land for firms with small land requirements (55 acres), the City has designated an area west of Gravelford Road in the Urban Growth Area for light industry. Existing land uses in this area are a mix of residential and light industrial; most of the light industrial uses are conducted in conjunction with residences. Approximately 20 acres have been designated light industrial in this portion of the Urban Growth Area; currently 5 acres are vacant and available. The area could accommodate additional light industrial uses in conjunction with existing residences.

To meet the needs of a larger firm or group of firms wishing to locate a manufacturing plant or industrial park, the City has designated an area south of the city limits for light industry. The site is under consideration for a light industrial park by Coos-Curry-Douglas Economic Improvement Association as part of a feasibility study. The locational characteristics of this site include:

- access to a major arterial (Highway 42)
- adjacent industrial uses
- little topographic relief
- no drainage problems or fill required
- marginal flood hazard
- presently vacant
- single owner
- potentially within proposed Urban Growth Boundary

Of the 37 acres proposed for industrial designation, 30 acres are vacant and available for light industrial uses. The land is currently in agricultural use for grazing and hay crops, and would become available for development if a suitable proposal emerges.

#### Evaluation of Alternative Industrial Sites

Alternative sites for future industrial development within city limits have been evaluated. These sites are adjacent to existing industrial uses and close to road and rail facilities on the north and west sides of the City. However, this land is also currently in agricultural uses and lies within the floodplain (see Maps 2 and 3). Filling and leveling would be prohibitively expensive and might increase risk of serious flooding elsewhere in the floodplain. For these reasons, these sites are considered less suitable alternatives for industrial development.

-9-12

## Suitable-Available Commercial Lands

Available and suitable commercial land within the city limits will accommodate approximately 6 acres of the projected 7.8 acres needed, leaving a shortfall of 1.8 acres. This shortfall is expected to be met through conversion of existing residences in the commercial zone and through commercial uses in other zones.

#### SUMMARY

The proposed Urban Growth Area and land use designations are shewn in the 17 and summarized in the following table:

Table 14

## Proposed Urban Growth Area

Suitable Land Available	
Residential (R1)	120.9
Residential (R2)	22.5
Light Industrial	35.0
Public Facilities	2.0
Total	180.4
Developed and Unavail- able Land	34.6
Total Proposed Urban Growth Area	215.0

The following findings summarize the City's projected need for land within the Urban Growth Boundary:

- 1. The City's population will increase 1,320 between 1980 and the year 2000.
- The City will need 677 additional dwelling units (340 Single Family, 185 Multi-Family, 152 Mobile Homes) to accommodate the projected population.
- 3. Assuming a range of densities for lands of varying suitability for urbanization, suitable available lands within the City Limits are adequate to accommodate 500 dwelling units. Suitable and available lands are needed to accommodate 177 dwelling units in an Urban Growth Area (UGA).
- "Straight line" projections show a need for 7.8 acres of additional commercial land. Suitable lands within the City are available to accommodate approximately 6 acres of this projected commercial growth.
- 5. "Straight line" projections show a need for 10.5 acres of additional industrial land. Approximately 12 acres are available within the City. The suitability of these lands is low due to flood hazards and small parcel sizes.

18

## Suitable-Available Commercial Lands

Available and suitable commercial land within the city limits will accommodate approximately 6 acres of the projected 7.8 acres needed, leaving a shortfall of 1.8 acres. This shortfall is expected to be met through conversion of existing residences in the commercial zone and through commercial uses in other zones.

#### SUMMARY

The proposed Urban Growth Area and land use designations are shewn in Hap-17 and summarized in the following table:

Table 14

## Proposed Urban Growth Area

Suitable Land Available	
Residential (R1)	120.9
Residential (R2)	22.5
Light.Industrial	35.0
Public Facilities	2.0
Total	180.4
Developed and Unavailable Land	34.6
Total Proposed Urban Growth Area	215.0

The following findings summarize the City's projected need for land within the Urban Growth Boundary:

- 1. The City's population will increase 1,320 between 1930 and the year 2000.
- The City will need 677 additional dwelling units (340 Single Family, 185 Multi-Family, 152 Mobile Homes) to accommodate the projected population.
- Assuming a range of densities for lands of varying suitability for urbanization, suitable available lands within the City Limits are adequate to accommodate 500 dwelling units. Suitable and available lands are needed to accommodate 177 dwelling units in an Urban Growth Area (UGA).
- 4. "Straight line" projections show a need for 7.8 acres of additional commercial land. Suitable lands within the City are available to accommodate approximately 6 acres of this projected commercial growth.
- "Straight line" projections show a need for 10.5 acres of additional industrial land. Approximately 12 acres are available within the City. The suitability of these lands is low due to flood hazards and small parcel sizes.

18

The following findings are made to justify the location of the Urban Growth Boundary:

- 1. The proposed UGA includes approximately 143 acres suitable and available land which is proposed for residential use. This land can accommodate 196 dwelling units at the assumed range of densities, and thus is adequate to accommodate the projected need for 177 dwelling units. The Urban Growth Boundary follows property lines in all areas except west of Gravelford Road which runs parallel to the road at a distance of 300 feet.
- 2. The proposed UGA includes approximately 35 acres of suitable land proposed for industrial use. This land meets the need -to make available small acreage without environmental constraints and a larger industrial lite to promote an intermediate scale industrial development. Locational characteristics of the latter area make it a favorable site for industrial development (see discussion on Suitable Available Industrial Land); the plan intends for this property to be designated "Industrial" on the Comprehensive Plan map, but to be zoned "Agriculture-20" on the Official Zoning Map. This is an Interim zone that is not deemed to conflict with the Plan designation, because it provides for an adequate supply of needed industrial land while at the same time allowing a farm tax deferral (EFU zoning) for the property owner until such time as a rezone is requested to allow the industrial development to proceed. The resone would be allowed to carry out the objectives of the Comprehensive Plan.
- 3. Much of the proposed UGA can be served with water through gravity flow or limited pumping from the present filtration plant. Other areas in the Urban Growth Study Area would require substantial pumping of filtered water or the location of a secondary filtration plant.

A street linking Spruce to Gravelford Road is tentatively proposed (dependent upon gaining easements) which will facilitate transportation between the UGA and the northern section of the City (see Map 13). Gravelford Road will serve as a minor arterial connecting the UGA to the City. Traffic on this arterial will have little negative affect on existing neighborhoods, as opposed to traffic on Maple Street if the UGA were located east of the City. Construction costs of collector roads will be lower in the proposed UGA than east of the City due to gentler terrain.

No sewer extensions are proposed by the City at present, but existing sewers reach to the edge of potential development areas on the north and southeast sides of the City.

The Gravelford Road area is seen as the area for Myrtle Point's residential growth and with the most economic provision of public facilities and services.

- 4. Within the proposed UGA, approximately 36 acres exist that are classified "Suitable". The availability of such land contributes to keeping construction costs down and thus promotes affordable housing. Other portions of the Urban Growth Study Area have very little land classified as "Suitable", largely due to steep slopes.
- The proposed UGA contains approximately 65 acres of SCS Class I-IV soils, broken down as follows: (see Map 8)

Class II 53.1 ac

Class III 4.6 ac

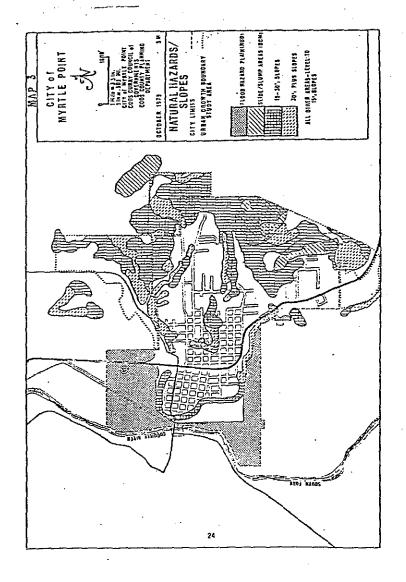
Class IV 8.1 ac

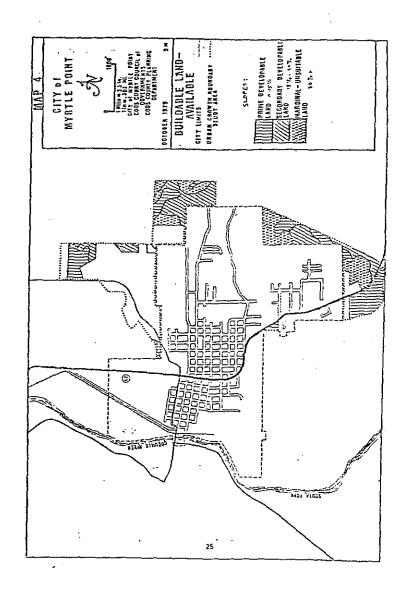
Approximately 33 acres of the Class II soils are located south of the City in the area proposed for industrial and residential uses. The City and County both recognize the agricultural value of the area. However, this land is partially committed to urbanization due to existing adjacent residential and industrial uses. There also exists a shortage of large vacant parcels suitable for industrial development within and around the City of Myrtle Point; this parcel has many characteristics which make it an attractive and logical location for industry. The City and the County both have recognized the apparent conflict between the Agriculture and Economic Goals. The Plan intends to designate this parcel for industrial uses, but to zone it for agriculture on an interim basis (see Findings 42, above). This would allow farm use to continue as long as the owner desired. However, if this parcel of land is every removed from agriculture, the most logical alternative zoning use would be industrial.

