

Port Orford (POT)

INTRODUCTION/SUMMARY

PORT ORFORD INTERIM USE PLAN

Section 1. The Port Orford Area District

This plan recognizes the efforts of citizens in Port Orford to bring together information about the community and to organize it as a guide for the future of the city.

During this time, it is hoped that the citizens will be able to do much to help themselves, to the residents and visitors, and to the future of the city.

Section 2. The Port Orford Area District

The Port Orford Area District is a community that is

located in the Port Orford Area District.

The Port Orford Area District is

Section 3. The Port Orford Area District

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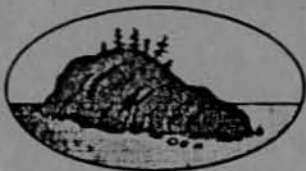
located in the Port Orford Area District.

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City of Port Orford

**INTRODUCTION/
SUMMARY**

INTRODUCTION/SUMMARY

PORT ORFORD COMPREHENSIVE PLAN

Part A. The Facts About Port Orford

This plan represents the efforts of Citizens in Port Orford to bring together information about the community that can be used as a guide for the future of the city.

During this long process, many facts about the area were found to be unique or very beneficial to the residents and visitors. Some of these findings are listed below and are further detailed in the full plan.

1. In the northwest part of the city is Garrison Lake, which is a major fresh water lake in Curry County. Public access is provided and the lake is well stocked with fish.
2. The Cape Blanco State Airport, located several miles north of the city, has the capacity to handle large airplanes. This airport is presently serving mostly private flights, but anyone is able to use it. Community efforts are supporting improvements for the facilities to increase the overall service.
3. The Port of Port Orford is the only open ocean harbor located on the Oregon Coast which does not have a bar crossing. The location is near excellent fishing grounds and efforts to further improve Port facilities and the Harbor are underway.
4. The city Parks are located at 14th and Arizona Street, and at Battle Rock on the southwest side of U.S. 101 at Deady Street. In addition to this, many other recreational opportunities are available to residents and visitors alike.

5. Visitors will find clean lodging, fully equipped overnight trailer courts and modern trailer waste disposal equipment available for their use while enjoying the opportunities in the area.
6. Business in the city provides for all basic shopper needs and a variety of arts and crafts shops offer local curios and gifts handcrafted from local forest and sea resources.
7. City services, such as water and sewer, are available in most of the city to accommodate an increased population.
8. The area around Port Orford feature excellent hunting and fishing opportunities. The Elk and Sixes Rivers and the nearby forest attract sportsmen from throughout the Northwest who arrive by car or plane.

These facts, as well as many other kinds of information dealing with the area's geology, geography, natural resources, and population are detailed in the plan inventories. This information was used as a basis for the comprehensive plan.

Part B. The Port Orford Comprehensive Plan

After completing the inventory of existing information, the plan then develops directions or goals that the city should use as a guide for the future. These efforts become the Comprehensive Plan. The plan policies and maps are intended as a general guide to the development of the area. The Comprehensive Plan is not designed to serve the function of a zoning ordinance, to change the zoning of land, nor make any existing use non-conforming.

With the adoption of the Port Orford Comprehensive Plan, the zoning ordinance should be modified to best reflect the intent of the plan and to provide the more specific standards necessary to effect implementation. Other ordinances and implementation measures may also be necessary to reflect plan policies through implementation.

The Comprehensive Plan, based on the previously discussed inventories, identifies the following:

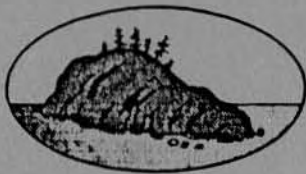
1. The process in which the plan is developed, adopted and revised. This section is the way in which the citizens, elected officials and interested state and federal agencies interact so the plan is agreeable to the city and allows the city to work effectively with other levels of government. Additionally, it details how the plan can and will be revised in the future.
2. The establishment of problems and planning issues which were identified, discussed and resolved during the development and discussion of planning

information.

3. The goals which give general statements of direction to the city and its residents for future development. In addition to the goals, more specific Policies are established which identify courses of action the city can take to achieve the intent of the overall goals. For instance, transportation is limited in Port Orford. To increase transportation opportunities and the efficiency of existing transportation, the transportation goal states: To provide a safe and efficient transportation system for current and anticipated demand. A specific Policy is, "to encourage improvements and development of the Cape Blanco Airport facilities". To support this activity the city's strategy as stated will be to "Encourage and support efforts to develop a variety of air, water and land transportation systems including Port, Airport, and Highway improvements".
4. Of primary importance to residents and the city is the Land Use Classifications and planning map. This section identifies areas which are suitable for different levels of development.

In addition, an illustrative land use map is included to guide implementation of the plan policies by specific ordinances and regulations.

Therefore, this section incorporates the entire plan (inventories, goals and Citizen Involvement) and reflects the results on the land. This section reflects the actual direction that will shape future development.



City of Port Orford

I. INVENTORY SECTION

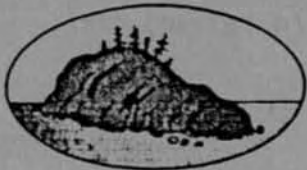
STATEMENT OF THE CITY ENGINEER

The City of Port Orford is located on the southern Oregon coast about 100 miles west of the California border. The city is situated on a narrow strip of land between the ocean and the mountains. The city is a small town with a population of about 1,000 people. The city is a beautiful town with a rich history and a beautiful view of the ocean and mountains.

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A. NATURAL RESOURCES INVENTORY

City of Port Orford

GEOGRAPHY OF THE PORT ORFORD AREA

The Port Orford area is located on the Southern Oregon Coast about 60 miles north of the California border. Geographically isolated, Port Orford is the western-most incorporated city in the contiguous forty-eight states. Port Orford is 51 miles south of Coos Bay, the largest city on the Oregon coast.

The area is situated on a marine-terrace above the Pacific Ocean. Ocean beaches border the area to the south and west. To the south, high sea cliffs and escarpments graduate into coastal hills known as the Heads which reach a maximum elevation of 316 feet. This topography overlooks a deep-water bay and creates a natural shelter in its lee from the prevailing northerly winds. The more exposed western seacoast has gentler terrain consisting of sandy beaches and dunes.

Garrison Lake is the largest freshwater feature in the Port Orford area with a surface area of 85.3 acres. It is situated adjacent to the Heads and is separated from the western beaches by a narrow coastal strand. Several smaller drainages in the area terminate in Garrison Lake, which has a single outlet to the ocean. Low lying areas along these drainages and adjacent to the lake are characteristically marshy or slough-like.

Port Orford is located at the southern end of a 15 mile long coastal terrace which varies from 3-5 miles in width. The terrain in the area is generally level for distances of 1/4 to 1 mile east of Garrison Lake and to the north as far as the Elk River. The majority of the construction in the Port Orford area and most of the incorporated city is on this level ground. The area is bordered to the east by relatively steep foothills which graduate into coastal hills of 2000-3000 feet in elevation.

CLIMATE AND AIR QUALITY

The climate of Port Orford is generally moist and mild with respect to temperature. The average temperature is 52.5 degrees F with the extreme temperature ranging between 95 and 14 degrees F. The average annual precipitation is 72.8 inches. Table 1 summarizes the annual temperature and precipitation data; whereas, Graphs 1 and 2 show the average monthly temperature and precipitation for the City of Port Orford. While substantial amounts of precipitation occur as rain; snow and sleet are rare at Port Orford due to its coastal location.

Map 1 shows the prevailing wind direction in Curry County. The summary for the northern county area indicate that winter winds (January) are predominantly from the southerly direction, whereas, the summer winds (July) are predominantly from the north and northwest. Winter winds are associated with the north Pacific storms that pass through the coast area on a regular basis from October to March or April. Coastal winds in the summer are fairly steady and from the northerly quadrants during daylight hours. The winter storms which occur at Port Orford bring the most extreme winds which have been measured in excess of 100 mph at the Port Orford Heads.

The U.S. Environmental Protection Agency (EPA) established regulations for protecting the air quality in 1974 which require that air quality be maintained cleaner than the National Ambient Air Quality Standards (NAAQS). In Oregon air quality is the responsibility of the Department of Environmental Quality. (DEQ). Port Orford is located in an area which is subject to Class II "Prevention of Significant Deterioration" (PSD) classification which would allow moderate deterioration of air quality. There are many possible sources of air pollutants within the City of Port Orford which could possibly contribute to air quality degradation: 1) industrial uses, 2) concentrated vehicle use, 3) open burning and 4) smoke created from the utilization of wood for residential heating.

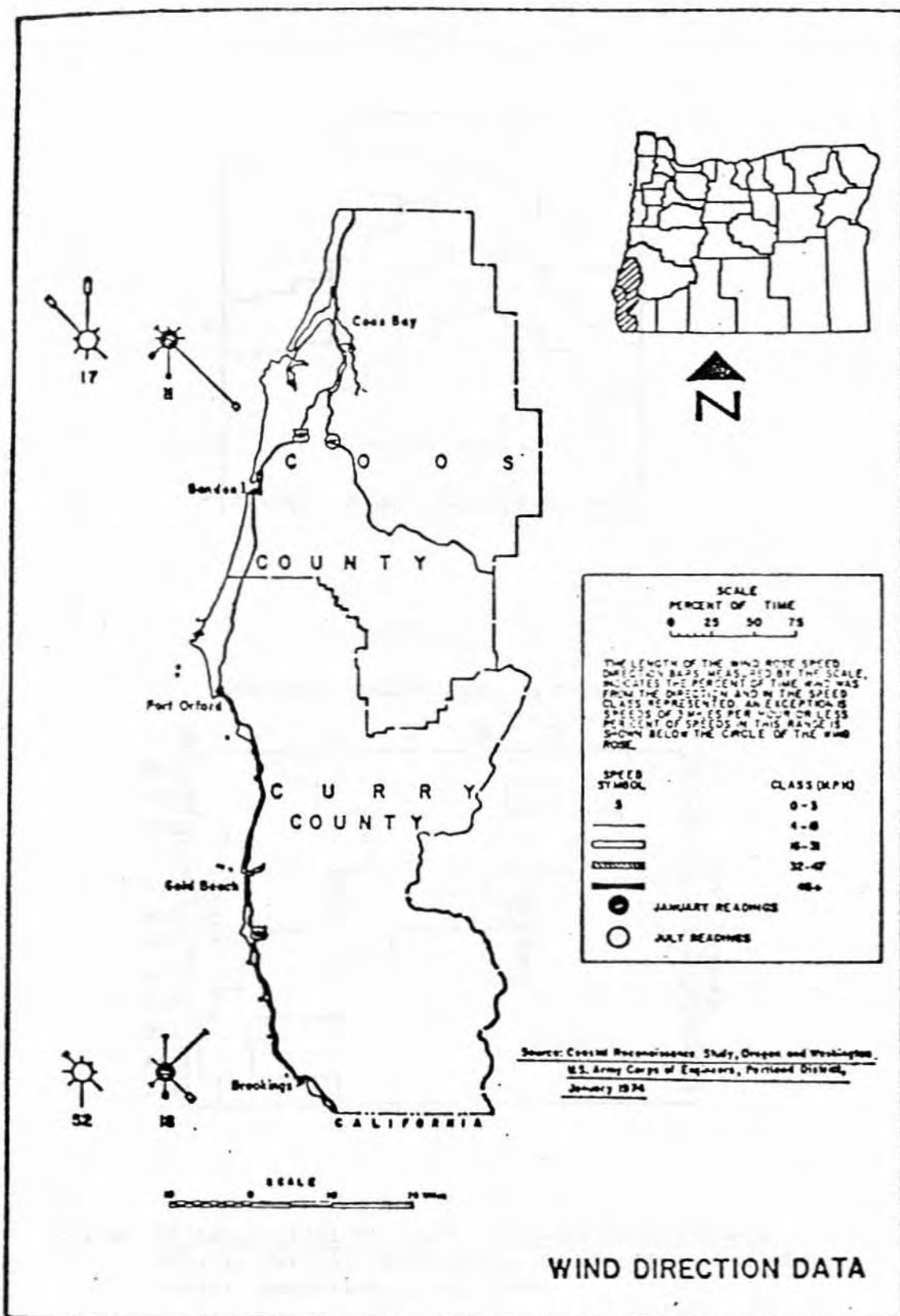
There are no industrial uses located in the City of Port Orford which contribute to air pollution. Industrial uses in the city are limited to small machine shops, fabrication and repair shops and seafood processing plants which do not generate air pollutants. Air pollutants from vehicle use in the city do contribute to air quality degradation; however, there is no concentration of vehicles or vehicle use areas which would lead to significant degradation of the

air in the city. The most concentrated area of vehicle use in the city is along U.S. 101 especially during the summer tourist season, but since there are no stop lights along the highway, traffic does not become concentrated enough to create a localized air pollution problem.

The other possible sources of air pollution are from open burning in yards and smoke from fireplaces or wood stoves. Open burning is allowed in Port Orford under permit from the city, however, it has never significantly contributed to air pollution because it is an occasional activity by citizens. It is doubtful that open burning could become a serious air pollution problem because the city can control it through the issuance of burning permits. The use of wood stoves and fireplaces for heating purposes has increased in recent years, but not to the extent that chimney smoke significantly contributes to air pollution. The city does not know how many dwelling in the city use wood heat but there has never been an occasion when chimney smoke has produced significant visible air pollution. The installation of wood burning heating fixtures is under the jurisdiction of the City Building Official so that all wood burning fixtures meet DEQ emission standards so that it is unlikely that an air pollution problem will ever develop in the city from this type of source.

In conclusion, air pollution is not a significant problem in the City of Port Orford due to the climate of the region. The city is located on a coastal headland which is subject to almost continuous air circulation by the prevalent winds. The coastal winds cause the air to rapidly disperse any pollutants generated within the city so that they never become a significant problem. The worst air pollution situation which occasionally occurs in the area around the city is when conditions allow the burning of slash material during reforestation operations in the mountains east of the city. Smoke from these fires sometimes will drift over the coastal area when there is no wind; however, it is usually dispersed within a few hours when the wind resumes. Aside from this occasional occurrence there are no other air pollution problems within the City of Port Orford.

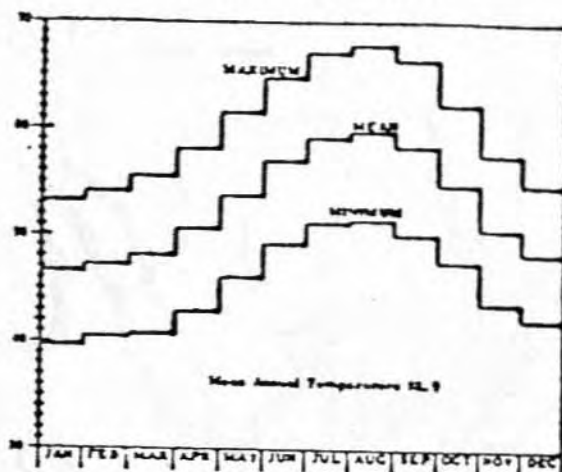
MAP 1



Source: Coastal Reconnaissance Study, Oregon and Washington
U.S. Army Corps of Engineers, Portland District,
January 1974

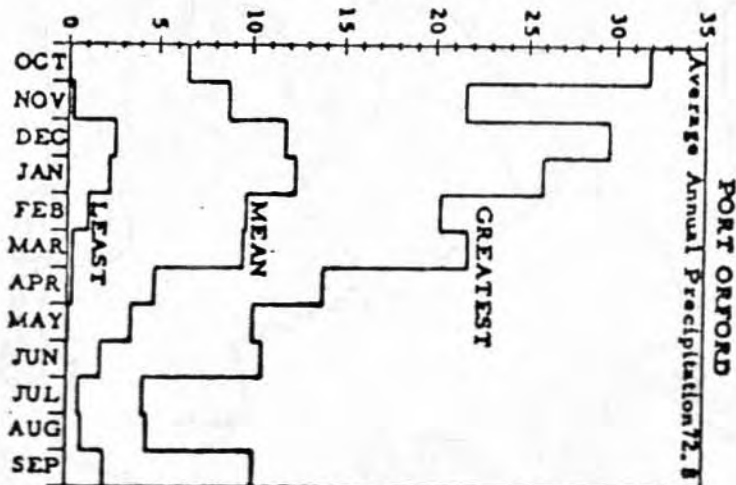
GRAPH 1

PORT ORFORD

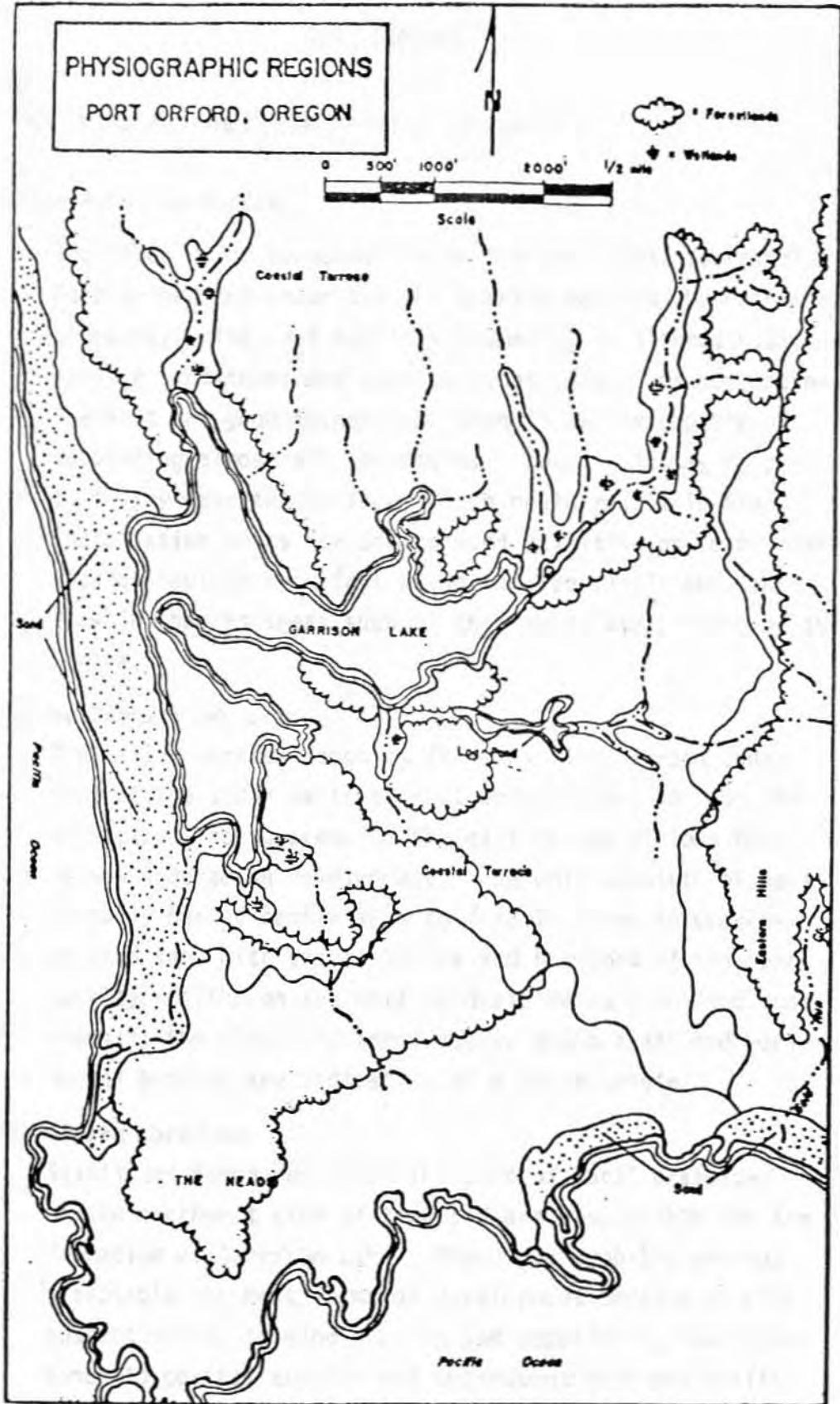


GRAPH 2

MONTHLY PRECIPITATION IN INCHES



Source: Climatological Handbook, Columbia Basin States,
 Col. 1, Part A, Temperature, Pacific Northwest River
 Basins Commission, June, 1969.



PORT ORFORD

ROCK UNITS AND THEIR ENGINEERING PROPERTIES

Otter Point Formation

The Otter Point Formation forms the sea cliffs surrounding Port Orford and underlies the terrace material beneath the community. The unit consists primarily of altered basalts, massive sandstones and conglomerates, and minor serpentine. The unit has good foundation strength and is capable of supporting almost all structures. Locally it may be present very near the surface, which could result in high installation costs for underground utilities or sewer lines. Hazards include rock fall along the sea cliffs and earth-flow in sheared areas such as that immediately north of the marina.

Marine Terrace Deposits

The marine terrace deposits form the flat terrain under most of the older parts of Port Orford and also from the dissected sloping areas on the east fringe of town that is now undergoing development. The unit consists of horizontally bedded semifriable to friable fine, to coarse-grained sand with gravel lenses and horizons of iron pan locally. Although the unit is depicted as stabilized dune deposit; the flat land forms coarse grain sizes and horizontal bedding are indicative of a beach origin.

Stabilized foredune

Stabilized foredunes block the exit of local drainages on the northwest side of town and are responsible for the formation of Garrison Lake. The dunes probably are not acceptable for most forms of development because of high susceptibility to wind erosion and deposition, low resistance to coastal erosion and consequent high probability of fluctuations in the coastline, and the possibility of

compressible marsh deposits in the sub-surface along the edges of Garrison Lake. If development is contemplated, preliminary engineering studies should adequately deal with these hazards.

GEOLOGIC HAZARDS

Flooding

Streams generally are characterized by steep side slopes in their lower reaches and by flat low-lying marshlands upstream from their mouths along the various 'sloughs' of Garrison Lake. The hydrology of the lake is such that the water level varies approximately five feet or less during the year. Consequently, areas subject to stream flooding are restricted to the marshlands upstream from the ends of sloughs.

Within the city limits and away from major streams there do exist scattered low lying areas and areas of impermeable soil where ponding no doubt occurs during the winter months. Basements and other excavations may be subject to winter flooding over considerable areas. The placing of fills in low lying areas must be properly controlled to assure that winter saturation of the fill and consequent loss of foundation strength does not threaten the stability of structures placed upon the fill. Where paving of large areas for parking lots, etc., is anticipated, the increased runoff should be directed into local drainages. It should not be assumed that the additional runoff will percolate into the ground around the edges of the development. Areas subject to flooding are delineated by the Federal Emergency Management Agency (FEMA) flood hazard maps for the city.

Compressible Soils

Compressible soils are soils or deposits which are high in organic matter or uncompacted clay and which are easily compressed under light loads. The marshlands of the streams leading into Garrison Lake and the deposits underlying the stabilized foredunes west of Garrison Lake are probably compressible. Although no buildings may be anticipated for

these areas, road construction may require special engineering to handle the problem of settling. Coring prior to construction is generally necessary to adequately define the extent of the problem.

Erosion and Deposition

The most basic factors of soil erosion are slope intensity and soil texture. Accordingly the moderately sloping loamy soils of presently developing east Port Orford area constitute the most erosion-prone area of the community. Soil erosion in urbanizing areas can be minimized by proper layout of roads, preservation of vegetative cover where possible, and efforts to minimize land disturbance during construction.

Mass Movement

Mass movement includes rock fall along coastal headlands, the sloughing of terrace material from headlands composed primarily of harder bedrock, and massive earthflow along the broad shear zone which extends from the marina eastward for a distance of approximately one mile. The sloughing of terrace material is particularly dangerous to sightseers and cliffside residents in that terrace material resting upon hard bedrock can respond to internal stresses and slide over the edge of the cliff regardless of the stability of the cliff as a whole.

The shear zone exposed in the sea cliffs south of Port Orford (from the marina eastward) is of uncertain age at the moment, but is significant because it involves a large area of unstable ground. Hummocky topography is evident north of the marina and also for a considerable distance along the beach east of Battle Rock.

Esthetics

Port Orford is very fortunate to have within its boundaries a lake such as Garrison Lake. Eutrophication and progressive deterioration of such lakes commonly results from unrecognized longterm imbalances in nutrient and sediment balances induced

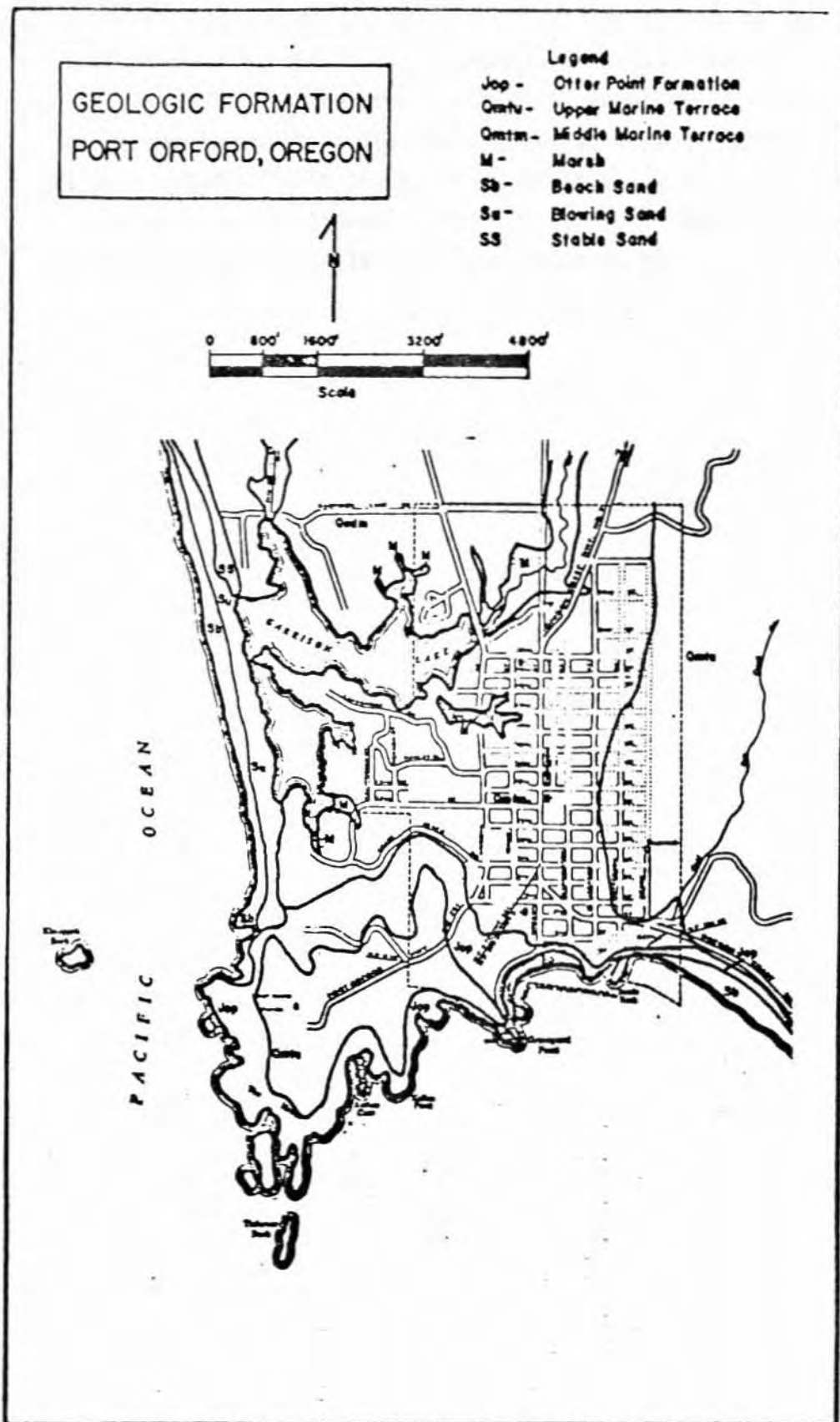
by increasing urbanization.

Earthquakes

There are no documented epicenters in the immediate Port Orford area. However, the question of local seismicity is not totally resolved. Historically Port Orford felt an Intensity VIII quake in 1873 and an Intensity III quake in 1932. The earthquake potential can probably be regarded as moderate, although it is regarded as severe by many sources on the basis of the 1873 quake.

Source: Preliminary evaluation of draft 'Land Use Geology in Curry County'; John Beaulieu, Department of Geology and Mineral Industries, 1976.

MAP 3



IDENTIFICATION LEGEND

<u>Symbol</u>	<u>Mapping Unit Name</u>
CB	Coastal beaches
FL	Fill land (Urban land)
Te	Terrace escarpments, marine (Udorthents)
* 8A	Langlois silty clay loam, 0 to 1 percent slopes
* 13A	Brallier peat, 0 to 1 percent slopes
109 D	Digger gravelly loam, 12 to 30 percent slopes
109 E	Digger gravelly loam, 30 to 50 percent slopes
131 E	Sebastian gravelly loam, 30 to 50 percent slopes
154 F	Millicoma-Bohannon loams, 50 to 75 percent slopes
200 D	Westport loamy sand, 12 to 30 percent slopes
*207 B	Ferrelo sandy loam, 0 to 7 percent slopes
*207 C	Ferrelo sandy loam, 7 to 12 percent slopes
207 D	Ferrelo sandy loam, 12 to 30 percent slopes
*217 B	Bullards sandy loam, 0 to 7 percent slopes
*217 C	Bullards sandy loam, 7 to 12 percent slopes
*217 D	Bullards sandy loam, 12 to 30 percent slopes
217 E	Bullards sandy loam, 30 to 50 percent slopes
*219 A	Bandon sandy loam, truncated 0 to 3 percent slopes
*219 B	Bandon sandy loam, 0 to 7 percent slopes
*219 C	Bandon sandy loam, 7 to 12 percent slopes
*220 B	Coosbay silt loam, 0 to 7 percent slopes
*220 C	Coosbay silt loam, 7 to 12 percent slopes
220 D	Coosbay silt loam, 12 to 30 percent slopes
220 E	Coosbay silt loam, 30 to 50 percent slopes
230 A	Blacklock fine sandy loam, 0 to 3 percent slopes
231 B	Blacklock fine sandy loam, 3 to 7 percent slopes
*246 B	Joeney-Coosbay complex, 0 to 7 percent slopes
*247 B	Joeney-Complex, 0 to 7 percent slopes

*Class I-IV soils

BEACHES AND DUNES

The Port Orford area has two major locations in which dune and beach sands are found. (See physiographic regions Map 2). These are the western beaches to the north of the Heads and the beaches to the east and south of the Heads. Dune sands in the inventoried area occur only along the western beaches. A small area of dune sands also occurs slightly to the south of Port Orford in the Hubbard Creek area.

Garrison Lake is separated from the Pacific Ocean by a narrow coastal strand of dune and beach sands which range from 750 feet to 1000 feet in width. Most of this area is composed of relatively young dunes which have been stabilized with beach grasses. However, the oceanward side of these stabilized dunes is marked in numerous locations by active foredunes*. These are conditionally stable but are growing in height.

At the present time there is no development on any of the inventoried beaches and dunes in the Port Orford area. The beach area to the east and south of the Heads is readily accessible and is heavily used recreationally. The western beach and dune area has limited access and is not heavily used for recreation. However, the western beach area is most heavily used in the northern section, where road access is available to the public.

The total area occupied by sand dunes in the inventoried area is approximately 110 acres. Approximately 100 acres of this total is located in the western beach and dune area.¹

* A growing barrier ridge of sand immediately above the tide land and paralleling the beach.

¹ Soil Conservation Service, Beaches and Dunes of Oregon Coast, March, 1975.

FRESHWATER

Surface Water

The Sixes Subbasin includes the watersheds draining into the Pacific Ocean from Fourmile Creek on the north to Euchre Creek on the south. This is an area approximately 442 square miles. Principal drainages are Fourmile Creek, Floras Creek, Sixes, Elk River, and Euchre Creek.

Precipitation ranges from 55 inches at Cape Blanco to 120 inches in the headwaters of the Elk River. Stream gradients vary considerably. As an example, the headwater stretch of the Elk River has a gradient of 400 feet per mile while on the lower main stem of gradient averages 30 feet per mile. Eighty-seven percent of the basin is covered by forests, three percent by cropland, and eight percent by rangeland.

The average annual yield of the entire subbasin was estimated to be 1,500,000 acre-feet. Similar estimates were made on the Elk River (average yield 330,000 acre-feet), Sixes River (440,000 Acre-feet), and Floras Creek (210,000 acre-feet). Run-off per square mile, based on these values, varies from 3,500 acre-feet to 4,300 acre-feet

The only presently reported shortages for irrigation water have been on several small acreages in the Sixes and Floras drainages and future needs for water will probably be dependent primarily upon the pattern of irrigation development. Dry season water shortages have occurred for the municipal water system of the City of Port Orford as well.

There is a potential for the development of water-using industry on either the Sixes or Elk Rivers. However, due to a lack of stream gaging, it is not know if the low flows in these streams would be adequate for such development or if these flows would need to be supplemented by releases from storage.¹

¹Source: Report, South Coast Basin, State Water Resources Board; Salem, Oregon.

Groundwater

Knowledge of groundwater distribution in the Port Orford area is limited. There probably is a groundwater aquifer in the marine terrace deposits in the vicinity of Garrison Lake; however, there is not sufficient data to accurately define its volume or extent. The present use of groundwater, except for domestic use, is small and it is not anticipated that groundwater will play a large part in future development of the city or its urban growth area.