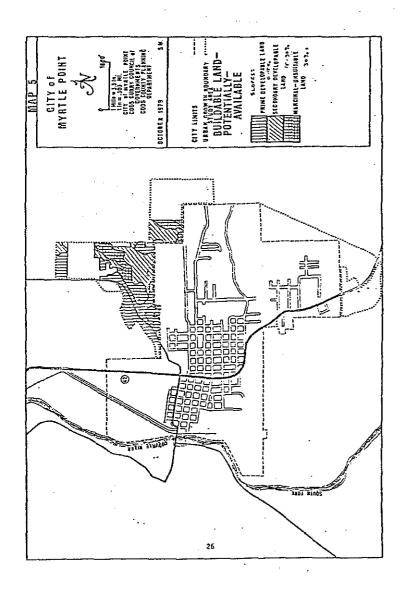
Other Class II-IV soils in the Urban Growth Area are located close to Gravelford Road and the existing residential and commercial uses along it.

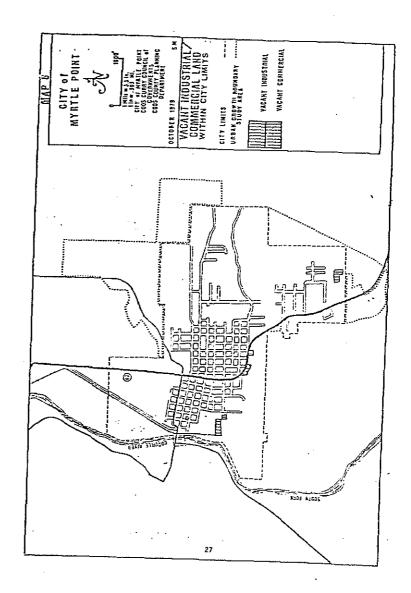
 Areas under forest cover are limited in the proposed Urban Growth Area. They are small, discontinuous, and are presently used for grazing and shelter for cattle.

-21-

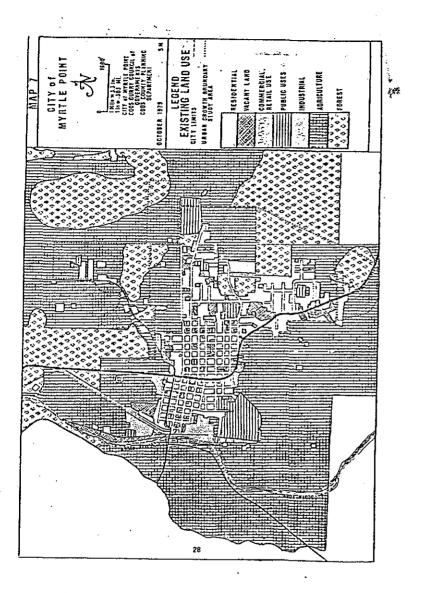


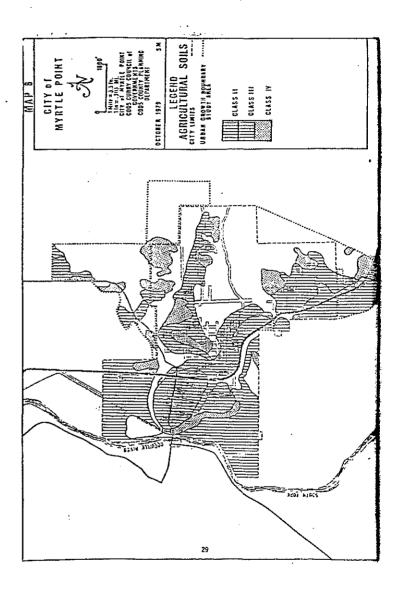




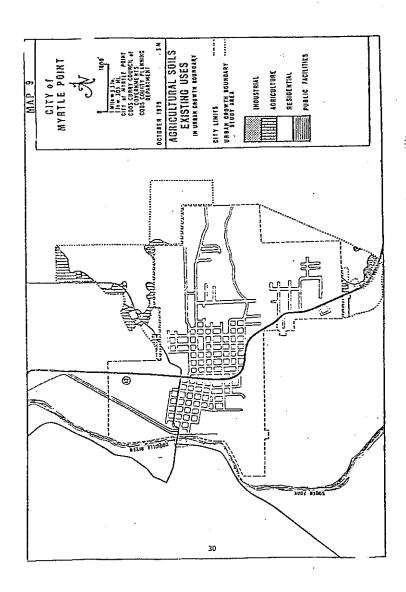


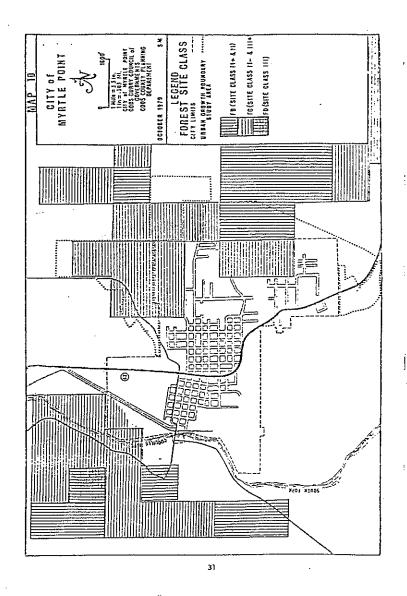
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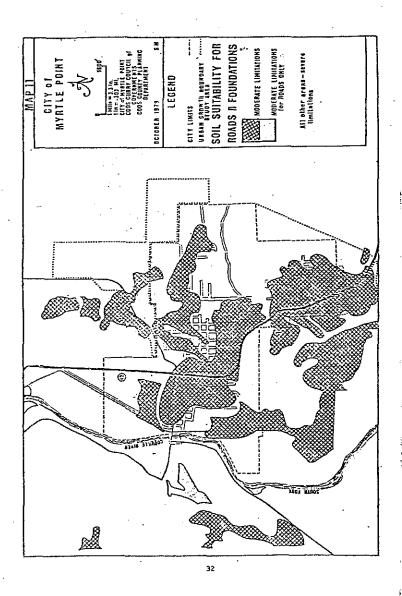


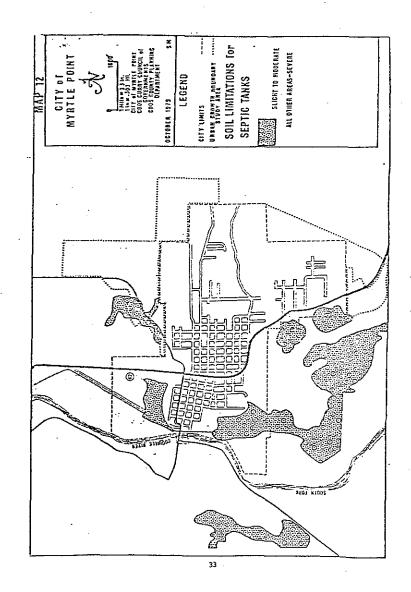


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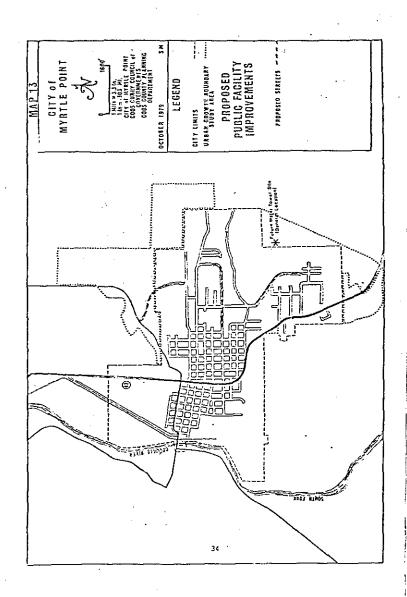


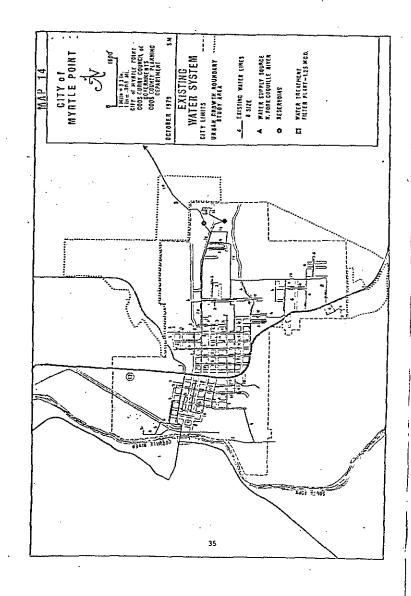




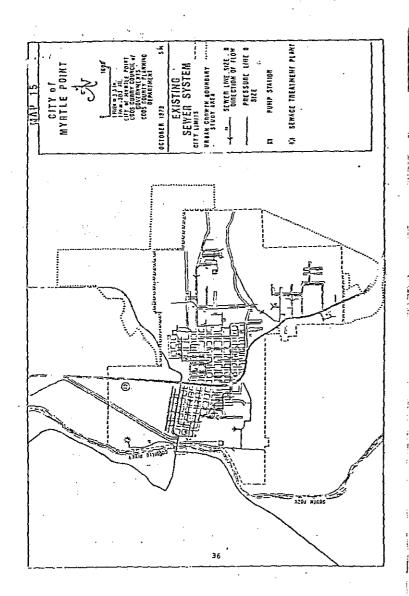


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5,9-22

5.10 BANDON

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Date	Bandon	Coos County	% County in City	Annual City Growth Rate
1950	1,251	42,246	2.96	
1960	1,653	54,955	3.01	`2.81*
1970	1,832	56,515	3,24	1.25*
1971	1,870	56,720	3.30	2.07
1972	1,895	57,300	3,31	1.33
1973	1.940	58,100	3.34	· 2.38
1974	2.044	59,070	3.46	5.36 ·
1975	2,080	59,700	3.48	1.76
1976	2,130	60,200	3.54	2.40
1977	2.228	61,100	3,65	4.60
1978	2,350	63.200	3.84	5.48
1979	2,575	63,500	4.06	9.57
1980	2,311	64,047	3.61	-10.25**

Sources: 1950, 1960, 1970 Census Data, Other figures - Portland State University (CPRC)

*Growth during decade used to form annual compound growth rate .
**Based on 1980 Census (Final Population and Housing Counts - PHC80-V-39).
Apparent decline is explained by differences between Portland State
estimates and Bureau of Census population counts.