The Environmental Quality Commission has determined that in areas designated as sensitive groundwater aquifers that highest and best practicable treatment and control of sewage, industrial wastes, and landfill leachates is required so as to minimize potential pollutant loading to groundwater. Among other factors, energy, economics, public health protection, potential value of the groundwater resource to present and future generations, and time required for recovery of quality after elimination of pollution loadings are considered in arriving at a case-by case determination of highest and best practicable treatment. In Port Orford, at this time, there is no industrial waste; most of the City is sewered and sewage is treated according to DEQ requirements; and no leachate monitoring has been done at the landfill, though it may be done at some point in the future.

Water Quality

Water quality in the United States is controlled by the Federal Pollution Control Act with the intent of this law being to improve the water quality of all waters in the nation by limiting pollution. Oregon implements this law through OAR Chapter 340 which empowers the Department of Environmental Quality to set water quality standards throughout the state. The water quality standards of Oregon regulate the discharge of waste material into the waters of the state with respect to the following: 1) thermal discharge, 2) turbidity, 3) coliform bacteria, 4) dissolved gasses, 5) radioisotopes, 6) dissolved chemicals, and 6) other materials which may alter water quality.

The City of Port Orford has both surface and groundwater resources within its boundaries that could be subject to pollution. There are no discharges of thermal, dissolved gas, radioisotopes, dissolved chemicals or other material wastes within the city which must be inventoried. The main sources of water pollution within the city are from the city's waste water treatment plant and from leakage of subsurface sewage disposal systems where there is no public sewer available. Presently, the city has a DEQ permit to discharge the effluent from its sewage treatment plant into Garrison Lake for final disposal. Dwellings located along the north shore of the lake and in the UGB area use on-site sewage disposal and some of these systems may be leaking due to their age and lack of maintenance. Thereby, potentially polluting both groundwater and surface water. Storm runoff in the city and UGN may cause turbidity pollution to Garrison Lake from suspended material in the runoff waters.

The City Engineer recently completed a study of Garrison Lake and factors which may contribute to degradation of water quality in the area (Dyer, G., 1985). This study compiled all the available water quality data for Garrison Lake and its tributaries and for Hubbard Creek which is located in the easterly part of the UGB and is the city's current drinking water source. The data included existing bacterial and nutrient profiles, vertical temperature, conductivity, transparency and dissolved oxygen profiles. Data was collected from January-August 1985 and continued on a bimonthly basis into the fall of 1985. Analysis of the data available to the City Engineer, as of November 1985 resulted in the following conclusions;

1. The January 1985 data shows that the lake is a typically well mixed system with the vertical profile measurements indicating little variations from surface to bottom and by locations of sample in the lake.
2. It appeared that in January, due to lake circulation, wind patterns and stream flow that the effluent plume from the treatment plant discharged immediately into the ocean through the lake outlet.
3. From March through June 1985 the lake appeared to maintain its well mixed condition but the lower basin of the lake seemed to increase in phosphates, nitrogen, and chlorophyll values. This resulted in an increase in phytoplankton and macrophyte bed growth by June.
4. The conclusion is that during the period from early winter through late spring there is sufficient flow through the lake to carry the sewage treatment plant effluents out the lake outlet. Therefore, the test results indicate that the discharge of treated effluent into the lake does not cause major contamination of water quality in the lake. However, removal of the discharge into the lake could ultimately result in the water quality in the lower basin of the lake improving to that of the upper basin.

The water quality survey also included a survey of areas which may be contaminant sources for both groundwater and surface waters from subsurface sewage disposal systems. The survey was conducted by an environmental sanitarian who visited all areas without public sewer disposal service and checked the location of subsurface drainfields, discussed the functioning of the systems with landowners and noted any indication of system failure. Sites which potentially may be malfunctioning and contributing contaminants were noted on a map (See Figure). The study does not contain any quantitative information regarding volume or type of contaminant discharge which could be used to assess the contribution of this type of pollutant to degradation of local water quality.

Storm runoff contributes turbidity to Garrison Lake and other surface waters because most runoff is via street drainage ditches and natural stream courses. Generally turbidity from this type of source is not a significant problem because the natural drainage courses through the city are well vegetated with riparian plants that trap sediment and debris in the runoff waters. Turbidity problems in Garrison Lake have on occasion resulted from accelerated erosion of streambanks, construction fills, or the lake shoreline itself. These are very infrequent occurrences which are quickly corrected by protection of the erosion site by rip rap or revegetation.

The most significant water pollution problems facing the city are concerning the water quality of Garrison Lake. Degradation of water quality can be attributed to contaminant sources related to subsurface sewage disposal systems located in the UGB area on the north side of Garrison Lake and its tributaries. The city has identified this problem and has developed plans to extend public sewer service to these areas. The present sewage treatment plant outfall discharges into Garrison Lake and the city may seek to modify the outfall to eliminate the discharge into the lake in order to improve the water quality in the lower basin of the lake.

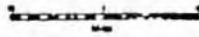
TABLE 2

MORPHOLOGICAL FEATURES OF GARRISON LAKE

PARAMETER	DATA
Surface Areas, acres	90
Volume, acre-feet	700
Maximum Depth, feet	26
Mean Depth, feet	8
Maximum length, feet	5,500 EW
	4,300 NS
Maximum Width, feet	2,100
Direction of Major Axes	E-W
	N-S
Length of Shoreline	3.8
Shape factor	2.9
Shoal Area (10-15 Ft.), acres%	70.1
	82.2
Mean Depth-Meximum Depth Ratio	0.32
Maximum Depth-Surface Ratio	0.01

From Oregon Department of Environmental Quality "Atlas of Oregon Lakes", 1985

COASTAL ZONE WATER USE POLICY



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MANAGEMENT CONSIDERATIONS

MAP 5

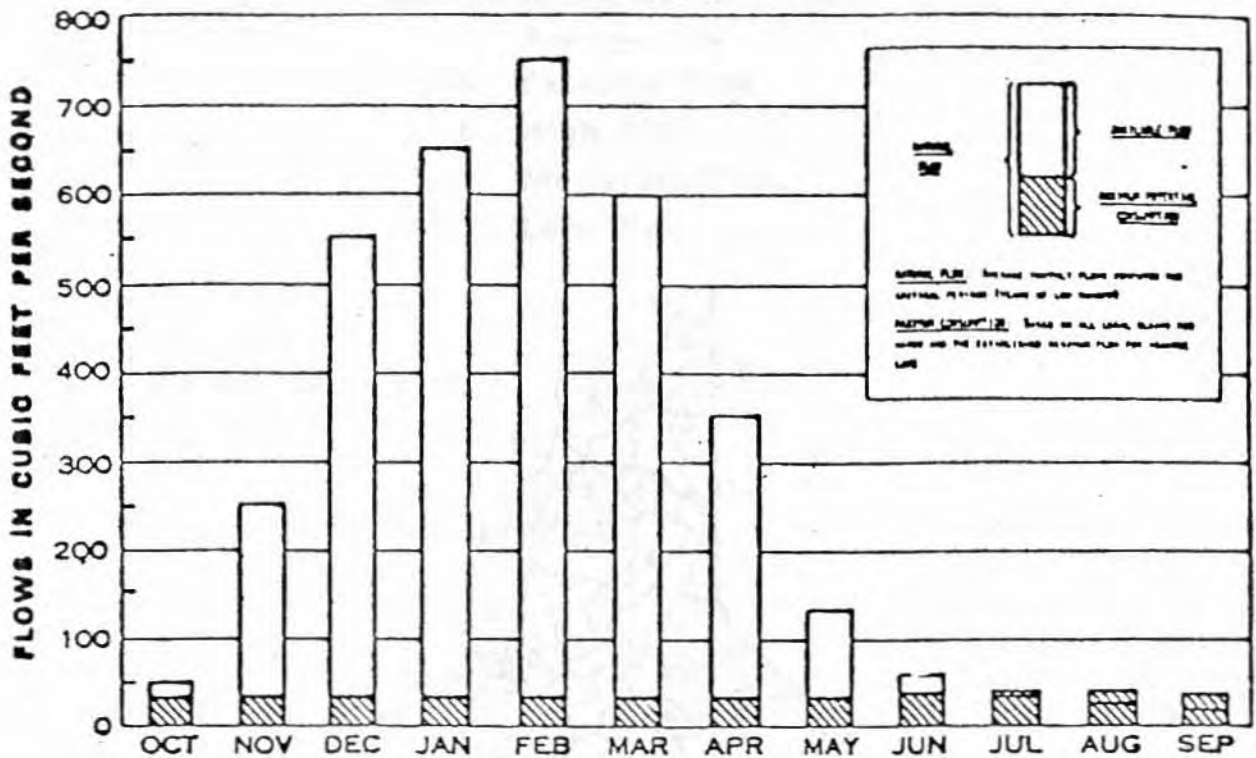
STATE WATER RESOURCES BOARD WATER USE POLICY

MAP LEGEND

- A.....Withdrawn by Legislative Order
 - B.....Withdrawn by Order of State Engineer
 - C.....Domestic, Livestock, Irrigation, Power, Industrial, Mining, Recreation, Wildlife, and Fish Life
 - C1....Limits Power to 7½ hp.
 - C2....Includes Temperature Control
 - D.....Domestic, Livestock, Irrigation (½ acre), Power (7½ hp.), Recreation, Wildlife, and Fish Life
 - E.....Domestic, Livestock, Municipal, Irrigation (½ acre), Power (7½ hp.), Recreation, Wildlife, and Fish Life
 - F.....Human Consumption, Livestock Consumption, Industrial, Recreation, Wildlife, and Fish Life
 - G.....Human Consumption, Livestock Consumption, Power (7½ hp.), Recreation, Wildlife, and Fish Life
 - H.....Natural Lakes - Domestic, Livestock, Recreation, Wildlife and Fish Life
 - H1....Include Power (7½ hp.)
 - H2....Include Power (7½ hp.) and Irrigation (½ acre)
-
-  Tidal Influence Zone - Domestic, Livestock, Municipal, Irrigation, Industrial, Recreation, Wildlife, and Fish Life
 -  Municipal Reservation
 -  Minimum Streamflow Point
Refer to individual basin policy statements for specific locations and stream flow quantities

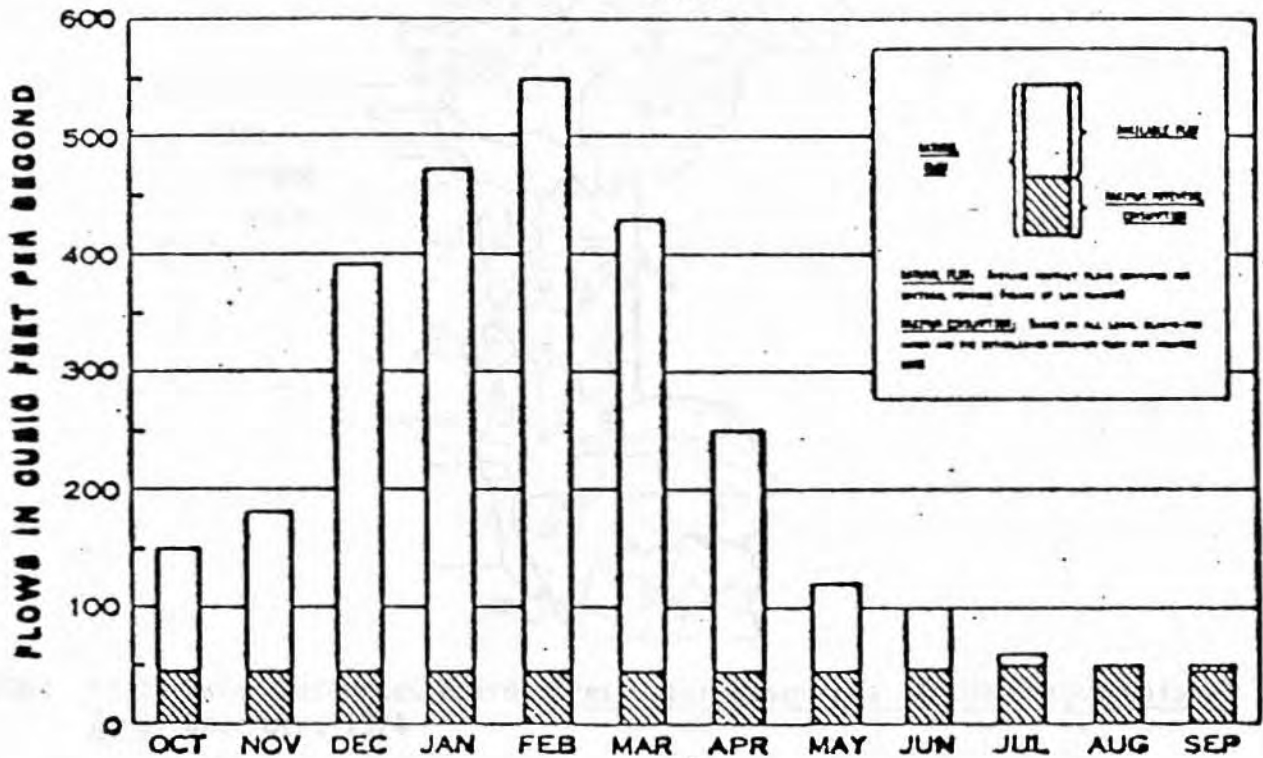
GRAPH 3

WATER RESOURCE AVAILABILITY *
SIXES RIVER
SM 0



GRAPH 4

WATER RESOURCE AVAILABILITY
ELK RIVER
SM 0



SOURCE: State Water Resources Board: Freshwater Resources of the Oregon Coastal Zone; December, 1974

COASTAL ZONE WATER-AVAILABILITY RISK

- A Extreme Risk
- B High Risk
- C Moderate Risk
- D Low Risk



SOURCE: State Water Resources Board; Freshwater Resources of the Oregon Coastal Zone; December, 1974

WETLANDS

Wetlands may be defined as "those areas on which standing water, seasonal or permanent, has a depth of six feet or less and where the wet soil retains sufficient moisture to support aquatic or semi-aquatic plant life". (Metzgar, 1968). Wetlands in the Port Orford area occur in relation to Garrison Lake and the streams which drain into it.

The major wetlands areas occur along the northern arms of Garrison Lake and in relation to the log pond which extends to the east of the lake. The specific location of wetlands areas are shown on the 'Physiographic Regions' - Map 2.

The physical problems associated with building in wetlands areas are such that the majority of the wetlands areas are in nearly natural state. In most areas where disruption has occurred, the disruption has been relatively minor, such as small-scale road building. Land fill, also on a relatively small scale, has also disrupted wetlands areas to some degree. The re-location of U.S. Highway 101 to the west will occur in the area's largest marsh, and represents the largest scale disruption to date.

A large portion of Garrison Lake and the log pond, being shallow, also qualify as wet lands.

FOREST LANDS

There are three large areas that are primarily forest-covered in the Port Orford area. These are the northern slopes of the Heads, the eastern hills, and most of the area to the north of Garrison Lake. None of these areas are presently used for commercial timber production. Climatic factors, soils, and drainage severely restrict the tree growing capacity for most of these forestlands. (See map of 'Physiographic Regions - 2).

Common commercial tree species which grow in the area include Douglas Fir, Sitka Spruce, Port Orford Cedar, Western Hemlock, and Shore Pine in the Coniferous category; and Tan Oak

and Alder in the broad-leaved category.

All of the forest lands in the inventoried area are in the Garrison Lake water-shed, with the exception of a small area which drains into Gold Run Creek. The forests have a beneficial effect on Garrison Lake water quality, but have not been designated specifically as watershed lands.

Extremes of soils, climate, and topography generally do not necessitate the maintenance of forest cover, but all the forest lands provide buffers, wind-breaks, wildlife habitat, and opportunities for recreational use.

COASTAL SHORELANDS

The City of Port Orford and Urban growth area contain a wide variety of Coastal shorelands. Coastal shorelands include lands contiguous with the ocean and coastal lakes which have the following attributes:

- 1) Areas subject to ocean flooding and lands within 100 feet of the ocean shore or within 50 feet of an estuary or a coastal lake;
- 2) Adjacent areas of geologic instability where the geologic instability is related to or will impact a coastal water body;
- 3) Natural or man-made riparian resources, especially vegetation necessary to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of fish habitat and spawning areas;
- 4) Areas of significant shoreland and wetland biological habitats whose habitat quality is primarily derived from or related to the association with coastal water areas;
- 5) Areas necessary for water-dependent and water-related uses, including areas of recreational importance which utilize coastal water or riparian resources, areas appropriate for navigation and port facilities, dredge material disposal and mitigation sites, and areas having characteristics suitable for aquaculture;

6) Areas of exceptional aesthetic or scenic quality, where the quality is primarily derived from or related to the association with coastal water areas; and

7) Coastal headlands.

Specific shoreland areas which have been identified are the ocean beach shorelands, the Garrison Lake and marsh association shorelands, the Heads, the Port of Orford and adjacent areas of geologic instability, and water dependent and related recreational areas associated with Garrison Lake.

The approximate acreage of the various shoreland types are indicated below:

Table 3

<u>Shoreland Type</u>	<u>Acreage</u>
Ocean beach/scenic	<u>40</u>
Coastal headland	<u>58</u>
Water dependent and related development	<u>14</u>
Lakeshore	<u>85</u>
Geologically unstable	<u>10</u>
Habitat/water quality	<u>37</u>

All shoreland types are also considered under individual inventory categories, such as recreation, geologic hazards, wildlife habitat, and geography in more detail. Reference to the table of contents will facilitate locating those inventories by subcategories.

COASTAL SHORELAND BOUNDARY

Map 8 indicates the location of the "Coastal Shorelands" boundary within the City of Port Orford. Statewide Planning Goals 17 and 18 are concerned with Coastal shorelands and beaches. Within the City of Port Orford the Coastal shoreland is typically either the

shoreline of Garrison Lake and its ocean spit; or a sea cliff such as the Port Orford Heads and the marine terrance along the shoreline east and south of town.

The comprehensive plan must inventory the following features with regard to coastal shorelands:

1. Hazard areas including a) areas whose use may result in significant hydraulic alteration of other lands or water bodies; b) areas of geologic instability adjacent to shorelines, and c) the 100 year flood plain.
2. Existing land uses and ownership patterns, economic resources, development needs, public facilities, topography, hydrography and similar information affecting shorelands.
3. Areas of scenic importance.
4. Coastal shoreland and wetland habitats.
5. Areas of recreational importance.
6. Areas of riparian vegetation.
7. Sedimentation sources.
8. Areas of public access.
9. Areas of archeological and historical interest.
10. Coastal headlands.
11. Beach and dune areas.

The above items must be identified within the coastal shorelands planning area as specified under Goal 17.

Goal 17 defines Coastal shorelands as those lands which are contiguous to the ocean and coastal lakes and further states that the extent of shorelands shall include at a minimum the following types of land:

1. land which is directly affected by the hydraulic actions of the coastal water body;
2. adjacent areas of geologic instability;
3. areas of vegetation which stabilize the shoreline;
4. significant shoreland and wetland biological habitats;
5. areas necessary for water-dependent and water-related use;
6. areas of exceptional aesthetic or scenic quality; and
7. coastal headlands.

Therefore, the comprehensive plan must designate a coastal shorelands boundary within the coastal planning area defined by the goal in order to adequately define coastal shorelands. The City has inventoried all of the required features as part of the comprehensive plan and used the inventory information to determine the location of the coastal shorelands boundary within the city.

The coastal shorelands boundary as shown in Map 8 is specifically defined as follows:

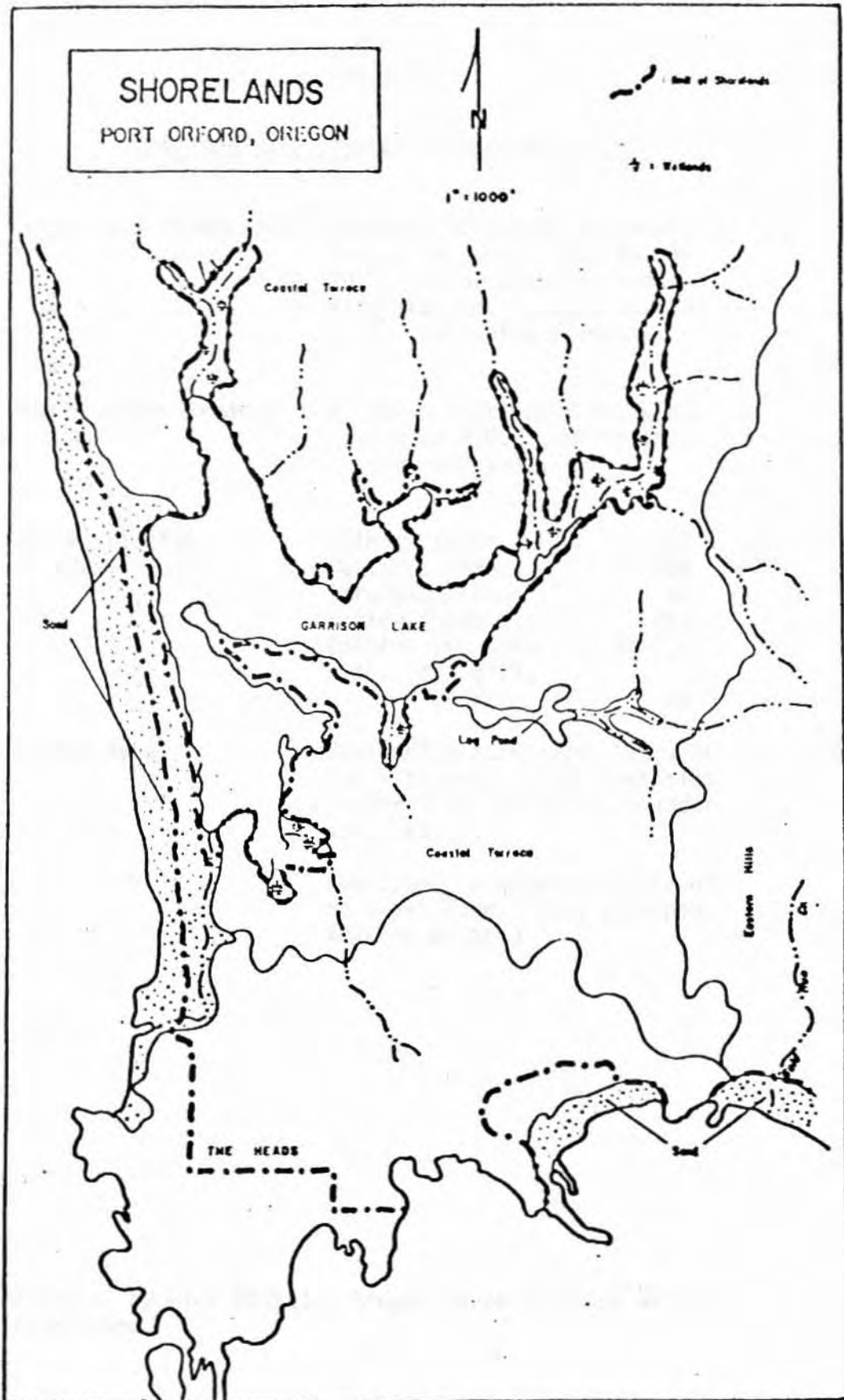
1. lands lying north of the City of Port Orford, in the UGB, the coastal shorelands boundary is defined as being at the top of the seacliff to the northerly end of Garrison Lake spit (Ref. Curry Co. Comp. Plan p. 319);
2. on the Garrison Lake spit the boundary is defined as being a line located 100 feet inland from mean high tide (Ref. Curry Co. Comp. Plan, p.319);
3. at a point 1500 feet south of Garrison Lake State Wayside the boundary crosses the spit to a line defined as being a uniform horizontal distance of 50 feet inland from the ordinary high water mark of Garrison Lake following the entire perimeter of the lake (Ref. Map 8);
4. at the south end of the Garrison Lake spit the boundary is defined as the boundary of the Port Orford Heads State Wayside park to its southeasterly intersection with the top of the sea cliff at Nellies Cove (Ref. Map 8);
5. at the southeasterly corner of Port Orford Heads State Wayside the boundary is defined as a line which follows the top of the sea cliff in an easterly direction to the mouth of Gold Run Creek (Ref. Map 8)
6. from the southeasterly city limits to the southerly limit of the UGB the coastal shorelands boundary is defined as being at the tip of the sea cliff (Ref. Curry Co. Comp. Plan p. 319).

The coastal shoreland boundary as defined above included all of the coastal land types required by Goal 11. Those coastal lands which have been included within the boundary are:

1. all beach areas within hydraulic influence of the Pacific Ocean;
2. all coastal dune areas;
3. all areas which have vegetation that stabilize the beach and Garrison Lake spit;
4. areas of geological instability such as sea cliffs and Garrison Lake spit;
5. areas of significant shoreland and biological habitat along the Garrison Lake shoreline and the upper arms of the lake;
6. areas necessary for water-dependent and water-related use located at the Port of Port Orford facility;
7. areas of exceptional scenic quality at Port Orford Heads, Garrison Lake; and Battle Rock Park;
8. the Port Orford Heads coastal headland; and
9. Garrison Lake, a coastal lake.

Where the coastal shorelands boundary is defined as the top of a seacliff it may be modified on a case by case basis to a specific line as defined by analysis of sea cliff erosion as a geological hazard. Specific requirements for geological hazard analysis due to instability caused by coastal erosion are set forth in the City Zoning Ordinance under "Development in Areas of Geological Hazard".

MAP 8



WILDLIFE HABITAT

Table 4

GARRISON LAKE FISHERY CHARACTERISTICS*

Bottom Food Production	Averages 40 pounds per acre. Ranges from high 82.8 to low 10.3. Major species; amphipod, midge larvae, isopod, annelid worm, freshwater clams.
Fish Stocking Program	32,000 fingerling rainbow per year plus 4,000 legal-sized rainbow per year.
Fish Population Composition	Rainbow trout 25% Cutthroat trout 20% Largemouth bass 4% Yellow perch 25% Cottids (sculpin, etc.) 22% Misc. (bluegill, shiner, etc.) 4%
Habitat Type	Dominant bottom type: organic mud with associated vegetation (water lily, milfoils, bladder wort, etc.). Sub-type: sand with little or no vegetation. (Key amphipod rearing areas.)

*Prepared by Rick Riikula, Oregon State Fish and Wildlife Commission.

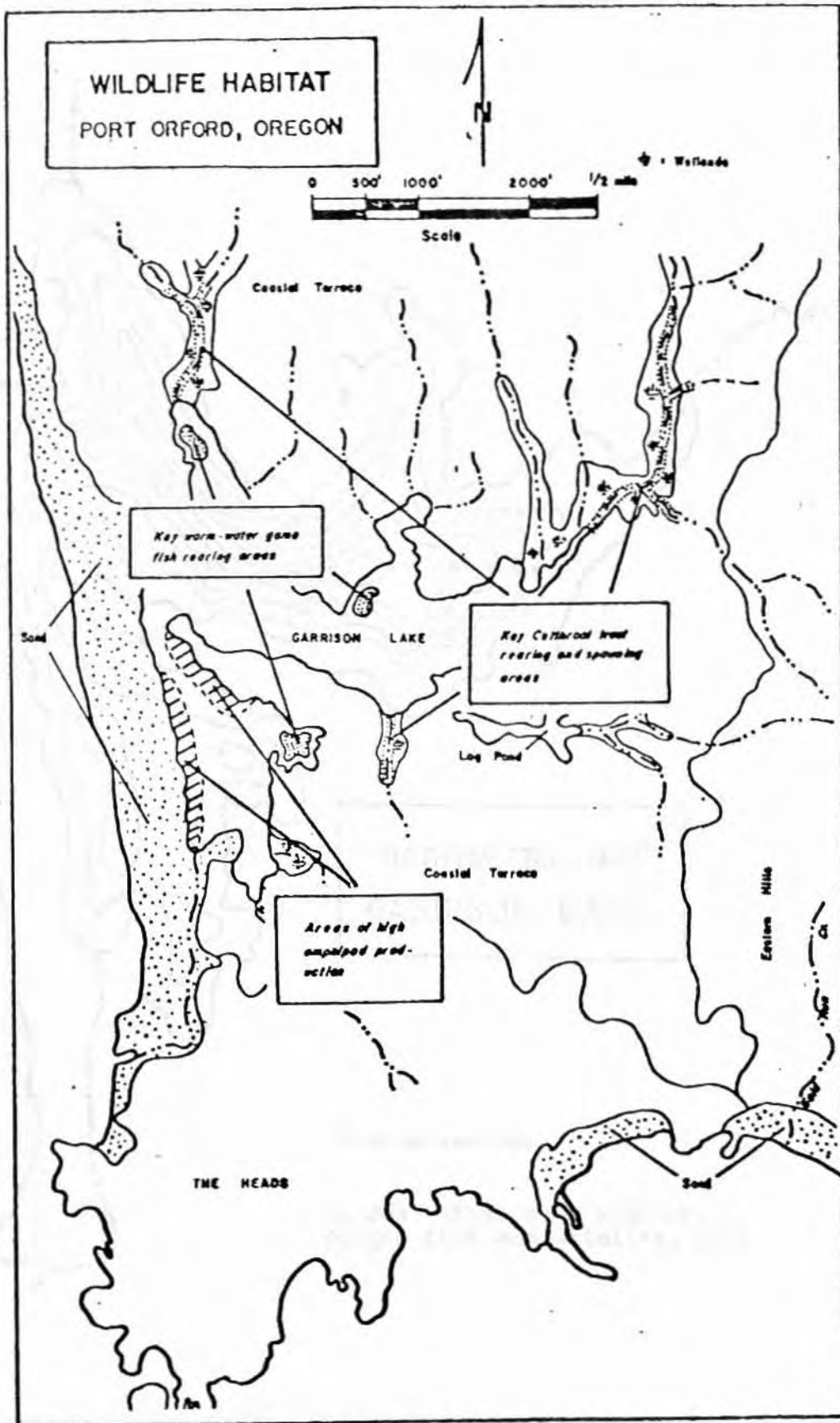
Land-oriented animals and birds are more mobile than those dependent upon water for habitat. For this reason, all undeveloped land area represents existing or potential habitat for land animals. As a general rule, all other conditions being equal, those areas farthest from existing development are the most suitable in terms of habitat, although even developed areas may provide habitat to a greater or lesser degree. Land animals known to be present in the Port Orford area include most of the types known to be present in the northern Curry County area.

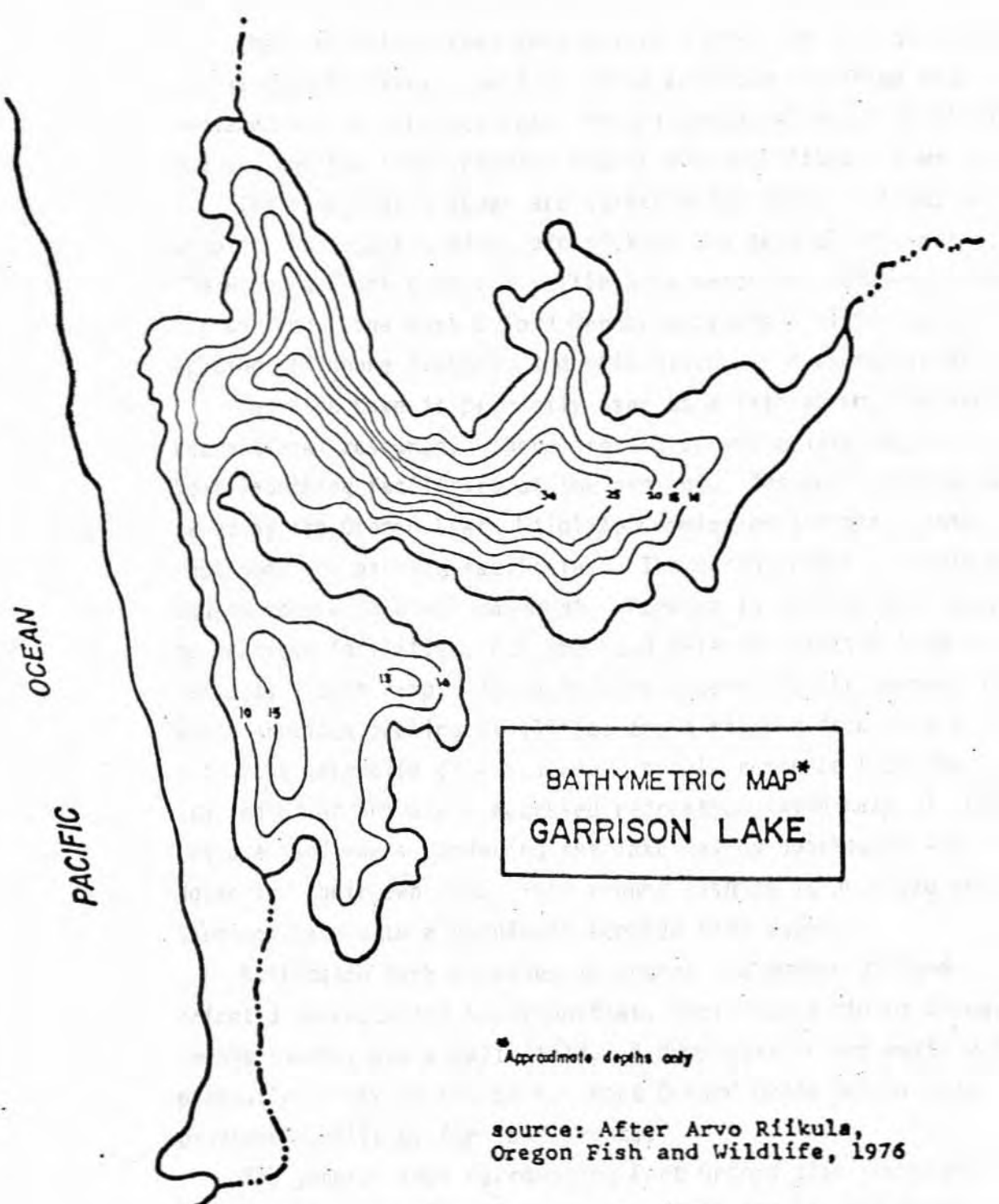
Garrison Lake and related marshlands in the areas provide habitat for numerous species of water-fowl. The open lake surface is used frequently by migratory birds, and the shore and marsh areas provide nesting sites. Water-fowl known to occur include various species of ducks, Great Herons, American Egret and others.¹

*With the exception of the Sea Otter, there are no known endangered species in the Port Orford area.