As the graphs show, Bandon's population has grown at a faster rate since 1973 than during the previous decades. Growth has been much faster than in the County as a whole. During the last few years of the seventies, growth has been particularly strong. Fron 1970-1979, Bandon's population has grown at a compounded rate of 3.85%. Bandon's share of Coos County's population has also been steadily rising over the seventies. The historical trends of Bandon's population growth is shown in Figure 1. Four alternative projections are presented in Table 2.

TABLE 2

Population Projections - Bandon City

Date	County Projection	Α	В.	. с	. D
1980	64,200	2.435	2,505	2,523	2,673
1985	70,400	2.822	2,373	3,094	3,229
1990	76,700	3,272	3,251	3.673	3,900
1995	84,300	3,793	3.624	4.372	4,711
2000	92,000	4,394	3,998	5,080	5,690

County Projection based on high figures, Portland State University (CPRC)

- A. City/Coos-Curry Council of Governments Estimate
- B. Based on 1970-1979 Trend in City
- C. Based on City/County 1970-1979 TrendD. Compound Rate of Seventies Projected

# Urbanization Element City of Bandon TABLE OF CONTENTS

Introduction	PAGE
Population Projections	- 1
Basis for Alternative Projections	- 4 - 6 - 6
Projected Housing and Land Needs	- 8
"Basic" Housing Needs Extra Housing Provision for Vacant Units	- 9 - 10
Buildable Lands Report	- 13
Introduction	- 14 - 14 - 15
Proposed Bandon Urban Growth Area	- 17
Residential Land	- 18 - 19 - 19
Summary	
Findings	- 21
maps	

City of Bandon Historical Population Figures 1950 - 1979

Date	Bandon	Coos County	% County in City	Annual City Growth Rate
1950 1960 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979	1,251 1,653 1,832 1,870 1,895 1,940 2,044 2,080 2,130 2,228 2,350 2,575 2,311	42,246 54,955 56,515 56,720 57,300 58,100 59,070 60,200 61,100 63,200 63,500 64,047	2.96 3.01 3.24 3.30 3.31 3.34 3.46 3.48 3.54 3.65 3.84	2.81* 1.25* 2.07 1.33 2.38 5.36 1.76 2.40 4.60 5.48 9.57
			0.01	-10.25**

Sources: 1950, 1960, 1970 Census Data, Other figures - Portland State University (CPRC)

*Growth during decade used to form annual compound growth rate . **Based on 1980 Census (Final Population and Housing Counts - PHC80-V-39). Apparent decline is explained by differences between Portland State estimates and Bureau of Census population counts.

As the graphs show, Bandon's population has grown at a faster rate since 1973 than during the previous decades. Growth has been much faster than in the County as a whole. During the last few years of the seventies, growth has been particularly strong. From 1970-1979, Bandon's population has grown at a compounded rate of 3.85%. Bandon's share of Coos County's population has also been steadily rising over the seventies. The historical trends of Bandon's population growth is shown in Figure 1. Four alternative projections are presented in Table 2.

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County Projection based on high figures, Portland State University (CPRC)

- City/Coos-Curry Council of Governments Estimate
- Based on 1970-1979 Trend in City
- Based on City/County 1970-1979 Trend Compound Rate of Seventies Projected

Volume I Part 2

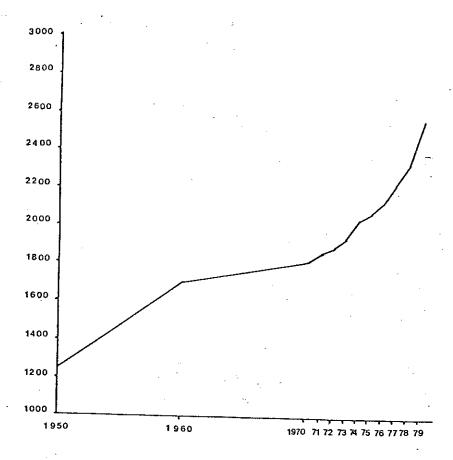
Urbanization Element City of Bandon

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TABLE OF CONTENTS

Introduction PAGE Population Projections ----Basis for Alternative Projections----Use of Population Projections ------ 4 Population Growth in the Urban Growth Area Total Population Projection - City and Urban Growth Area----- 6 Coordination of Urban Growth Area Projected Growth with----- 7 Coos County Plan Projected Housing and Land Needs ----- 8 Extra Housing Provision for Vacant Units-----9 Housing Projection by Type------10 Buildable Lands Report ------13 Buildable Residential Land in the City------14 Adequacy of Land in the City to Accommodate Projected Housing---- 14 Accommodation of Projected Housing Types ------ 15 Proposed Bandon Urban Growth Area Residential Land------13 Resource Land Considerations ----- 20

Summary ----- 21



BANDON POPULATION FIGURES

#### Basis for Alternative Projections

Alternative A: This estimate, devised by the City of Bandon and the Coos-Curry Council of Governments, was chosen from other alternatives in the City's comprehensive plan. It is based upon a constant 3% compound annual growth rate starting from 1977. This indicates that Bandon is growing and will continue to grow faster than the County. The 1980 figures is certainly low as current estimates exceed this figure. However, it is reasonable to expect that the rapid growth of 1977-1979 will fall off in future years.

Alternative B: This alternative is based on a "linear regression equation" using 1970-1979 population figures. The equation is a mathmatical model which projects the future population based upon past population growth. This linear regression projects population growth at a constant annual increment (in this case 74.6545 persons annually), and ignores compound growth factors. The result yields a straight line upon a graph. The equation is as follows: Yt = 1758.45 + 74.6545t

where t - the number of years from the base year (1970), thus to predict for 1985, t = 15

Yt = predicted population for year t

 $* R^2 = .9178$ 

This alternative will indicate probable population levels if the current amount of annual population increase continues. As such, it means the City will grow by a constant amount annually, with a progressively lower annual growth rate. Since Alternative A maintains a constant growth rate, projections using Alternative B will be lower.

Alternative C: This alternative is based upon a different linear regression where the City's population is expressed as a relationship to the County's population. It uses the data between 1970-1979 for both the City and County population to project the City's population based upon estimates for the population in the County. Implicit in the equation is the assumption that present trends (in which the City's population share of the County has been rising) will continue. The equation is as follows:

'Pt = .09199 Ct - 3383.23

where t - subscript denoting year forecasted

Ct = estimate for County population in year t

Pt = predicted population for Bandon in year t

 $*R^2 = .9526$ 

The statistic RZ is known as the co-efficient of determination. This expresses the closeness of the data and the line formed by the regression. When  $R^2$  = .9178, it can be assumed that 91.78% of the variation between the data and the line is statistically explained by the equation.

annual compound growth rate which has occurred during the seventies. However it may be that this growth rate will slow even more, making this projection too high. The assumption that 9% of the County's new residents will continue to locate in Bandon seems reasonable due to Bandon's unique status as the only ocean front city in Coos County.

Alternative D assumes that the present compound growth rate will continue for the next twenty years. This assumes that each year Bandon will have more new residents than it did the previous year. While this may be a reasonable assumption, a compound growth rate as was experienced during the seventies may be too high to expect for another twenty years.

Of the four alternatives presented above, Alternatives A and C appear to be the most realistic choices. Alternative A has been selected by the City and is the official projection coordinated with Coos County. The City recognizes that it is unlikely that the population will follow the projection, due to difficulties in accurately projecting small populations over 20-year periods.

#### Population Growth in the Urban Growth Area

The Urban Growth Study Area (U.G.S.A.) (see Map B 1) presently contains a mix of residential, commercial, industrial and open space uses. According to a count of dwellings in 1978, the U.G.S.A. had 171 dwellings (Coos County Planning Department, County Land Use Inventory). As part of the revision of the size of the Bandon Urban Growth Area, this report revises the 171 figure down to 75 to more accurately reflect the base population that will affect growth within the UGA area during the planning period.

By multiplying the current household size for Bandon (2.22 persons/household; 1980 Census) by the number of dwellings (75), the revised U.G.S.A. population is estimated to be 165 persons. By further applying the 3% compound growth rate used in Alternative A, population growth in the U.G.S.A can be projected, as shown in Table 3.

#### Total Population Growth - City and Urban Growth Area

The combined total population projection for the City and U.G.A. are presented below. . it is

### TABLE 3 Combined Population Projection

Year	City	Urban Growth Area	<u>Total</u>
1980 1985 1990 1995 2000 TOTAL Net	2435 2822 3272 3793 4394 1959	165 (170, 175, 180, 186, 191) 191 (197, 203, 209, 215, 222) 222 (229, 236, 243, 250, 257) 257 (265, 273, 281, 290, 299) 299 134	2600 3013 3494 4050 4693 2093
Growth 1980-2000			

The projected net growth for the City of Bandon and the Urban Growth Study Area is 2093 persons (1959 in City plus 134 in U.G.S.A.).

Coordination of Urban Growth Area Projected Growth with Coos County Plan

The projection in Table 3 above shows a net growth of 134 persons for the U.G.A. Converted to dwelling units, this population represents about 60 units (134 persons + 2.22 persons/unit). As a part of the overall analysis of county housing needs, Coos County has "allocated: 80 dwelling units to the Bandon U.G.A. (see Coos County Draft Plan, Spring, 1980, pg. 0-24. Table 16). The smaller projection by the City is largely due to the U.G.A. revisions discussed above. The discrepancy between the City projection and County allocation is only 20 units and is not considered significant.

#### PROJECTED HOUSING AND LAND NEEDS

#### "Basic" Housing Needs

In order to convert the population projection made above into a projected need for housing, an average household size must be assumed. Census data show that Bandon has historically had a smaller household size than Coquille, Myrtle Point, and the County as a whole:

TABLE 3A

Household Size in Bandon and Coos County (Person/Household)

<u>Year</u>	Bandon	Coquille	Myrtle Point	Coos County
1970	2.63	2.83	2.81	2.92
1980	2.22	2.37	2.48	2.42

Source: 1980 Census, Final Population and Housing Unit Counts.

Bandon's smaller household size is primarily due to relatively a large number of single-person (retiree) households, and numerous "dwelling units" which are actually seasonally occupied rental homes. Statewide demographic trends toward a general reduction in family size and increase in single-person households may be expected to further reduce Bandon's average household size in the future. Projections for the unincorporated county population show an approximate 6% decrease in household size between 1980 and 1990, with the figure holding constant from 1990 to 2000 (Coos County Planning Department, Draft Coos County Comprehensive Plan, 1980, pg. Q-4). Assuming a reduction in household size of similar magnitude will occur in Bandon, the City's household size is projected to decrease from 2.22 to 2.09 by 1990, and remain constant through to the year 2000. The projected household size is used below to make a projection of "basic" because it does not include vacant units.

TABLE 4
"Basic" Housing Needs

<u>Year</u>	Projected Population	Projected Household Size	Projected  Dwelling Units
1980	2600	2.22	1171
1985	3013	2.15	1401
1990	3494	2.09	1672
1995	4050	2.09	1938
2000	4693	2.09	2246
Net Growth	2093		1075
1980-2000			

The above table shows a "basic" need for 1075 new dwelling units between 1980 and 2000.

# Extra Housing Provision to Allow for Vacant Units

In addition to the "basic" housing needs outlined previously, a certain extra provision must be made to maintain the vacancy rate at an acceptable level (1.6% for homes and 5.0% for rental units). These percentages of vacant homes and rental units are desirable in order to provide choice in the housing market place. The following two assumptions are used in the calculations of needed vacant units presented in Table 5.

 Current vacancy rates in Bandon are 5.5% for owned homes and 2.0% for rental units, as follows:

1038 D.U. - 960 households = 78 vacant units
78 vacant units = 1038 D.U. = 7.5% vacancy
7.5% vacancy X 73% of housing stock in ownership = 5.5% owned vacant units
and 2.0 rental vacant units

(Source: 1980 Census, Final Population and Housing Counts).

- A reduction in the current high vacancy rates for owned units will occur between 1980 and 1990, with a concurrent increase in the vacancy rate for rental units during the same period.
- The proportion of owned units and rental units will remain constant and nearly the same as recorded in the 1970 Census (73% owned and 27% rental, rounded to 70% and 30% respectively).

TABLE 5 Housing Needed to Maintain Vacancy Rate

<u>Date</u> 1980	Type of Units Owned Rental	Basic Total # of Units 819 352 1171	Vacancy Rate 5.5% 2.0%	# of Vacnat Units 45	Total Units Needed 864 359 1223
1985	Owned Rental Total	981 420 1401	3.5% 3.5%	34 15	1015 435 1450
1990	Owned Rental Total	1170 502 1672	1.6% 5.0%	19 25	1189 527 1716
1995	Owned Rental Total	1357 581 1938	1.6% 5.0%	22 · 29	1379 610 1939
2000 NET NEED	Owned Rental Total	1572 674 2246	1.6% 5.0%	25 34	1597 703 2305 1082

9

5.10-5

### PROJECTED HOUSING AND LAND NEEDS

#### "Basic" Housing Needs

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Source: 1980 Census, Final Population and Housing Unit Counts.

Bandon's smaller household size is primarily due to relatively a large number of single-person (retiree) households, and numerous "dwelling units" which are actually seasonally occupied rental homes. Statewide demographic trends toward a general reduction in family size and increase in single-person households may be expected to further reduce Bandon's average household size in the future. Projections for the unincorporated county population show an approximate 6% decrease in household size between 1980 and 1990, with the figure holding constant from 1990 to 2000 (Coos County Planning Department, Draft Coos County Comprehensive Plan, 1980, pg. Q-4). Assuming a reduction in household size of similar magnitude will occur in Bandon, the City's household size is projected to decrease from 2.22 to 2.09 by 1990, and remain constant through to the year 2000. The projected household size is used below to make a projection of "basic" because it does not include vacant units.

TABLE 4

#### "Basic" Housing Needs

Year	Projected Population	Projected Household Size	Projected Owelling Units
1980 1985 1990 1995 2000 Net Growth 1980-2000	2600 3013 3494 4050 4693 2093	2.22 2.15 2.09 2.09 2.09	1171 1401 1672 1938 2246 1075

The above table shows a "basic" need for 1075 new dwelling units between 1980 and 2000.

# Extra Housing Provision to Allow for Vacant Units

In addition to the "basic" housing needs outlined previously, a certain extra provision must be made to maintain the vacancy rate at an acceptable level (1.6% for homes and 5.0% for rental units). These percentages of vacant homes and rental units are desirable in order to provide choice in the housing market place. The following two assumptions are used in the calculations of needed vacant units presented in Table 5.

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(Source: 1980 Census, Final Population and Housing Counts).

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1990	Owned Rental Total	1170 502 1672	1.6% 5.0%	19 25	1189 527 1716
1995	Owned Rental Total	1357 581 1938	1.6% 5.0%	22 29	1379 610 1989
2000 NET NEED	Owned Rental Total	1572 674 2246	1.6% 5.0%	. 25 34	1597 708 2305 1082

8

Thus the projected total number of new dwelling units is 1082 (1223 in 1980 minus 2305 in 2000) to accommodate the City's population as projected to the year 2000.

#### Housing Projections By Type

According to the Coos County Assessor's Office, the mix of housing types in Bandon City as of May,  $1981~{\rm was}$ :

Table SA

Туре	Units	Percent
Single-Family Multi-Family Mobile Homes	829 164 _ 89	76.6 15.2 8.2
	1082	100.0

Source: Personal communication, Coos County Assessor's Office

The following projection of housing needs by type (Table 6) is made on four assumptions:

- Single-Family dwellings will continue to decrease in proportion to the rest of the housing stock due to increased cost, but will still be the predominant form of housing.
- Attached forms of housing will increase in proportion to single-family-dwellings due to the economic savings in common wall structures. Increases in multi-family housing have occurred in other cities in Coos County in recent years.
- Mobile homes and multi-family dwellings will become a more acceptable housing alternative for low to moderate income people.
- 4. The housing mix in the year 2000 will be:

Single-Family 60% Multi-Family 30% Mobile Homes 10%

The percentages of multi-family and mobile homes have been chosen by the City as reasonable projections of current trends and as a mechanism for providing affordable housing. In theory, if 40% of the available residential lands in the City allow multi-family and mobile homes (outright or conditionally), adequate opportunity for affordable housing will be available to people with low to moderate incomes. In 1970, about 40% of the families in Bandon had annual incomes less than \$6000 (Plan, pg. III-25).

TABLE 6
Projected Housing Units by Type

tal 1	mber Pero	ent Units by	17-
	223		
	110 g		
		00	
7		J. ,	
1	145 - 9	23	
		33	
		86	
	LJ		
1	./2 10	27	
tal 19	189		
	0.5		
	30		
•	10	27	
al 23	05		
13	83 ₆₀	100	
	92 30		
2	30 10	31	
	tal 10 10 11 11 11 11 11 11 11 11 11 11 11	183 15 110 9  tal 1450 1029 70 276 20 145 9  tal 1716 1115 65 429 25 172 10  tal 1989 1193 60 597 30 199 10  tal 2305 1383 60 692 30	183

# Commercial and Industrial Land Needs

A very rough estimate of the City's commercial and industrial land needs can be calculated by extrapolating existing conditions to accommodate the projection for the year 2000. Such a "straight-line" estimate is made below.

		TABL	E 7		
Industrial	1980 Population Bandon City 2435	Acres in use 49	Persons/ Acre	1980~2000	Additional Land
Commercial	2435	80	49.7 30.4	1959 1959	39.4 64.4

1

### Buildable Residential Lands in the City

Within the city limits, the following acreages (by zone district) are considered to be both suitable and available for future residential development:

#### TABLE 8

<u>Zone</u>	<u>Area</u>	Area (Acres)
R	West of 101	46.3
R	East of 101	17.3
	South of 42S	
R	North of 42S	43.5
MHR	West of Ferry Creek	36.5
MHR	South of Ferry Creek	5.7
MHR	North of 42\$	3.2
CD-2	Jetty	8.1
CD-1	Beach Loop Road	142.3
		302.9 Acres

### Adequacy of Land in the City to Accommodate Projected Housing

To determine the adequacy of the existing buildable lands to meet the projected housing need, assumptions must be made as to the future density of dwelling units (D.U.'s) within the City. The 1978 Coos County Land Use Survey found the area of residentially zoned lands in Bandon to be 709 acres (built lands plus vacant lands). Using this area and the current D.U. count of 1094, a gross residential density of 1.54 D.U./acre is derived. The City Council and Planning Commission have expressed a desire to maintain the existing low-density residential environment, as this is felt to be part of the City's unique character and a feature the citizens have expressed andesire to retain. For the purposes of projection the following assumtions are made:

- 1. Residential development in the two Controlled Development zones will occur at an average gross density of 2.25 Dwelling Units/Acre (D.U./Ac). 1 This density is expected to result from:
  - a. the continuation of the present pattern of very large lots 14,500+ sq. ft.) and irregular infilling along the bluff.
  - b. the high costs of flood/storm proofing required for new homes in the Jetty area which will serve to inhibit development.

Residential densities in these areas are currently less than two D.U./ Ac. (Plan. Figure IV-2).