¹Otterman and Verts, 1972.

MAP 9





BATHYMETRIC MAP*
GARRISON LAKE

* Approximate depths only

source: After Arvo Riikula,
Oregon Fish and Wildlife, 1976

OUTDOOR RECREATIONAL OPPORTUNITIES AND FACILITIES

The Port Orford area encompasses a great variety of recreational opportunities. Most of these are water-oriented and centered around Garrison Lake and the ocean, although facilities are present for land-oriented sports and activities, as well.

The ocean beach areas are suitable for shore fishing, beach combing, horseback riding, picknicking and general relaxation. The Hubbard Creek area and Battle Rock Beach are frequently used for surfing. The Port Orford Harbor provides limited access for boating, offshore fishing, and skin diving on a recreational basis.

Garrison Lake is primarily used as a fishing and boating recreational resource. There are two access points which provide boat launching facilities at the present. The south access is owned by the Oregon State Wildlife Commission and has a boat ramp, restroom, and parking facilities. The north access consists of a county road with a 40' easement. Parking is limited and there are no restroom facilities, but the road extends into the lake to serve as a boat ramp. There is also a central, city-owned, access, which provides parking facilities and a fishing dock. In addition, the lake also offers a considerable resource from the standpoint of privately accessed recreation, with many of the private landowners bordering the lake having boathouses and docks for their own use. Year around fishing is provided on Garrison Lake with a regularly stocked fish supply.

Buffington Park provides an increasing number of land-oriented recreational opportunities, including a riding arena, tennis courts, and a ball field. A dump station for waste water presently exists in the park. Port Orford Grade School also provides facilities for land sports.

The general area surrounding Port Orford also represents a considerable recreational resource. Both the Elk and Sixes Rivers are located within a few miles of the city and offer excellent fishing for salmon, steelhead, and sea-run cut-throat trout. Port Orford is also the nearest city to two well-developed

State Parks at Humbug Mountain and Cape Blanco. Less sophisticated Forest Service Camps are available at Butler Bar and Panther Creek on the Elk River and at McGribble Camp on Bald Mountain Creek. County maintained day use facilities are available at Edson Creek on the Sixes River, and the Bureau of Land Management maintains a campground at the junction of the south fork with the main stem of the Sixes.

The following inventory of existing outdoor recreation facilities, contains those public parks that are within a twelve-mile radius of the City of Port Orford. The source of the list is the Curry County Preliminary Community Facilities and Traffic Circulation Elements, prepared by the Coos-Curry Council of Governments in August, 1972. This inventory has been updated with information from the 1983 Statewide Comprehensive Outdoor Recreation Plan (SCORP), 1983

Table 5

<u>NAME</u>	<u>OWNERSHIP</u>	<u>ACRES</u>	<u>TYPE OF RECREATION</u>
Cape Blanco State Park	State	1,880	Camping, trailer space picknicking, hiking, beach combing, historical site, scenic, fishing.
Battle Rock Park	City	3	Beaches, viewing, his- torical site.
Humbug Mountain State Park	State	1,842	Beaches, forests, pic- nicking, camping, trailer spaces, fishing, swimming, nature study hiking, scenic views.
Floras Lake State Park	State	1,361	(Undeveloped) Coastal lake and beach access.
Port Orford Forest Wayside	State	32.6	(Undeveloped)
Paradise Point State Wayside	State	12	(Undeveloped) Beach access.

Table 5 (continued)

<u>NAME</u>	<u>OWNERSHIP</u>	<u>ACRES</u>	<u>TYPE OF RECREATION</u>
Port Orford Heads STATE Wayside	State	95.5	Day use, viewpoint, hiking.
McGribble Forest Campground	US Forest Service	2	Camping, fishing, hunting, hiking.
Panther Creek Forest Campground	US Forest Service	2	Camping, fishing, hiking.
Butler Bar Forest Campground	US Forest Service	4	Camping, fishing, swimming, hiking.
Sixes River Recreation Site	BLM	120	Trailer spaces, camping, scenery, swimming, fishing.
Boice Cope Park	Curry County	9.5	Boating, beach, lake.
Edson Creek Park	Curry County	75.5	Day use, picnicking.
Garrison Lake	State and County	200.0	Fishing, boating, public boat ramp, swimming, other water sports.
Buffington Memorial Park	Port Orford	21	Ball park, play area, horse arena.
Port of Port Orford	Port of Port Orford (land)	14.9	Boat dock, sport fishing, boat ramp.

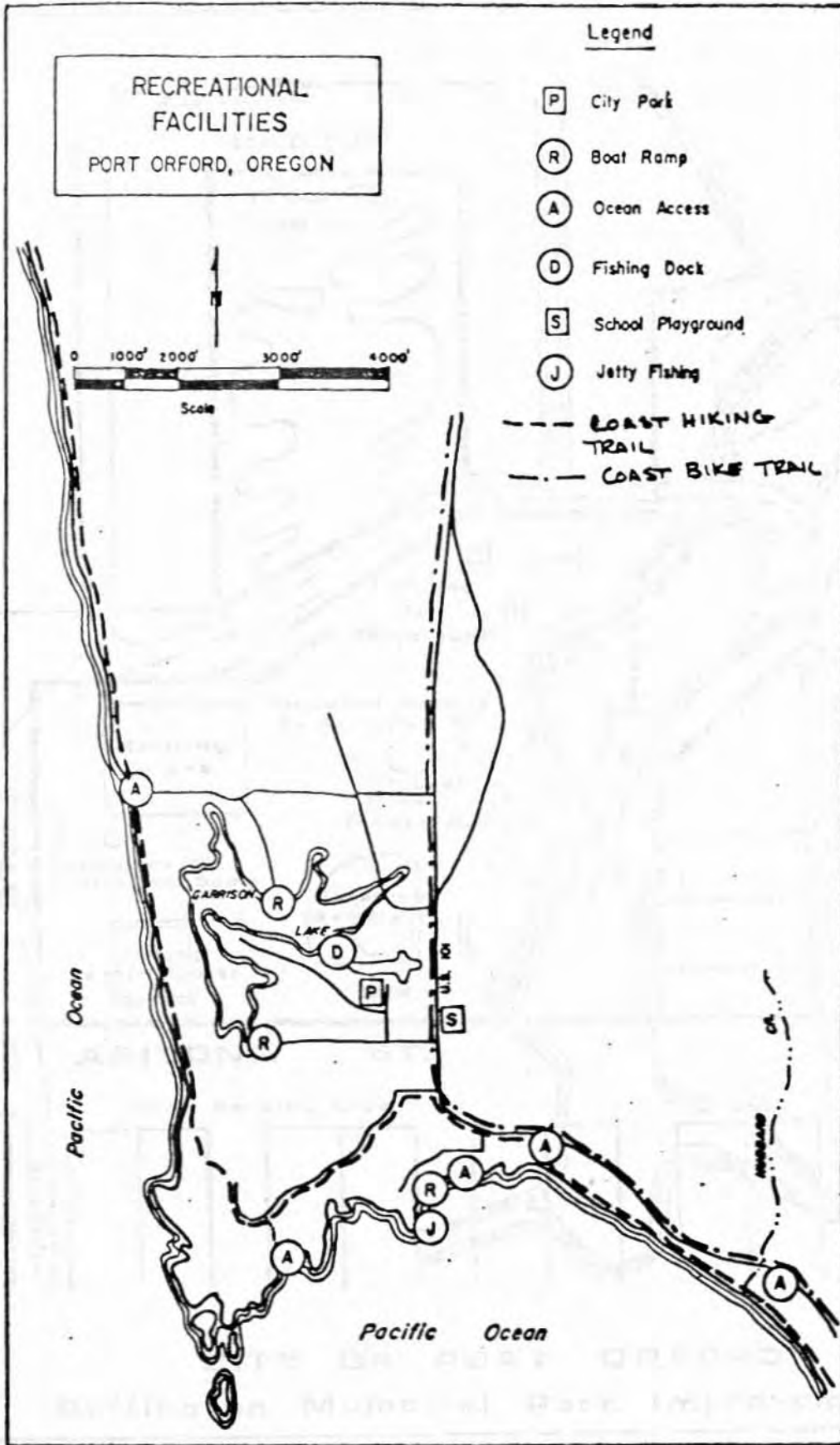
Two state recreational trails pass through the City of Port Orford and can be considered part of the recreational opportunities and facilities available in the city. The Coast Hiking Trail enters the city along the beach at Garrison Lake and then crosses the Orford Heads through the State Wayside. The trail then is defined as Coast Guard Hill Road from the Wayside to US 101 and to Battle Rock City Park where there is access to the beach leading to the southerly city limit. The Coast Bike Trail is defined as Oregon Street (US 101) through the City of Port Orford. Map 11 shows the location of these two trails through the city.

TABLE 6

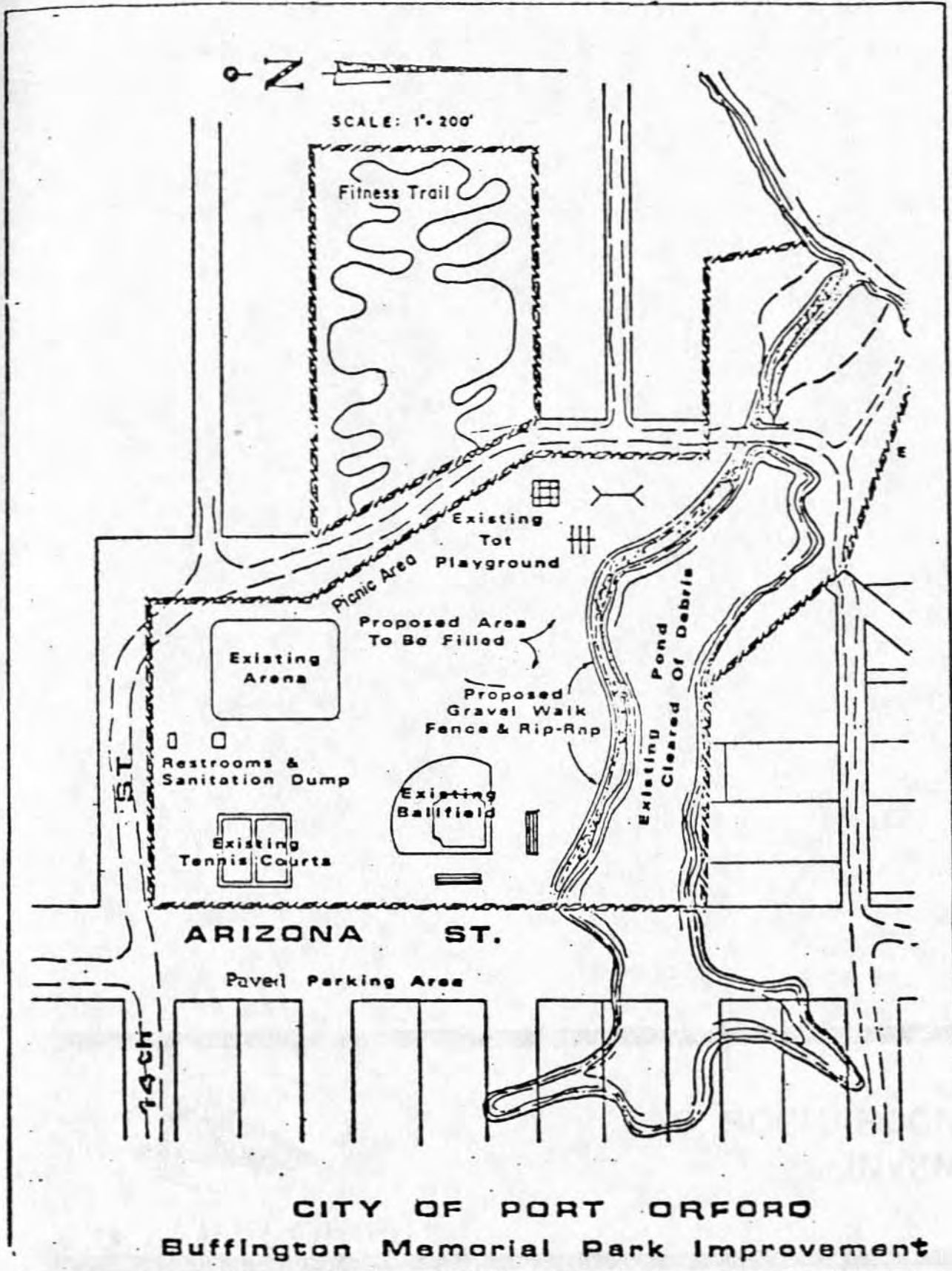
GARRISON LAKE
ANGLER INTERVIEWS

<u>YEAR</u>	<u>ANGLERS INTER- VIEWED</u>	<u>HOURS FISHED</u>	<u>RAINBOW</u>	<u>CUT- THROAT</u>	<u>TOTAL TROUT</u>
1975	46	110	19	0	19
1974	33	83	51	3	54
1973	111	261	108	12	120
1972	302	793	495	284	779
1971	108	220	74	4	78
<hr/>					
5 Year	120	293	149	61	210
Average					
<hr/>					
1970	193	556	203	28	231
1969	11	19	35	0	35
<hr/>					

<u>YEAR</u>	<u>FISH/ANGLER</u>	<u>FISH/HOUR</u>
1975	0.41	0.17
1974	1.64	0.65
1973	1.08	0.46
1972	2.58	0.98
1971	0.72	0.35
1970	1.20	0.42
1969	3.18	1.84



MAP 12



INTRODUCTION

The City of Port Orford is pleased to present this report to the community. This report is a result of a study conducted by the City of Port Orford and the Oregon State University. The study was conducted to determine the socio-economic status of the community and to identify the needs of the community. The study was conducted in 1987 and the results are presented in this report.

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POPULATION CHARACTERISTICS

The population of Port Orford has increased from 1,100 in 1980 to 1,400 in 1987. This represents a 27% increase in population. The population is primarily composed of young families and is growing rapidly.



B. SOCIO-ECONOMIC INVENTORY

SOCIO-ECONOMIC INVENTORY

POPULATION

INTRODUCTION

PURPOSE: This segment analyses characteristics of the population of Port Orford and vicinity from a variety of perspectives. Included in the analysis are population trends for age groups, income, employment, educational levels and mobility. This information is useful in forecasting future population trends and potential characteristics of the population.

FORMAT: The population analysis includes tables, charts and graphs with text identifying significant characteristics of the data.

SOURCE OF DATA: The primary data source used in the preparation of this segment is the U.S. Census of Population. Most of the other publications cited also relied on U.S. Census data. Since census data is universally recognized as the most consistently reliable and valid data, it provides a standard tool for comparison. Population estimates are made between the federal decade census by the Center for Population Research at Portland State University, Portland, Oregon.

POPULATION CHARACTERISTICS

Port Orford's most noticeable characteristic has been the fluctuation in the population. Since 1940, as shown in Table 7, the population declined 10.7 percent in 1950, increased 73.7 percent in 1960 and declined 11.4 percent in 1970.

TABLE 7
CITY OF PORT ORFORD
POPULATION CHANGE
1940 -

<u>YEAR</u>	<u>NUMBER</u>	<u>PERCENT INCREASE/DECREASE</u>
1940	755*	
1950	674*	-10.7
1960	1,171**	+73.7
1970	1,037***	-11.4
1980	1,061****	+ 2.3

*Source: U.S. Bureau of Census, 1950 U.S. Census of Population

**Source: U.S. Census, 1960 4th County Summary Tapes

***Source: 1970 U.S. Census of Population, General Population Characteristics.

****Source: 1980 U.S. Census of Population, General Population Characteristics.

Chart 5 compares the Port Orford population trends with the Port Orford Census County Division (CCD). It is clear that while the surrounding area experiences fewer population fluctuations than the City of Port Orford, the severity of change is much greater. This characteristic of the area around Port Orford shows that the rural population tends to be effected more easily by economic factors which encourage in or out-migration.