1. Gross density refers to the inclusion of rights of way and easements, which typically occupy 25% of a given residential area.

14

- 2. Residential development in the residential zones will occur at an average gross density of 3.0 D.U./Ac. This density is based upon an expected increase in the City's overall density that will accompany in-filling, together with an "offsetting" continuation of the existing pattern of a relatively low-density residential environment.
- 3. Development in the Mobile Home Residential zone will occur at an average gross density of 4 D.U./Ac. This density is based upon the recognition that mobile home owners will, in general, seek small lots and that mobile home parks will typically achieve densities in excess of 5 D.U./Ac.
- 4. Future development in the CD-1 and CD-2 zones will be 90% residential and 10% commercial/other. This 10% allotment is made because both Controlled Development zones allow some commercial uses conditionally.

Using density assumptions stated above, the number of dwelling units accommodated by buildable residential lands within the City is computed as follows:

#### TABLE 9

<u>Zone</u>	Acres	D.U./Acre	Dwelling Units
Residential Mobile Home Residential Controlled Development	107.1 45.4 135.4 ¹	3.0 4.0 2.25	321 182 305 569

Thus, 808 dwelling units can be accommodated within the City. Reesed housing has been projected to be 1082 dwelling units, thus buildable lands are not adequate to accommodate projected housing needs. Buildable lass outside the City limits is needed to accommodate the projected housing needs.

### Accommodation of Projected Housing Types

The projection of housing units by type showed a need for 453 single-family homes, 509 multi-family units, and 120 mobile homes. Article 3 cf the Bandon Zoning Ordinance permits the various housing types in City's "residential" zones as shown in the matrix below:

	•	TABLE 10		
Uses/Zones	<u>R</u>	MHR	CD-I	<u>CD-2</u>
Single-Family Duplex Mobile Home Multi-Family	P P N C	P P P C	P C N P	P P
Mobile Home Park	N	P	N	N

(P=Permitted, C=Conditional, N=Not Permited)

^{1. 10%} of buildable lands are subtracted for commercial/other uses and thus not considered available for residential use.

From Table 10, it can be seen that single-family and multi-family units (including duplexs) are allowed either outright or conditionally in all four zones. It is apparent, then, that the projected need for single-family and multi-family units will be accommodated in the City on Urban Growth Area lands.

MHR buildable land X assumed average density = units potentially accommodated

45.4 acres X 4.0 units/acre = 182 units

This approximation shows that the City's present buildable land in the MHR zone will accommodate the project need for 120 mobile homes between 1980 and 2000. This assumes that no more than 15.4 acres (33%) of the MHR land will develop with uses other than mobile homes.

# Buildable Commercial Land in the City

Buildable land within the City's commercial zones has been inventoried and equals 36 acres. Approximately 13 of the 36 acres are located along U.S. 101 and in the "Old Town". These areas have historically been the focus of commerce in Bandon. Today, Bandon's "Old Town" is primarily oriented towards tourism and the City's waterfront heritage, while the U.S. 101 area serves more of the City's daily commercial activity. Another 10 acres of commercially zoned land lies east of U.S. 101 in an area of mixed commercial/residential uses. The available sites are somewhat scattered and without an arterial to carry traffic; these sites are probably better suited to commercial activity other than high volume retail sales. The remaining 13 acres is located adjacent to U.S. 101 at the junction of Seabird Lane.

In addition to the acreage in commercial zones, another 15 acres may be considered available in the Controlled Development (CD) zones of the Jetty and Beach Loop Road areas. The City estimates that 10% of the buildable land in the CD zones will go to commercial uses. Such uses will likely be tourism-related.

The total buildable commercial land equals 51 acres. This is 13.4 acres short of the projected need for 64.4 acres, which is based upon "straight-line" estimates.

# Buildable Industrial Land in the City

The buildable industrial land in Bandon (exclusive of potential industrial sites in the estuary) is quite limited at 6.4 acres. This area is split between two parcels located along Riverside Drive (2.4 acres) and south of Bandon Cheese Factory (4.0 acres). These sites have some limitations beyond size. Riverside Drive site is an elongated parcel (150 ft. X 700 ft.) and is broken into several ownerships. The other parcel is near some residences and a church

An additional 13.4 acres of waterfront industrial land may be considered as potentially available. Two sites in the estuary are proposed for Development" designations in the <u>Draft Coquille River Estuary Management Plan</u>.

continent upon adoption of "Goal 16 Exceptions" being prepared. These two sites are located north of Moore Mill and at the mouth of Ferry Creek.

The total buildable industrial land equals 19.8 acres (6.4 acres zoned and available plus 13.4 acres potentially available in the estuary). This is "straight-line" estimates.

# PROPOSED BANDON URBAN GROWTH AREA

Based upon the comparison of the projected land needs and buildable land within the City, Bandon will need additional urban land to accommodate growth to the year 2000. The establishment of an Urban Growth Area (UGA) will serve to channel and accommodate projected growth and provide for an orderly and efficient transition from rural to urban land use. By using the "seven factors" of LCDC Goal 14 (Urbanization), the City has established Urban Growth Boundary (UGB) (see Map B12). The proposed land use designations in the UGA

### Residential Land

Buildable residential lands within the City have been shown to be insufficient to accommodate projected housing needs. Buildable residential lands in the UGA are needed to accommodate approximately 274 dwelling units (1,082 DU -

The City has selected two areas to accommodate future residential growth outside the present City limits. These areas are: 1) the Sunset City addition, a legally established subdivision which is the southern extension of the Beach Loop Road "arm" of the City; and 2) the area adjacent to Seabird Lane. The number of dwelling units potentially accommodated in these areas

#### TABLE 11

formal Atlanta	Buildable Land (AC) ¹	'χ	Gross Density	=	Dwelling Units
Sunset City Addition Seabird Lane Area	33 62		3.0 3.0		99 186 285

### Commercial Land

Commercial land needed in the U.G.A. has been determined to equal 13.4 acres, based on "straight-line" estimates. As has been discussed under Residential lands above, the City estimates that 10% of all buildable land in the Controlled Development (CD) zones will be occupied by commercial uses. About 106 acres have been proposed for CD zoning in the U.G.A., thus, 10.6 acres (10%) of this land expected to go to commercial uses. Subtracting the 10.6 acres from 13.4 acres "needed" leaves only 2.8 acres needed elsewhere in the

The City proposes to add one other commercial area to its U.G.A. This is the stretch of U.S. 101 running from the current City limits south to Edna St. west of 101 and Tacoma St. east of 101. This area is already partially developed with small businesses and professional offices. The City recognizes

the potential of this area for future commercial development (particularly retail sales and tourism-related businesses) and as a "gateway" corridor into the main city. Bandon is concerned with vehicle and pedestrian safety along this corridor and would like to manage commercial growth to minimize such problems. The area proposed includes 21 acres of buildable land, with an additional 19 acres of unbuildable (already occupied) land.

The total proposed UGA land for commercial use is 50.6 acres (10.6 acres within the CD zone, 21 acres adjacent to U.S. 101, 19 acres unavailable

### Industrial Land

Industrial land needed in the UGA has been determined to equal 19.6 acres based on "straight-line" estimates. As noted earlier, there are three types of industrial land needed in Bandon (see Commercial and Industrial Land Needs). The first two types noted (waterfront land and small parcels for light industry) can probably be satisfied by potentially available parcels in the estuary and existing parcels in the City. The third type of industrial land is currently not available in the City and needs to be established in the UGA. The City has selected the area south of Doyal Mill to fulfill this need. The locational characteristics of this site are favorable for industrial development and are as follows:

- short distance to U.S. 101
- adjacent industrial uses
- flat, vacant land
- no flood hazard
- sewer, water, electricity are adjacent to site
- single ownership
- buildable land: 36 acres

# Public Facilities Planning

Map Bll shows city proposals for water and sewer system extensions. Currently sewer has been extended along Beach Loop Road to the edge of the Urban Growth Boundary. The City is currently engineering a water improvement district to construct a 12" water line along the west of highway 101 to Seabird Drive and west to Beach Loop to provide adequate water service along Beach Loop and Urban Growth Area. In order to encourage the most economical provision of service, annexation to the city is normally a condition of providing sewer and water. Public facilities are recognized in the City's Comprehensive Plan as the key to ensuring an orderly and economic

The City's plan for water development calls for the improvement and expansion of the treatment and distribution system over the next 10 years. Towards the end of this ten year period, water services are expected to be provided south of the city limits in the following areas: along Beach Loop Road, Seabird Drive, Old Airport Road, Rosa Road, and along Highway 101. Seabird Drive will serve as a cross line between Beach Loop Road and Highway 101, improving water pressure and opening up adjacent lands to development. Prospective developers have the option of paying for water extensions from existing main distributor lines. Improvements to treatment and storage facilities currently being designed and financed are expected to provide

^{1.} Figures shown include 10% of total buildable land subtracted out for commercial/other uses in the CD zone.

Proposed improvements to the sewer system will generally occur first within the city limits and then in the same areas within the Urban Growth Area as the water system (Beach Loop Road, Seabird Drive, Highway 101). Sewer extensions are considered long term projects to be undertaken as population density increases and sufficient demandis realized for sewer service. Improvements will be financed by assessments on individual properties or directly by developers. Normally, annexation to the city will accompany such extensions. A pressure sewer line with a pumping station has been constructed along Beach Loop Road south to the city limits. This enables both the southern area of the Urban Growth Area along Beach Loop Road as well as areas along Seabird Drive to be developed. If all urban areas obtain sewer services and population forecasts are correct, the sewage treatment plant may reach capacity before the year 2000.

Roads, like sewer and water services are usually developed as need arises. Their construction and improvement are normally financed by special assessments on properties or directly by developers. The recent construction of Seabird Lane opens up a large area in the Urban Growth Area for development.

#### Resource Land Considerations

The proposed Urban Growth Area contains approximately 60 acres of land with "agricultural" soils (60 acres Class III). An additional 45 acres of land has Class VII with Blacklock soils, the type commonly used for cranberry bogs. None of the areas selected are currently being used for commercial agriculture, largely due to intermingled Blacklock soils (Class VIIW), lack of water supply, and thick brush or shorepine cover. All of these limitations would place a new dairy, ranch, or cranberry farm at a comparative disadvantage with those in the Coquille Valley and adjacent areas. The USA was drawn to specifically exclude active cranberry bogs which lie to the east of the City limits and Seabird Lane area, to reduce potential conflicts between urbanization and cranberry production.

Forest Site Class maps published by the Department of Revenue indicate that the land in the Urban Growth Area has not forest site rating (Oregon Department of Revenue Forest Site Class Maps). This does not imply that it has no forest capability whatever, but simply that there is no substantial forest cover. Therefore, the standing timber and forest site capability have not been appraised for tax purposes. It is estimated that the area has very low potential forest productivity. The potential dominant forest species is shorepine, and it may be estimated from nearby areas that the site class is State Department FE or FF (equivalent to cubic foot site class 4 and 5). Judging by the low potential for forest production, the Urban Growth Area is correctly located. The most obvious alternative area is to the east of the City, and forest productivity generally increases in this direction.

20

#### SUMMARY

The proposed Urban Growth Area and land use designations are shown in Map BiZ and summarized in the following table:

#### TABLE 13

### PROPOSED URBAN GROWTH AREA

Designation	Area (Acres)
Controlled Development (Residential Use) Controlled Development (Commercial Use) Commercial Industrial	95.0 10.6 21.0 36.0
TOTAL (Buildable Land)	162.6
Non-Buildable (Unsuitable/Unavailable)	_71.8
TOTAL Urban Growth Area	234.4

### <u>Findings</u>

The following findings summarize the City's projected  $\underline{\mathsf{need}}$  for land within the Urban Growth Boundary:

- The combined City and Urban Growth Boundary (UGB) population will increase by 2,093 persons between 1980 and 2000.
- The City will need 1,082 additional dwelling units (453 Single-Family, 509 Multi-Family, and 120 Mobile Homes) to accommodate the projected populations.
- Assuming a range of densities for different zones, buildable residential lands within the City are adequate to accommodate 808 dwelling units. Buildable lands are needed to accommodate 274 dwelling units in an Urban Growth Area.

The proposed UGA includes 95 acres of buildable land which is proposed for residential use under eventual "Controlled Development" zoning. This land can accommodate 285 dwelling units at gross densities of 3.0 dwelling units/acre.

4. "Straight-Line" projections show a need for 64.4 acres of additional commercial land. Assuming 10% of the available buildable land in the Controlled Development zones are developed for commercial use, buildable land within the City is available to accommodate 51.0 acres of the projected need for commercial land leaving a shortfall of 13.4 acres needed in the UGA. The proposed UGA includes 31.6 acres of buildable land which is proposed for commercial use.

5. "Straight-Line" projections show a need for 39.4 acres of additional industrial land. Approximately 6.4 acres (on two parcels) are available within the City. The suitability of these areas is limited by parcel shape in one case and adjacent residential and public uses in the other. Approximately 13.4 acres of industrial land for water-dependent uses is potentially available, contingent upon final plan designations and "Goal 16 Exceptions" adoption in the Coquille River Estuary Plan. The proposed UGA includes 36 acres of buildable land which is proposed for industrial use.

The following findings are presented to justify the <u>location</u> of the Urban Growth Boundary.

- 6. Quantitative assessments of Bandon's need for housing are presented in findings (1) -(3). From the standpoint of a qualitative assessment of the City's need for housing and livability, the selected residential urban growth areas promote the locational characteristics which are identified with Bandon and make it a unique and desirable place to live. The coastal landscape, the sights and sounds of the ocean, and even the extreme weather are all locational amenties considered "needed" by the City to promote and enhance livability in its future residential areas.
- 7. Another factor contributing to the selection of the Sunset City Addition for future residential urban growth is the fact the area is already substantially "committed" to residential uses. As noted in the Buildable Lands Report (see Table 11) this legally established subdivision has about 33 acres of suitable and available land. The remainder of the subdivision includes unbuildable land along the beach (10 acres), the Beach Loop Road right-of-way (5 acres) and 19 lots which are improved with structures and road access (12 acres). The gross buildable residential density of the subdivision is 2.3 (33 buildable acres plus 12 improved acres: 19 dwelling units). According to the proceedure for identifying committed areas used in the Draft Coos County Comprehensive Plan (1980, sec. 4.3.2), such a density would be defined as boarderline between "physically developed"
- 8. The area selected to accommodate commercial needs and provide commercial employment opportunities is greater in land area than the quantitive "need" estimated in finding (4) above. The City recognizes that a "straight-line" estimation of needed commercial lands must be augmented by consideration of where commercial employment opportunities exist, the types of commercial land needed, and existing traffic patterns. The commercial area along U.S. 101 has been selected to accommodate estimated needs and tap the potential to attract business oriented to both local and tourist traffic along the arterial. Existing commercial uses and traffic patterns serve to "commit" the area to future urban-level commerce. Further, the location of this land dictates that it function as a planned "gateway" corridor to the City.
- The area selected to accommodate industrial needs and provide industrial employment opportunities is greater in land area than the

quantitative "need" estimated in finding (5) above. The inclusion of the proposed land south of Doyal Mill is based upon the recognition that "straight-line" estimates of needed industrial land must be abgmented with the consideration of "locational characteristics" of available sites adjacent to the City. The site selected south of Doyal industrial development or expanding existing uses (see discussion on industrial land).

10. Plans for additions to the city water system include a new 12" line that will run parallel to U.S. 101 and Seabird Drive. This line is needed presently to increase pressure in the Beach Loop line and guarantee adequate fire protection to the homes in that area. The extension will also serve the water needs of future residential development in the Seabird Drive area, and provide water pressure for serving the Sunset City Addition. The future placement of this water line is another key factor contributing to the selection of the Seabird and Sunset City Addition areas for future urban growth. Water improvements will be facilitated through the creation of a water improvement district. The City finds these plans to be an orderly and economic public facility provision due to the multiple purposes (existing and future needs) being served. From an engineering standpoint, the improved loop system will significantly benefit pressure distribution in the southern part of the City.

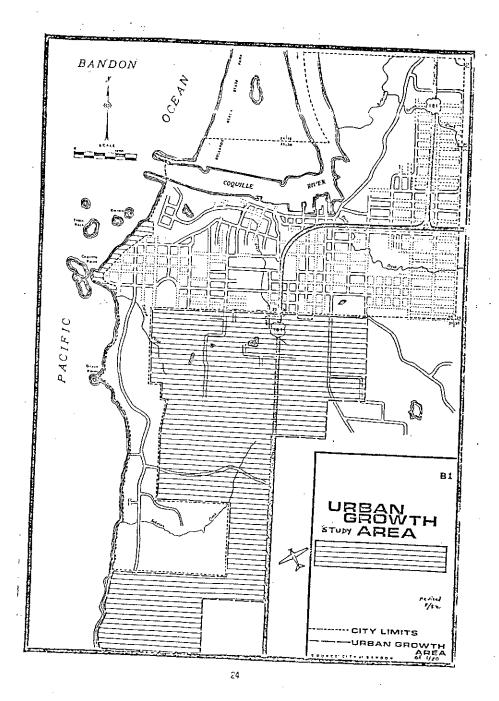
Plans for extension of sewerage facilities are only preliminary at present. Existing lines extend to the edge of all areas within the proposed UGB. Sewerage facilities planning by H.G.E., Inc. projects the sewer treatment plant to be adequate to 1996 providing infiltration/inflow are substantially reduced.

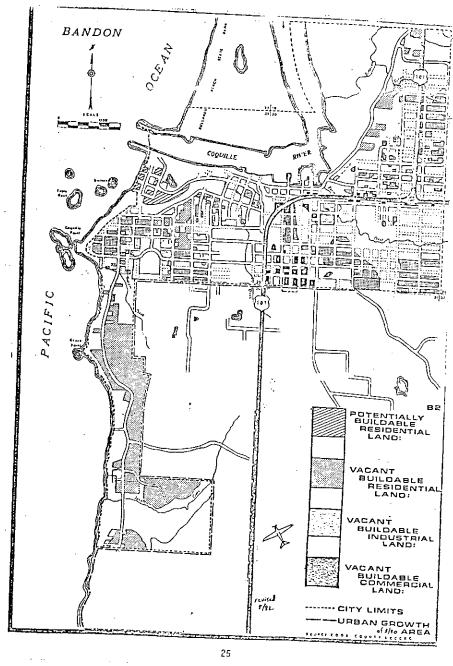
The proposed Urban Growth Area will utilize existing arterials (U.S. 101) and collector roads (Seabird Lane, Beach Loop South). Traffic on these roads will have minimal negative affect on existing neighborhoods. Road widths and street improvement requirements have been coordinated with Coos County.

- 11. Environmental impacts resulting from future development along the Bandon Bluff are expected to be minimized through the setback standards and geologic hazard review provisions of the Controlled Development Zone. Adverse recreational impacts are not expected due to the numerous public beach access points found within the City and the UGA. Social and economic impacts are expected to be beneficial in that the "livability" of the proposed residential areas is viewed as high and the development potential of the commercial/industrial areas is also viewed favorably.
- 12. The proposed UGA contains approximately 60 acres of Soil Conservation Service (SCS) Class III soils. An additional 45 acres of land has Class VIIw blacklock soils, the type commonly used for cranberry bogs. There is considerable intertwining of these two soil types in some areas. None of the areasselected for future Urban Growth are currently in use for commercial agriculture, largely due to intertwined soil types, lack of water, and thick brush or shorepine cover. The UGA has been located specifically to avoid land use-related conflicts with commercial cranberry bogs to the northeast of the City.