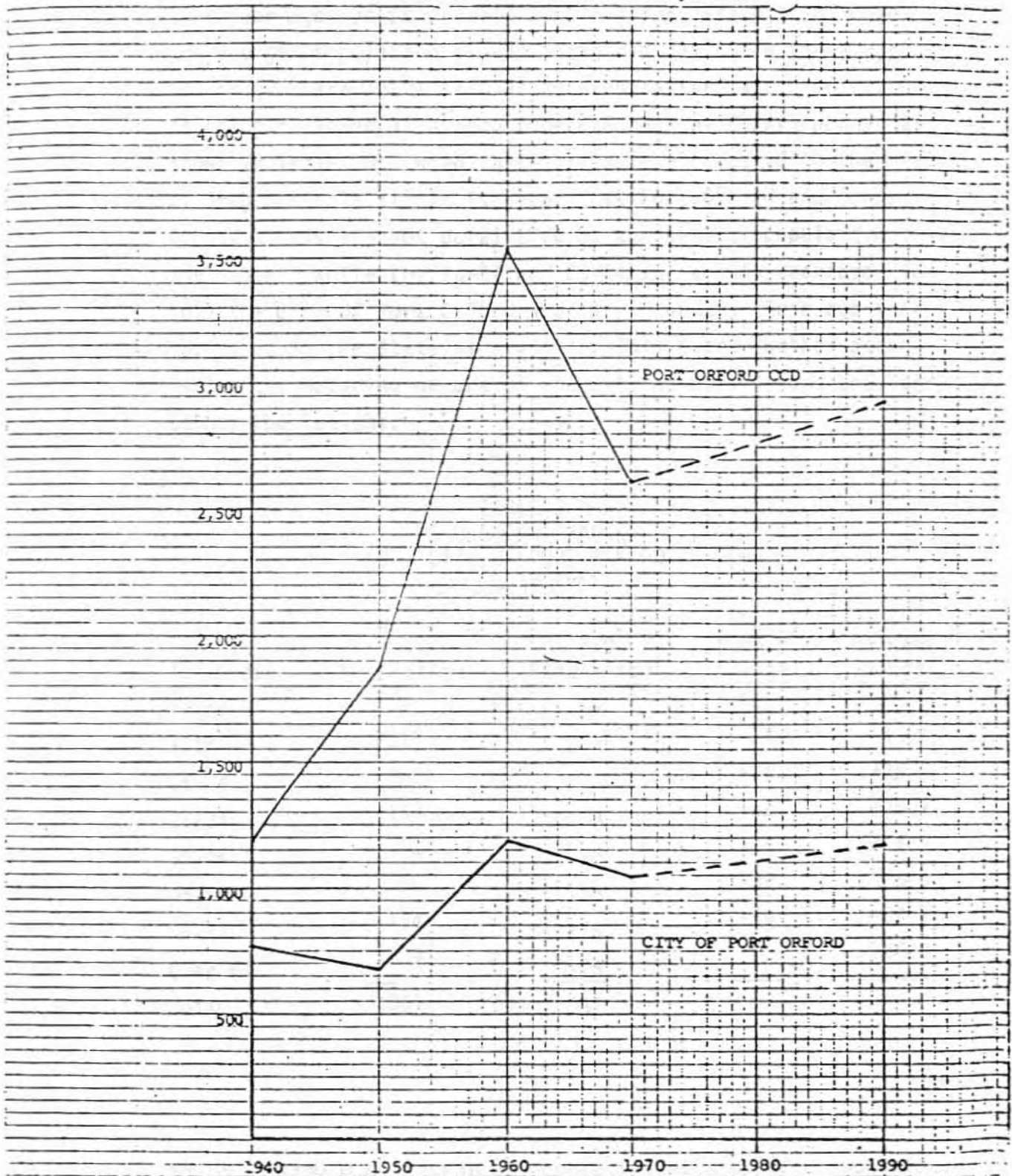
POPULATION PROJECTIONS

To project an area's population into the future, different calculations utilizing a variety of data can be used to establish a projection based only on the data and assumptions made in the narrative of a given projection.

The types of data that have been used in many population projections are the number of employment opportunities now and expected in the future; the amount of present and future in and out-migration; the rate of population growth in the past calculated into the future; and cohort natural increase, by age group, extended into the future utilizing birth and death expectancy tables.

Population projections for purposes of land use planning are generally prepared by charting the historical population data and then projecting this curve into the future. This type of projection is shown in Chart 5 which indicates historic data from 1940 to 1980 and a projection of this curve to 1990. This projection indicates that the population of the city will probably continue to grow and will most likely attain a total of 1100 people by 1990.

GRAPH 5: Population Trends: Port Orford CCD and City of Port Orford with Cohort Projections



SOURCE: U.S. Bureau of Census: 1950, Vol. 1, Number of Inhabitants; 1960 4th Count Summary Tapes; 1970, General Population Characteristics with CCCOG staff computations.

As seen in Table 9, Port Orford's population broken down by 9 year age groups reveals a strong population trend developing. The younger population is declining rapidly while those aged 55 and over are increasing at an even faster rate. This trend is being followed at a more moderate pace by Curry County, as shown in Table 10. When these trends are compared to the State of Oregon (Table 11) it is clear that Port Orford and Curry County trends are not paralleled by the general population of the State. While the 15-24 and 25-34 age groups decreased for both the City of Port Orford and Curry County, these age groups increased in the State as a whole. This trend further accentuates the maturing nature of the City of Port Orford and Curry County populations.

TABLE 9
POPULATION CHANGE
AGE, CITY OF PORT ORFORD
1970 - 1980

<u>Age Group</u>	<u>1980 Population</u>	<u>1970 Population</u>	<u>Number Change</u>	<u>Percent Change</u>
Under 5	90	65	+25	+38.5
5-14	119	202	-83	-41.0
15-24	162	128	+34	+26.6
25-34	150	108	+42	+38.9
35-44	98	92	+ 6	+ 6.5
45-54	99	138	-39	-28.3
55-64	134	178	-44	-24.7
Over 64	209	126	+83	+65.9
TOTAL	1061	1037		

Source: 1980 U.S. Census of Population with staff computations.

TABLE 10
POPULATION CHANGE
CURRY COUNTY
1970 - 1980

Age Cohort	1970	1980	Net Change	% Change 1970-80
0-4	996	1144	148	14.9
5-9	1272	1032	-240	-18.9
10-14	1381	1240	-141	-10.2
15-19	1123	1270	147	13.1
20-24	700	1095	395	56.4
25-34	1460	2347	887	60.8
30-34	1367	1811	444	32.5
35-44	1671	1775	104	6.2
55-64	1641	2406	765	46.6
65+	<u>1395</u>	<u>2872</u>	<u>1477</u>	<u>105.9</u>
	13,006	16,992	3,986	30.6

Source: Center for Population Research and Census,
Portland State University

TABLE 11
 POPULATION CHANGE, STATE OF OREGON
 1970-1980

<u>AGE GROUP</u>	<u>1970 POPULATION</u>	<u>1980 POPULATION</u>	<u>NUMBER CHANGE</u>	<u>PERCENT CHANGE</u>
Under 5	164,060	197,908	33,848	20.6
5 - 14	405,629	391,823	-13,806	- 3.4
15- 24	366,000	463,533	97,533	26.6
25- 34	254,577	481,617	227,040	89.2
35- 44	225,782	304,218	78,436	34.7
45- 54	204,205	242,517	38,312	18.8
55- 64	205,147	248,432	43,285	21.1
Over 64	226,799	303,057	76,258	33.6
TOTAL	2,091,385	2,453,295	361,910	17.3

In further support of the generally older character of the population, consideration of Graph 6 and 7 should be given. These figures are population of an area by age groups and percentages of each sex within those groups to populations of another area. The data used is a breakdown of the 1980 population only. Special attention should be given to the 55-64 age groups in all three cases. The large percentage of people within the City of Port Orford and Curry County is far greater than to the State population. From this data it is assumed that early retirees are in-migrating faster than the 64 and over population.

IMPLICATIONS FOR PLANNING PURPOSES

Planning for the future of Port Orford, based on the population characteristics discussed previously, should be based on several observations.

The rapidly increasing proportion of older people, the declining number of middle age and younger people and the fluctuations in total population all require emphasis when dealing with planning decisions.

Knowing the growing proportion of older people and the expectation that this trend will continue, planning decisions should be directed to the problems that provisions may be needed for special facilities and services to accommodate the present and future needs of the elderly. Such facilities would include specialized activity centers, emergency medical facilities, nursing and rest homes, architectural modifications to public and private facilities to permit use by wheelchairs, and adequate low cost transportation. A sizeable older population will require centrally located services of all kinds with entrances, signs, parking and street crossings all designed to promote safe, efficient useage by this age group. Without proper planning, a sizeable older population will require short term remedies that drain public and private resources.

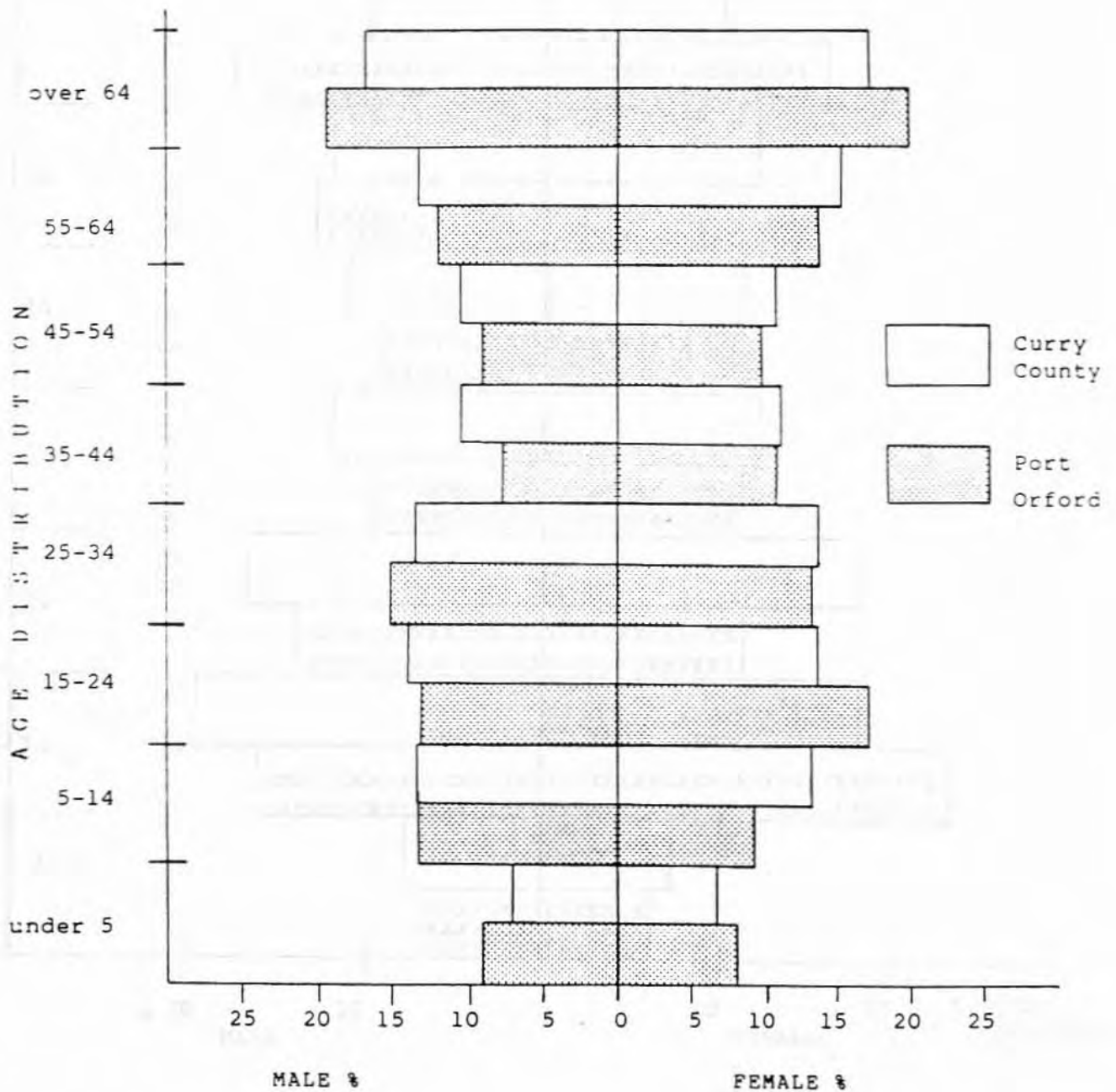
The low percentage of children under 5 and the trend toward further declines indicates a limited need for future educational facilities. This reduced need for educational facilities has been demonstrated in recent years by the dramatic decline in the student population of the local school district. The school district is responding to this change in the local population characteristics by attempting to consolidate this facilities for more efficient operation. The school district should coordinate its plans with the City and County in order to have an orderly transition from its present facilities to a future consolidated facility. The City should seek to help the school district in finding and properly zoning adequate lands for a consolidated school facility.

The population trend shows new development outside the city limits at a more rapid rate than within the city. This development should be encouraged within the city and near existing water and sewer facilities. While a trend of this type would increase the need for services, the services would become more economic and efficient as population density increases. Also, this trend will require gradual extension of water and sewer systems which is far less costly than providing long extensions outside of the city limits. Increased density promotes public safety by allowing faster response time by police and fire stations and allows for increased street lighting which acts as a deterrent to night time crime. Therefore, the city should develop procedures to provide the essential public services which allow for and encourage this trend.

Population trends for Port Orford and the surrounding area suggest that the city will probably remain stable due to the continued influx of older age groups closely matching the out-migration of younger age groups. This prospect implies the need to direct major planning efforts toward accommodating a constant total population which is rapidly becoming older in proportion to other areas, while maintaining and developing additional services that attract the younger population which is necessary to maintain a healthy, deversified community.

An increase in total population and rise in the younger age groups may be dependent entirely on increased activity in the economic sector which should be encouraged by the public and private sectors of the city.

GRAPH 6
 POPULATION AGE-SEX DISTRIBUTION
 PORT ORFORD AND CURRY COUNTY
 1980



Source: U.S.Census of Population (1980)

GRAPH 7
POPULATION AGE-SEX DISTRIBUTION

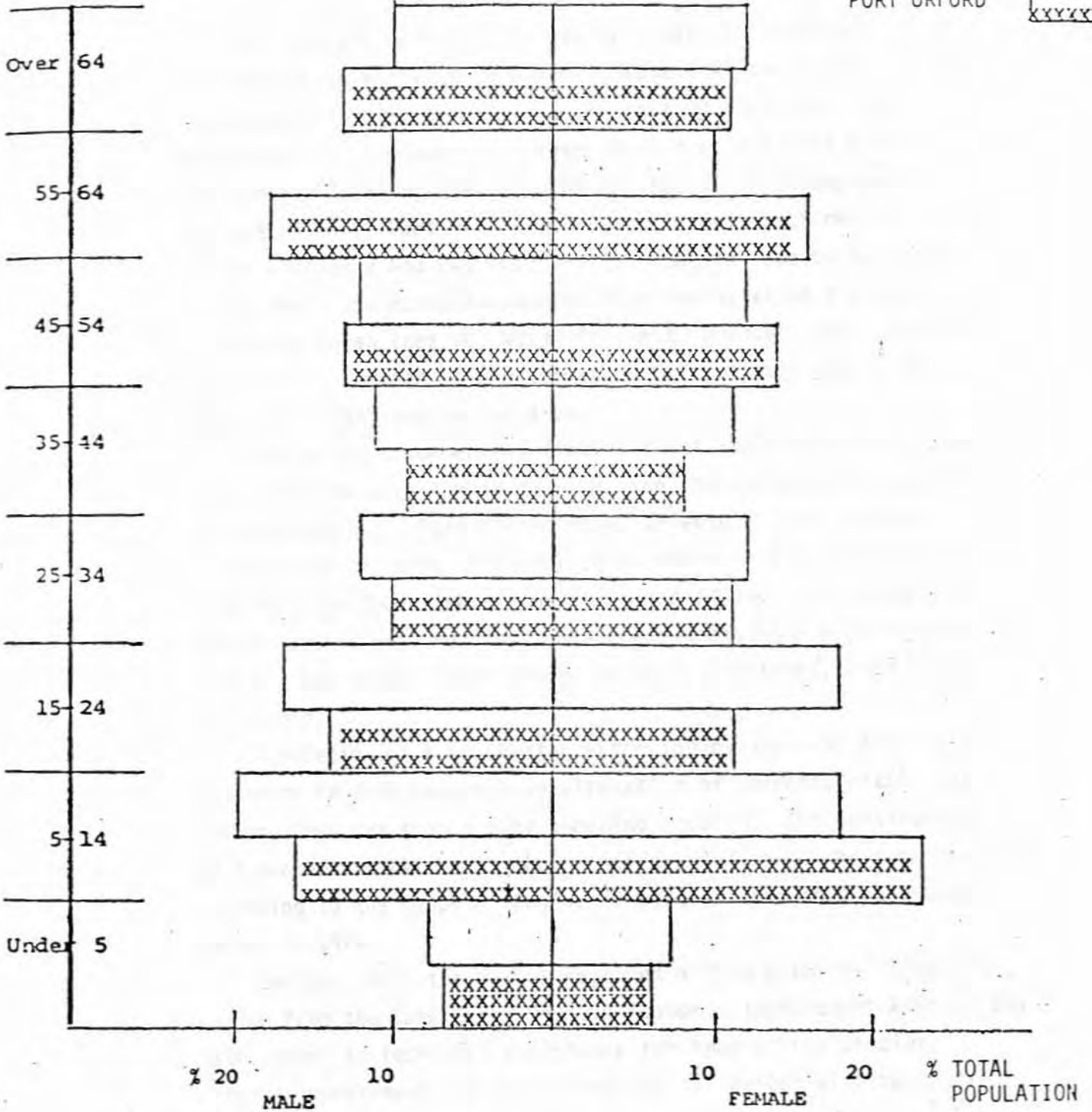
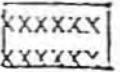
PORT ORFORD AND OREGON

1980

OREGON



PORT ORFORD



SOURCE: U.S. Census of Population

ECONOMICS

Commercial Fishing and Seafood Processing Port of Port Orford

Port Orford harbor is formed by a natural cover protected from the north and west by a rock headland which extends seaward in a southerly direction from approximately one mile. It is the only harbor in southwestern Oregon that does not have a bar at the entrance that is closed to navigation during heavy storms. Because of this, Port Orford is used as a harbor of refuge during northerly and westerly winds. However, due to southerly winds, boats are normally removed from the water on trailers and parked in an area set aside for that purpose. Boat parking is currently limited to approximately fifty spaces due to the physical limitations of the area.