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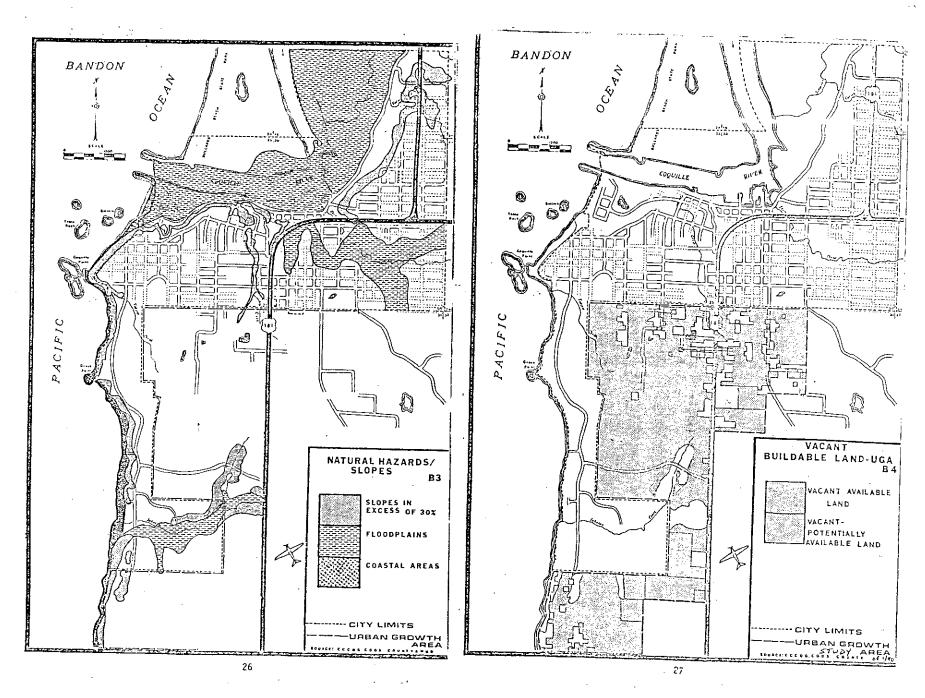




Volume I Part 2 1068

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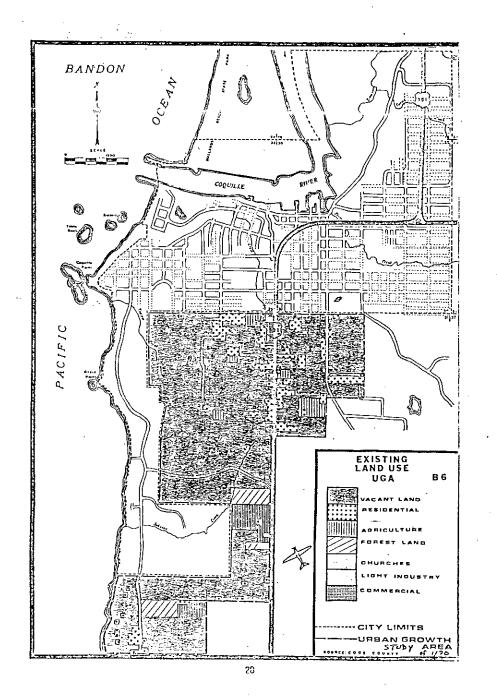
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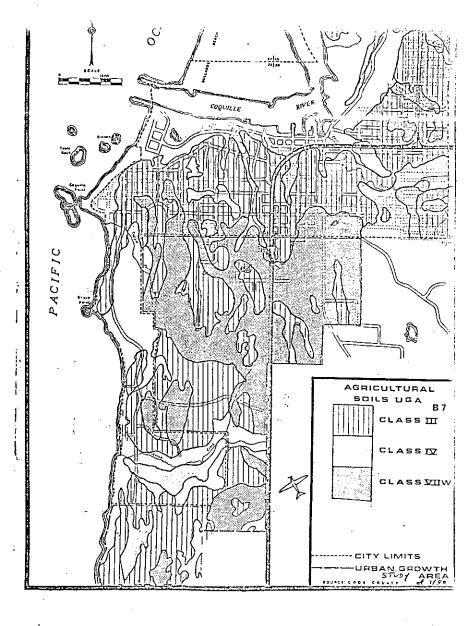


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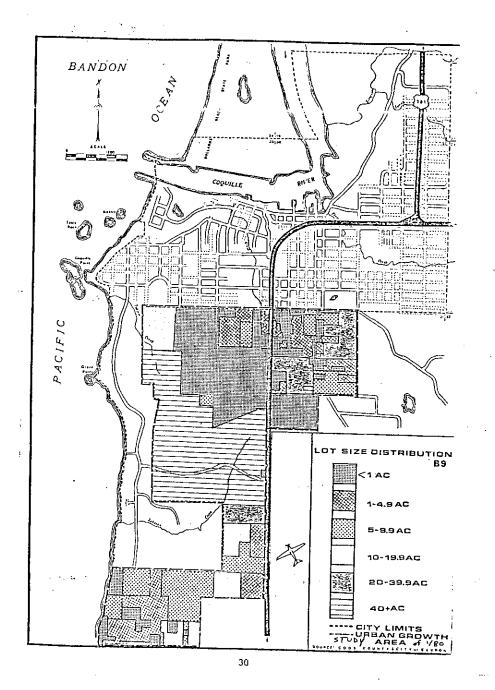
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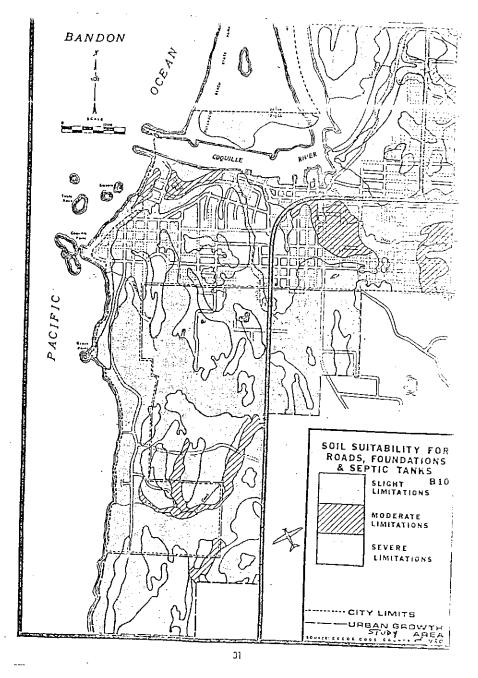
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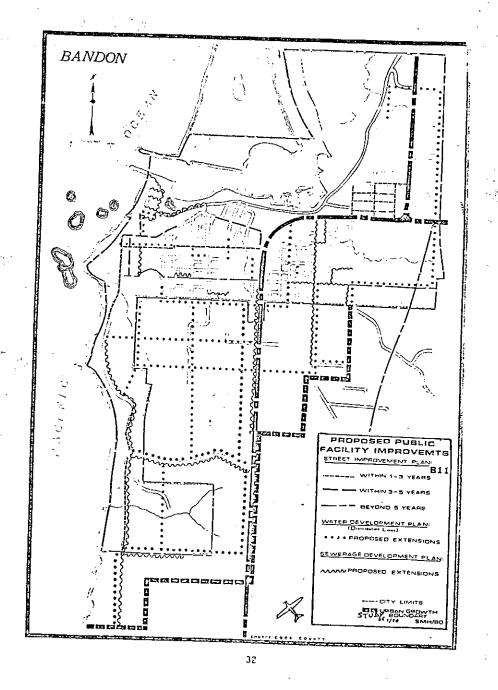
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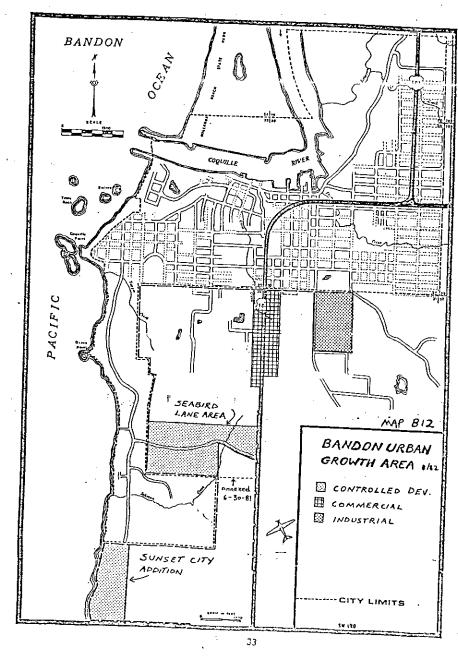




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Volume I Part 2 1074





5.10-17

Volume I Part 2 1077

# URBAN GROWTH AREA, FUTURE GROWTH AREA, AND SPHERE OF INFLUENCE MANAGEMENT AGREEMENT

The terms of this agreement are applicable to the City's urban growth area, future growth area, and its sphere of influence area. The urban growth area is defined as that area of land extending from the City's corporate limits to the City's urban growth boundary as referenced and mapped in Attachment A, incorporated herein by reference and in both the City's and County's Comprehensive Plans. The future growth area is defined as that area of land extending from the City's corporate limits of the City's urban growth boundary and sphere of influence boundary as referenced and mapped in Attachment A. The sphere of influence is defined as that area of land extending from the City's urban growth boundary to the City's within the sphere of influence boundary to the City's within the sphere of influence boundary as referenced and mapped in the Attachments A+B, incorporated herein by reference.

This Agreement is made pursuant to ORS Chapter 190 and 197 and the Oregon State Planning Goals for the purposes of facilitating the orderly transition from rural to urban land uses within the City's urban growth area, and coordinating rural growth in the future growth area and sphere of influence.