The harbor's commercial fishing fleet and processing facilities, together with summer tourism, are the economic mainstays of the community. Port Orford ranks seventh out of 16 coastal Oregon ports in terms of food fish poundage landed, and in dollars paid for food fish at the fishermen's level. Historically, the harbor has received less government assistance with maintenance and development than sister ports in Brookings, Gold Beach, and Bandon.

Completion of a breakwater extension by the U.S. Army Corps of Engineers in 1968 resulted in alteration of currents within the harbor, thus creating a sand shoaling problem. The construction of a second breakwater is the proposed solution to the sand shoaling, according to the Corps of Engineers studies conducted on a model harbor in 1974.

In May, 1976, the harbor received a "top priority" classification from the Coos-Curry-Douglas Economic Improvement Association with regard to technical assistance for feasibility studies. General improvement and development of the harbor will be studied when the funds become available.

The Port of Port Orford is unique in that it is the only harbor between San Francisco and Seattle without a bar to cross. Rough bar conditions along the Northwest coast frequently close other ports to boat traffic, while Port Orford remains fishable.

The absence of a river entering the harbor, and consequently the lack of an estuary, indicates that development and dredging in the harbor can be accomplished with minimal environmental damage in comparison to other harbors.

Construction of a breakwater extension by the Corps of Engineers in 1968 resulted in alteration of current patterns within the harbor. These new patterns have resulted in extensive littoral drift which has created severe sand shoaling, a situation which makes the port difficult to operate in at certain times of the year.

To deal with the sand shoaling problem, the Corps of Engineers schedules periodic visits by the dredge Sandwick to clear the turning basin for boat operations. In June, 1974, an investigation of remedial plans for prevention of harbor shoaling at Port Orford was completed by the Hydraulics Laboratory at the U.S. Army Engineer Waterways Experiment Station in Vicksburg, Mississippi. As a result of the study, a second breakwater was recommended for Port Orford to eliminate the shoaling problem.

The Port Commission of the Port of Port Orford has formed a Citizens Advisory Committee for Port Planning to assist them with figuring an adequate cost-benefit ratio to justify breakwater construction, and to assist with planned development of the Port.

In May, 1976, the Coos-Curry-Douglas Economic Improvement Association designated technical assistance and feasibility studies for Port Orford harbor as the number one priority for Curry County. Tentative subjects for the feasibility studies include new dock construction, new breakwater, new commercial boat facilities, new facilities for recreational boaters, and harbor development in general.

From 1955 through 1965, over five million dollars were expended by the Corps of Engineers on Brookings, Gold Beach, and

Bandon harbors. During the same period, the Port Orford harbor received zero in Corps expenditures. (See Table 15).

The abundant seafood resources of the coast makes any port city in the region a suitable location for commercial fishing and seafood processing. However, the lack of a large boat basin and a poor jetty crossing have kept the development in this category low. Approximately thirty-five to forty commercial vessels operate from the Port of Orford during the winter months which support a processing plant and several fish buyers for other processing plants.

During the summer months the number of commercial vessels increase (but only to a slight degree) to approximately fifty vessels due to the limited capabilities of the Port facilities.

Considering the severe limitations placed on commercial fishermen in the Port Orford Harbor, it is interesting to note Table 12, which shows port catches along the South Coast and the State. Port catches in Port Orford in 1970 and 1972 are a significant percentage of the District catches.

Increasing the harbor facilities and improving the shoaling conditions would allow more commercial fishermen to utilize the Port. This would increase catches, increase local employment at the seafood processing plant and allow it to remain operational for a longer period each year.

The seafood processing plant, operated by Blanco Fisheries, is a large seasonal employer for Port Orford, during the peak season of April through October this plant employs thirty to forty people. However, the seasonal nature of this plant requires that during non-peak periods only one to three employees are required.

This means that the plant is under utilized for long periods of time, and because of hazardous shoaling conditions, may even slow down for periods during summer months. Commercial vessels can not get in or out of the harbor in weather conditions that are not severe enough to close similar ports along the coast.

These two interrelated activities, while under extreme handicaps, continue to provide a high percentage of the fish catch compared to other ports with better facilities. As seen in Table 13, Port Orford consistently catches more fish than Gold Beach and Bandon. Both the Gold Beach and Brookings harbors have better facilities and receive more Corps of Engineers support, since 1966, than does Port Orford. (See Table 15.)

TABLE 12

Ex-Vessel Landing for Southern Oregon Ports, 1983

1. Coos Bay	\$8,280,000
2. Brookings	2,165,000
3. <u>PORT ORFORD</u>	1,282,000
4. Winchester Bay	1,211,000
5. Gold Beach	315,000
6. Bandon	88,000

Sources for all data were supplied by the Oregon Department of Fish and Wildlife.

TABLE 13

COMMERCIAL FISH CATCH BY SPECIES FOR

SOUTHERN OREGON PORTS 1975 - 1983

Species	1975	1976	1977	1978	1979	1980	1981	1982	1983
Groundfish	7,480	8,949	5,210	9,637	20,768	15,052	22,081	26,749	30,468
Shrimp	10,256	8,182	15,783	25,590	11,882	13,500	9,550	6,869	1,433
Crab	2,079	5,240	10,876	6,207	6,238	9,469	3,927	3,877	2,257
Tuna	4,058	759	863	2,910	360	589	2,212	843	558
Chinook	2,306	1,336	2,560	1,080	1,969	1,679	1,195	2,015	454
Coho	2,300	5,135	1,179	1,511	2,512	832	1,370	1,424	512
Scallops	0	0	0	0	0	0	7,858	664	142
Total	28,479	29,601	36,471	46,935	43,729	41,121	48,193	42,441	35,824

a) Landings are in pounds round (whole) weight

b) Figures are pounds landed at each port, not the poundage that was processed.

c) Ports in Lane, Coos and Curry Counties

Source: State Department of Fish and Wildlife

TABLE 14

CATCHES OF SOUTHERN OREGON PORTS AS PERCENT OF
TOTAL STATE CATCH BY PORT IN 1972 AND 1983

	<u>Volume</u>	<u>Value</u>	<u>Percent of State Value</u>
Coos Bay			
1972	16,205,718 lbs.	\$ 3,628,000	15.1
1983	26,170,000 lbs.	8,280,000	22.2
Brookings			
1972	3,695,544 lbs.	\$ 837,000	3.5
1983	4,693,000 lbs.	2,165,000	5.8
Port Orford			
1972	2,015,638 lbs.	\$ 435,000	1.8
1983	2,744,000 lbs.	1,282,000	3.4
Bandon			
1972	253,356 lbs.	\$ 123,000	.5
1983	56,000 lbs.	88,000	0.2
Gold Beach			
1972	183,859 lbs.	\$ 105,000	.4
1983	517,000 lbs.	315,000	0.8
Southern Oregon			
1972	22,354,115 lbs.	\$ 5,128,000	21.3
1983	35,824,000 lbs.	13,341,000	35.9
State			
1972		\$24,001,000	100.0
1983	99,714,000 lbs.	\$37,203,000	100.00

Source: Oregon Fish Commission, VIZ., CCD Economic Improvement Association.

The Port of Port Orford identified the following needed navigation improvements which are normally financed by federal funds:

1. To construct an enclosed breakwater at an estimated cost of \$12-15 million.
2. To enlarge the existing turning basin (size to be determined by the size of the boat basin to be developed behind the new breakwater).

The identified needs are established following the Port Plans and goals which are:¹

1. Construct and backfill a sea-wall and obtain additional acreage for expansion.
2. The construction of a companion breakwater to the one existing to enclose the harbor.
3. To acquire authorization of an entrance channel and an expanded turning basin not less than 16 feet deep.
4. The establishment of a small boat basin, launching facilities, parking, and other supporting shoreside facilities.

Conditions of Navigation Projects and Harbor Facilities in the Port of Port Orford²

1. The harbor lacks suitable breakwater protection and an established entrance channel.
2. There is a shortage of suitable small boat moorage and related facilities.

The table listed below shows the percentage of boats moored in local harbors having come from other ports compared to boats moored locally. Port Orford shows that virtually all boats moored in the harbor are using the Port as a home base with only a small percentage (5 percent) of moored boats coming from another area.

¹Oregon Coastal Port Development Plan, February, 1975, pg. 32

²Ibid., pg. 14

TABLE 16

ORIGIN OF BOATS MOORED IN COOS AND CURRY COUNTY PORTS

<u>Port</u>	<u>Percent Local</u>	<u>Percent Outside Local Area</u>
Coos Bay	65%	35%
Coquille (Bandon)	44%	56%
Port Orford	95%	5%
Rogue (Gold Beach)	58%	42%
Brookings	54%	46%

Source: These figures received from local Ports and published in the Oregon Coastal Port Development Plan, February, 1975, pg. 22.

The following table shows that Port Orford is rapidly losing its capability to harbor fishing vessels due to the increasing hazards of shoaling. When compared to other Ports the decrease in fish catches during the four reporting periods shows that no other Port is experiencing the same decline.

TABLE 17

CATCHES OF COOS AND CURRY PORTS
1972, 1973, 1974 and 1983
(in pounds)

<u>PORT</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1983</u>
Coos Bay	16,205,718	18,303,365	15,720,215	26,170,000
Bandon	253,356	517,660	668,065	56,000
Port Orford	2,015,638	2,780,762	1,324,921	2,744,000
Gold Beach	183,859	216,072	223,805	517,000
Brookings	3,695,544	3,753,570	3,372,504	4,693,000
TOTAL	22,354,115	30,625,982	23,693,860	34,180,000

Source: (1) Oregon Fish Commission, Viz, CCD Economic Improvement Association, Phase I, Overall Economic Development Plan, May 1972, pp.67.

(2) Oregon Fish Commission, Viz, Overall Economic Development Plan, Annual Update and Progress Report, CCD Economic Improvement Association, March, 1975, pp. 20.

As shown below, Port Orford has received Corps of Engineers funds in a low proportion to the amount of fish catches it brings in. Bandon is the only Port which is identified as receiving less funding by this data.

TABLE 18
COOS AND CURRY COMPARISON OF CORPS
OF ENGINEERS EXPENDITURES RELATIVE
TO AMOUNT OF FISH CATCHES PER PORT

Port	Fish Catches (lbs) TOTAL (1) 1966-70, 1972, 1974	TOTAL Corps Expenditures(2) 1966-1974	Corps Expenditures per lb. of Fish*
Gold Beach	775,980	\$ 2,714,219	\$3.50
Bandon	2,781,844	503,472	0.18
Coos Bay	117,263,117	9,601,900	0.82
Brookings	29,869,776	2,200,651	0.74
PORT ORFORD	18,483,752	1,106,624	0.60
District Total	169,174,469	16,126,866	0.95

Sources: (1) Oregon Fish Commission, VIZ, Overall Economic Development Plan, Annual Update and Progress Report, CCD Economic Improvement Association, March, 1975, pg. 20, and Oregon Fish Commission annual Fish Catch reports, 1966-1969.

(2) Corps of Engineers Annual Expenditures in Coos and Curry Counties, 1955-1974.

RETAIL CENTER

Port Orford serves as a retail center for an area bound by Coos County to the north, the coastal foothills to the east and a line from Humburg State Park roughly to Iron Mountain to the south. While this geographic area is large, the population it serves (roughly 2,600) is low.

As a result, the services offered within the city answer only the primary needs of the population which are required for day-to-day living. For a larger range and volume of service, the people usually travel to the Coos Bay/North Bend area which is the major service center for the entire south coast region. The trade and service activities for Port Orford are primarily located along Highway 101 through most of the city with the most concentration of businesses near the south end of the city.

The people supporting the businesses of Port Orford obtain their income primarily from fishing, forestry, agriculture, and tourism with a growing proportion of retirement age population. Therefore, the businesses of Port Orford correspond to the fortunes of the four basic economic activities. During the past few years there has been a continuing decline in wood products and commercial fishing employment which has caused a loss of workers and their families. This loss, however, has been more than balanced by an influx of retirees who are not dependent upon local jobs for employment. Thus the commercial area of Port Orford remains an important retail center for the local residents which is reflected by the construction of two new grocery stores in the city during the past few years.

TOURISM, RECREATION, AND RETIREMENT

Port Orford's growing but highly untapped economic functions are those related to tourism, recreation, and retirement. Port Orford has many unique characteristics which make it ideally suited for these activities. The City is situated on a bluff which extends into the Pacific Ocean, expanding the availability

of beach access to the Southern and Western sides of the City. Port Orford is also located adjacent to Garrison Lake, which is a major fresh water lake in Curry County. Furthermore, Port Orford's location on U.S. Highway 101 (ited as one of the most scenic highways of its kind anywhere in the world) and by the location of a major state park and historic Battle Rock, enhance the qualities of Port Orford.

These attractions bring numerous visitors through the City each summer. Within the City this activity is primarily restricted to Highway 101 and Battle Rock City Park. These visitors support only a few businesses located along the highway and overnight lodgings located on the bluff overlooking the ocean. Most of the tourist activity is not "distination" oriented. It is "drive-through", made up of people stopping at Port Orford while traveling along the coast. Therefore, the ability of the City to capture this business is directly related to its ability to incuce people to stop while traveling through. Within the present structure of Port Orfords's tourist trade, businesses interested in capturing this trade must be located near the scenic attractions along highway 101 or rely on signs to route the travelers to the businesses. In order to induce a higher percentage of tourists to stop, planning strategies should be directed to improving the existing methods of attracting tourists and adopting new methods. Combinations of strategies could be followed to allow individual initiative. Individual initiative is an important part of Port Orford's development. This is shown clearly in the interesting inventory of tourist connected activities which presently operate in the City.

TOURIST RELATED ACTIVITIES IN PORT ORFORD

1. Five motels with a total of 60 units.
2. A modern fishing dock.
3. An exercise lot for horses.
4. A city park with tennis courts.

5. Port Orford Heads State Wayside just southwest of the city limits.
6. Two beautiful beach access points.
7. Garrison Lake and two public boat ramps.
8. Seven restaurants catering to a wide variety of tastes.
9. Stores featuring crafts or antiques.
10. Local craftsmen who maintain shops.
11. Five churches.

The Port Orford area is attracting an increasing percentage of retired people for the reasons that attract tourists. However, the economic impact of retired people on the economy is substantially different from the tourist trade. Attraction to tourist businesses would not be the case for retired residents after living in the area for a short period of time. The retired individual usually relies on a fixed income and supports the economy with purchases more on the necessity level or for things generally related to that age group. Also, while the demand for businesses and public services would be the same for all age groups (with the exception of schools), the "multiplier effect" would be less on retirement income than for working residents. Most of the tourist and retired resident income generated to the area is within the City as there are few businesses outside of the City that attract these groups. This puts the City in the advantageous position of having the only tourist services between Gold Beach and Bandon.

THE QUALITY OF THE ECONOMY

The quality of an area's economic system is dependent upon how well that system provides for the well-being of the people of that area. A common measure of that quality is the income levels of the area's residents. Table 19 shows the family income distributions within income categories and compares the Port Orford CCD (Census County Division, an area bounded by the Curry County line to the north and east, the Pacific Ocean to the west and to the south a line running roughly, from Humbug Mountain to Iron Mountain) to the income groups of other CCS's in the County; Curry County as a whole, District 7, and the State.

and to the south a line running roughly, from Humbug Mountain to Iron Mountain) to the income groups of other CCD's in the County; Curry County as a whole, District 7, and the State.