Words and phrases used in this Agreement shall be construed in accordance with ORS Chapters 92, 197, 215 and 227 and applicable Oregon State Planning Goals unless otherwise specified. In the event two or more definitions are provided for a single word or phrase, the most restrictive definition shall be used in construing this Agreement.

### I. Introductory Information

- A. This Agreement is the culmination of a series of actions intended, in part, to facilitate the orderly and efficient transition from rural to urban land uses within the urban growth area. Such actions include the respective preparation of a City Comprehensive Plan, a County Comprehensive Plan, and the cooperative establishment of an urban growth area, future growth area, and sphere of influence area (see Attachments A and B).
- B. In the urban growth area, future growth area and sphere of influence area the County shall apply the zoning and land development requirements which most closely conform to the purpose and intent of the agreed upon types of future land-use identified by the coordinated comprehnsive plans of the two jurisdictions. For purposes of this agreement, plans are coordinated when they are generally compatible or similar in the types of land-uses they permit within geographically designated areas.

# II. General Comprehensive Plan Provisions

- A. The County shall retain responsibility for land use decisions and actions affecting the City's urban growth area, future growth area, and sphere of influence area.
- 8. The City's urban growth area has been identified as urbanizable and is considered to be available over time for urban expansion. The City's future growth area has been identified as not urbanizable during the planning period, but available for development consistent with the County Comprehensive Plan. The City's sphere of influence area has also been identified as not urbanizable during the planning period, and is not considered to be available during the planning

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period for urban type expansion. Two areas of special concern in the sphere of influence are the municipal watershed and the Bandon State Airport. The watershed area must remain rural. The airport is an exception, however. It should be considered as an appropriate site for industrial uses that are air transport oriented.

- C. The application of County Comprehensive Plan land-use categories to the urban growth area shall be a joint effort of the interested citizens and planning commissions of both jurisdiction. The resulting proposal will be forwarded to the respective elected officials for formal review. The City Council and the County Board of Commissioners shall agree upon the County Comprehensive Plan land-use categories which are most compatible with those proposed by the City and the County for the total of the urban growth area. This shall constitute adequate coordination of the respective Comprehensive Plans and the Board of Commissioners shall proceed with formal adoption of the agreed upon land-use categories.
- D. In order to promote consistency between the City's planning effort and the County's land-use decisions and actions affecting the urban growth area, land-use regulation shall be governed by those County zoning designations that correspond with the coordignited County Comprehensive Plan land-use categories.
- E. The County shall coordinate with the City on the land-use designations applied within the future growth area by providing notice to the City of any hearings to adopt or amend such designations.
- F. It is the policy of the City and the County to maintain a rapid exchange of information relating to their respective land-use decisions which affect the growth of the City's urban growth area, future growth area, and sphere of influence area.

# III. Referred Applications/Situations

- A. Early notification. The County Planning Department shall refereach request affecting the City's urban growth area and sphere of influence area to the City within ten (10) working days of the date the request is filed with the County Planning Department. This early warning will serve to notify the City that a request for a land use action has been initiated and that a County Planning Department staff report will be forthcoming. The procedures specified in Part III of this agreement shall also apply to any County planning action which may be taken by the County Borad of Commissioners which affect the City's Urban Growth area and sphere of influence area including requests for public projects or creation of special districts in these areas.
- B. County Staff Report. The County Planning Department staff report will be forwarded to the City Recorder for the City's review and comment. It shall be prepared and forwarded to the City so as to arrive not later than ten (10) days prior to the scheduled date of the County Public Hearing.
- C. City Review. The City shall review the request and submit a written recommendation to the County Planning Department prior to the scheduled date of the County Public Hearing. The City reserves the right to assign the requests to its various departments and commissions for review.
- D. Extension of Review Period. The established response time will be extended if the City requests an extension and said extension does not exceed the time required by statute or County Ordinance for holding a public hearing thereon. In the event time is

extended, the County Public Hearing on the affected application shall be tabled and continued to the date of the next scheduled County Public Hearing.

- E. Decision Authority. The County shall retain final decision making responsibility for all land use actions affecting the City's urban growth area and sphere of influence area. Such decisions shall be made only after the receipt and consideration of recommendations from the City, provided such recommendations are available to the County at the time of public hearing thereon.
- F. Special Considerations. The City is especially interested in landuse decisions concerning the municipal watershed and Bandon State
  Airport, thus the procedures outlined herein are equally applicable
  to the urban growth area, future growth area and sphere of influence
  area. The City upon receiving any request for planning action
  shall notify the County Planning Department of planning proposals
  for the Urban Growth Area in the manner set out in Part III of
  this agreement.

### IV. <u>City Services</u>

The current policy of the City is that sewer and water services will not be extended outside the City Limits. As growth occurs, the City may extend services, at the discretion of the City Council, in accordance with Oregon Revised Statutes and City Resolutions, ordinances and policies, to any contiguous site located within the City's urban growth area at the affected property owner's request and expense.

### V. Annexation

Annexation of sites within the City's urban growth area shall be in accordance with relevant annexation procedures contained in the Oregon

Revised Statues, Oregon case law, and any City Ordinances. Only areas contiguous to the City may be annexed. In the event of annexations by contract, city land development ordinances shall apply and be administered by the City.

### VI. Roads

The County and the City shall cooperatively develop an implementation policy regarding streets and roads within the City's urban growth area and future growth area. This may include modification of the County's road standards and development requirements for those streets and roads within the urban growth area and future growth area in order to match the City's street standards.

### VII. Appeals

- A. Since the County retains responsibility for land use decisions and actions affecting the urban growth area, future growth area, and sphere of influence area, appeals for such decisions and actions shall be inaccordance with the appeals process specified in the County Zoning or Land Development Ordinances.
  - B. In the event that a land-use decision is made that is contrary to the City's comment and recommendation as provided for in Section III, of this Agreement, the City shall have standing to appeal as provided in Subsection A, of this Section.

# VIII. Comprehensive Plan and Implementation Measure Review and Amendment

A. The Urban Growth Boundary and the tand Use Plan for the Urban Growth Area, Future Growth Area, Sphere of Influence, the Comprehensive Plans of the City and the County and their respective implementing Ordinances as well as this agreement shall be reviewed as either body deems necessary but not less than the review schedules established in the City and County Comprehensive Plans.

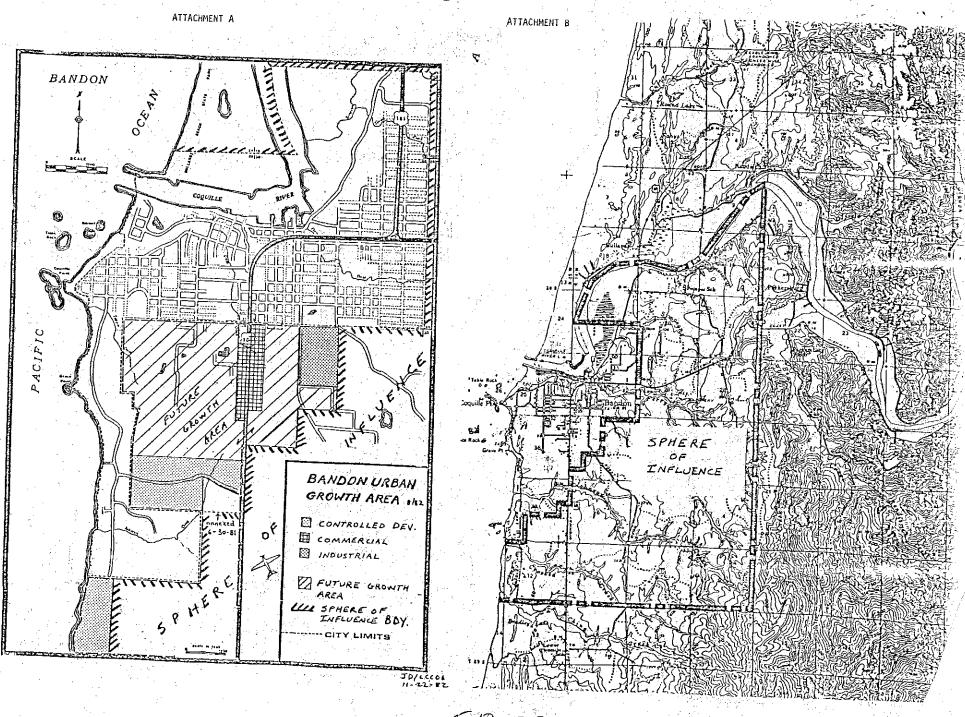
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- B. Amendments of those matters specified in paragraph A shall be in the following manner:
  - Cither the City or the County may initiate an amendment and the jurisdiction initiating the amendment shall forward the proposed amendment along with supporting documentation to the other jurisdiction for review and consideration.
  - If the City and County do not concur on the proposed amendment, a joint meeting or meetings will be convened to further consider the change.
  - 3. If a mutual agreement is reached on the proposed amendment, both the City and the County shall formally amend their respective Comprehensive Plans to reflect the agreed upon change.
  - 4. No proposed amendment shall be adopted without concurrence by both the City and the County except as set forth in subparagraph 5 of this section.
  - In the event that no mutual agreement can be reached in the procedures outlined herein each party retains the right to appeal to the Land Use Hearings Board or seek additional remedy.

# IX. Implementation of Zoning

Upon the execution of this amendment by the City and the County, the County will immediately initiate the appropriate rezone procedures to implement the zoning designations for the Urban Growth Area which shall conform with the mutually agreed upon land use designations.

THESE AMENDMENTS	are effective		y of, 1980.
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ity Recorder			•
		COOS COUNTY	BOARD OF COMMISSIONERS:
		Chairman	
		Commissione	r
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Volume I Part 2 1086

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Volume I Part 2 1087