As shown in Table 19, there are more families with an income under \$3,999 than is generally true in the County and fewer families with an income in excess of \$12,000. While only 21% of the families in the Port Orford CCD have incomes in excess of \$12,000, 25% do in Curry County and 32% do in the State. On the lower income level, 26% of families in the Port Orford CCD have incomes less than \$3,999 per year while only 19% in Curry County and 14% in the State are in this same income category.

There are, however, proportionately more people in the Port Orford CCD in the \$6000-\$11,999 per year range than in either Curry County or the State. Consequently, the income level in the Port Orford CCD seems to be correspondingly lower. The number of families in the \$6,000-\$11,999 per year range seems to weight the mean family income figure in such a way that mean family income alone does not accurately reflect family income characteristics as shown on Map 13.

Another indicator of the income characteristics of an area is the proportion of the population below poverty level. Table 20 details the number and percent of families below poverty level in the CCD's of Curry County.

The Port Orford CCD has a higher rate of families below poverty level than the County as a whole and the State as a whole. Sixteen percent of the families in the Port Orford CCD are below poverty level, a percent matched by the Harbor CCD but not exceeded by another area within the County.

MAP 13

CURRY COUNTY

Mean Family Income by CCD

1980

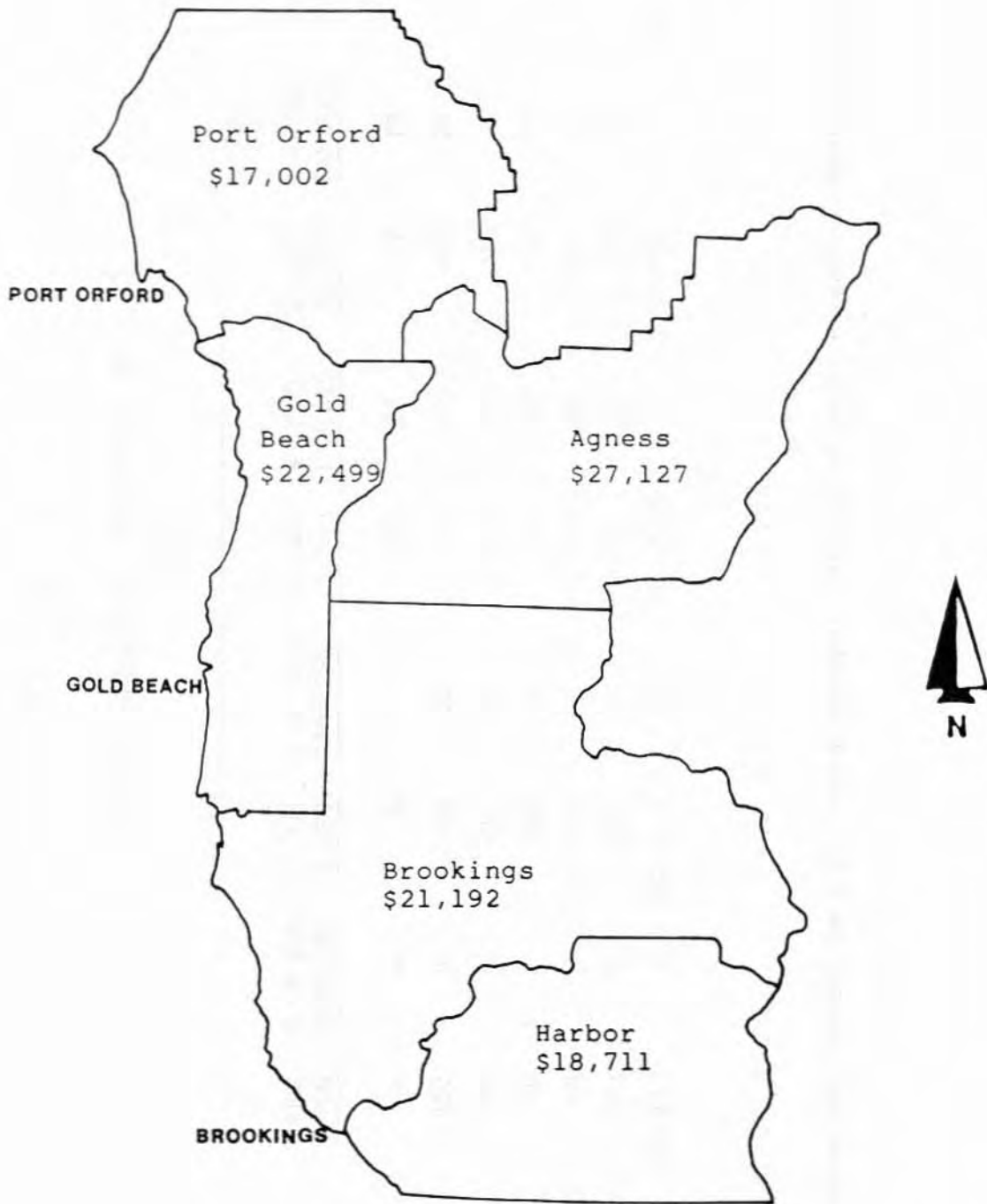


TABLE 19

FAMILY INCOME DISTRIBUTION BY CCD

1980

	<u>UNDER 4,999</u>	<u>% OF ALL FAMILIES</u>	<u>5,000 9,999</u>	<u>% OF ALL FAMILIES</u>	<u>10,000 19,999</u>	<u>% OF ALL FAMILIES</u>	<u>20,000 29,999</u>	<u>% OF ALL FAMILIES</u>	<u>30,000 & OVER</u>	<u>% OF ALL FAMILIES</u>
Agness	-	-	6	-	11	17	6	17	12	34
Brookings	153	8	194	11	710	39	403	22	347	19
Gold Beach	66	5	210	15	510	37	316	23	273	20
Harbor	86	7	234	19	463	37	297	24	162	13
Port Orford	68	8	211	25	323	38	122	14	119	14
Curry County	373	7	855	16	2,017	38	1,144	22	913	17
State	43,059	6	91,652	13	216,514	31	189,486	27	163,017	23

Source: Income and Poverty Data for Racial Groups, 1980 Oregon State Extension Service, with staff computation.

TABLE 20

INCIDENCE OF POVERTY FOR FAMILIES
 IN COOS AND CURRY COUNTIES BY CCD
 1970

	<u>Number of Families</u>	<u>Number of Families below poverty level</u>	<u>Percent of Families below poverty level</u>
Agness	35	0	0
Brookings	1,807	195	11
Gold Beach	1,375	72	5
Harbor	1,242	94	8
Port Orford	843	114	14
Curry County	5,108	475	9
State	542,483	46,456	9

Source: Income and Poverty, Data for Racial Groups,
 Oregon State Extension Service, with staff
 computations.

The overall income characteristics of the Port Orford area appear to be lower than those of the County as a whole with large percentages of lower income and \$6,000-\$11,999 groups and a significantly low percentage in the two remaining groups. This trend supports the population figures on immigration of moderately comfortable retirees, a small working class and a sizeable number of poverty level families.

ECONOMIC PLANNING IMPLICATIONS

In consideration of the above data, planning considerations should be focused on attracting a wider variety of economic activity into the area. To formulate a realistic solution, the community must take into consideration what a potential developer utilizes in determining the feasibility of locating a business or industry within a given area.

Table 21 describes in detail the educational levels of persons 25 years of age and older within the Port Orford CCD in 1965 and compares the data to Curry County. As shown, the Port Orford area has 64.4% of the male and 46.2% of the female population with less than a high school degree. Curry County in comparison, has 52.7% of the male and 43.2% of the female population with less than a high school degree. This data points to a high percentage of workers with educational backgrounds geared to unskilled or semi-skilled employment. It is also more significant in that the educational attainment level of Curry County as a whole is lower than that of the State as a whole.

TABLE 21

PERSONS 25 YEARS AND OLDER BY
YEARS OF SCHOOL COMPLETED
1980

SCHOOL COMPLETED	PORT ORFORD CCD		CURRY COUNTY	
	#	%	#	%
Elementary (0-8 yrs)	333	18.2	1547	13.8
High School (1-3 yrs)	303	16.6	2028	18.1
High School (4 yrs)	645	35.4	4420	39.4
College (1-3 yrs)	342	18.8	1954	17.4
College (4 yrs +)	201	11.0	1262	11.3
Total	1824	100.0	11211	100.0

Source: U. S. Census of Population , 1980

Another factor in planning is the rate of mobility of the population. Table 22 details the residence of the population in Port Orford CCD and in Curry County in 1965 which is fifteen years prior to the 1980 Census.

TABLE 22
COUNT OF PERSONS 5 YEARS + BY RESIDENCE IN 1965

	<u>Port Orford CCD</u>	<u>%</u>	<u>Curry County</u>	<u>%</u>
Same House	1043	41.5	6,644	41.7
Different House:				
Same County	572	22.8	3,496	22.0
Different County:				
Same County	418	16.6	2,391	15.0
Different State: Northeast	0	0.0	62	0.4
Different State: North Central	91	3.6	275	1.7
Different State: South	60	2.4	201	1.3
Different State: West	326	13.1	2,721	17.1
Abroad,	0	0.0	125	0.8
TOTAL	2,510	100.0	15,915	100.0

The source of the above table is the U.S. Census of Population, 1980.

In comparison to Curry County, the Port Orford CCD has a population which appears to be more stable. This fact may be significant to perspective developers dependent on a stable work force or market areas.

Thus, important economic planning considerations should encompass the following elements:

1. Educational levels of the area in relation to possible economic development.
2. The relative stability of the area's population and the implications for possible employers.
3. The existing resources, both social and natural, and the possible attractions they may have for potential developers.

TRANSPORTATION

CAPE BLANCO AIRPORT

The Cape Blanco State Airport was originally constructed by the military for coastal air defense. For this reason the 5100 foot runway and taxi strips are capable of handling aircraft of greater size than any other Oregon field on the coast south of North Bend. The airport is located approximately six miles north of Port Orford, adjacent to Floras Lake State Park.

After the military discontinued use of this field, the State of Oregon acquired it and it now is operated as a Land Access field for recreational flyers. Due to the caliber of its construction, however, it is capable of reclassification to a Basic Utility or Basic Transport airport.

As shown in tables 24-27, the field is fully operational and features automatic runway lighting, lighted beacon, and wind indicator.

The 1983 Oregon Aviation System Plan (OASP) classifies the Cape Blanco State Airport as a "Non-system state owned" facility. This classification indicates that the facility will be retained in the state airport system but will receive funds only for maintenance and safety-related projects pending transfer of the facility to local ownership or other disposition. The OSAP does not include any airport improvement projects for Cape Blanco State Airport through the 1991 planning period.

The facility is currently used as a pick-up facility for air taxi operators and air ambulance services as well as recreation oriented flyers. However, the field has the capacity to serve large propeller aircraft as well as executive jets.

The last table shows the actual utilization of the airport projected to 1990. These figures are the prime factors involving reclassification of the airport to higher categories. Therefore, strategies to build useage of the facility should be explored.

TABLE 24

PORT ORFORD-AIR TRANSPORTATION

Inventory of Facilities and Service-Cape Blanco Airport. (1)

1972 NASP Airport Classification.....	Not Classified
Ownership.....	State of Oregon
Classification.....	Land Access**
FFA Site Number.....	19422
Acres.....	166
Width and Length (ft).....	5,100 x 150
Surface.....	Asphalt
Lights.....	Test Basis**
Strength; single wheel.....	100,000 lbs.
dual wheel.....	190,000 lbs.
dual tandem.....	340,00 lbs.

*This classification includes all airports serving recreational and open land areas only.

**Recently installed.

(1) Oregon Aviation System Plan, Technical Report, 1983

TABLE 25
CURRY COUNTY AIR FACILITIES

	<u>Gold Beach</u>	<u>Brookings</u>	<u>Cape Blanco</u>
Ownership.....	Port of Gold Beach	State	State
Acres.....	48	90	166
Runways.....	1	1	1
Surface.....	Asphalt	Asphalt	Asphalt
Lights.....	Low intensity	Low intensity	Test Basis*
Width & Length....	3,200 x 75	2,600 x 60	5,100 x 150
Strength:			
Single Wheel....	21	8	100
FBO Services.....	fuel sales		
Navigational aids..	NDB	Beacon	Beacon*/ Runway lights*
	Beacon	Runway lights	Wind indicator
	Wind Indicator	Wind Indicator	
	Unicom	Unicom	
	Runway lights		
Average Annual			
Precip.....	80.33	79.03	65.70
Average Temp. (f)			
Max. (July).....	66.7	65.7	57.7
Min. (Jan).....	40.6	40.6	41.9

Source: Draft Technical Report, Oregon Aviation Systems Plan, 1983

*Beacon and Runway lights recently installed.

... following table compares the use of South Coast Airports.

TABLE 26

AIRPORTS AND FLIGHT STATISTICS
IN PROJECT AREA VICINITY

1979

<u>Airport Name</u>	<u>County</u>	<u>Nearest City</u>	<u>Total Av. Yrly. Operations</u>	<u>Ownership</u>	<u>Resident Aircraft</u>	<u>No. Yearly Commercial Flights</u>
1. Bandon State	Coo	Bandon	37,000	Pu	38	0
2. Brookings State	Curry	Brookings	21,900	Pu	30	0
3. Cape Blanco State	Curry	Port Orford	3,000	Pu	6	0
4. Gold Beach Municipal	Curry	Gold Beach	33,000	Pu	25	0

Pu - Public Ownership

Source: Oregon Aviation System Plan, Vol. I Inventory, Oregon Dept. Transportation Aeronautics Division, 1983, Table I-5

TABLE 27

PORT ORFORD-AIR TRANSPORTATION

Cape Blanco Airport

p. 160 1. Airfield Capacity-number of flight functions possible

Hourly capacity.....30 (Visual flight rules)
Annual capacity.....61,000 (Visual flight rules)

p. 165 2. Number of Flight Operations Expected

1977.....2,000
1980.....2,000
1990.....3,000

p. 176 3. Airport Capacity Utilization Expected

1972.....2%
1977.....2%
1980.....3%
1990.....5%

- Source: 1. Oregon Aviation System Plan-Technical Report, 1974, p. 160
2. Ibid, p. 165
3. Ibid, p. 176

The City of Port Orford is pleased to announce the results of the 1997-98 bond referendum. The voters have approved the issuance of \$1,000,000 in general obligation bonds for the purpose of financing the construction of a new municipal building. The bonds will be sold at a 5% interest rate and will mature over a 20-year period. The City will be responsible for the payment of the principal and interest on the bonds. The City will also be responsible for the payment of the principal and interest on the bonds.

APPROVED AND ORDERED: _____
 Mayor

The following table shows the estimated annual payments for the bonds:

Year	Principal	Interest	Total
1997	50,000	50,000	100,000
1998	50,000	49,000	99,000
1999	50,000	48,000	98,000
2000	50,000	47,000	97,000
2001	50,000	46,000	96,000
2002	50,000	45,000	95,000
2003	50,000	44,000	94,000
2004	50,000	43,000	93,000
2005	50,000	42,000	92,000
2006	50,000	41,000	91,000
2007	50,000	40,000	90,000
2008	50,000	39,000	89,000
2009	50,000	38,000	88,000
2010	50,000	37,000	87,000
2011	50,000	36,000	86,000
2012	50,000	35,000	85,000
2013	50,000	34,000	84,000
2014	50,000	33,000	83,000
2015	50,000	32,000	82,000
2016	50,000	31,000	81,000
2017	50,000	30,000	80,000
2018	50,000	29,000	79,000
2019	50,000	28,000	78,000
2020	50,000	27,000	77,000
2021	50,000	26,000	76,000
2022	50,000	25,000	75,000
2023	50,000	24,000	74,000
2024	50,000	23,000	73,000
2025	50,000	22,000	72,000
2026	50,000	21,000	71,000
2027	50,000	20,000	70,000
2028	50,000	19,000	69,000
2029	50,000	18,000	68,000
2030	50,000	17,000	67,000



II. PLAN SECTION

City of Port Orford

U.S. HIGHWAY 101: TRAFFIC COUNT DATA

In order to determine the highway transportation needs along U.S. Highway 101 it is necessary to identify the past and present levels of use the highway facility serves.

Table 28 identifies the average number of vehicles crossing two points on Highway 101, by month, over a four year period. The most obvious pattern to this data is the small degree of traffic count changes in any month over the four year period. Therefore, gasoline prices and shortages seem to have had little impact through 1974 on the amount of traffic flow over these two points.

TABLE 28
AVERAGE DAILY TRAFFIC COUNT (ADT) IN
TWO LOCATIONS, BY MONTHS, 1971-74

	<u>U.S. 101 - 2 Miles North of California Line (ADT)</u>			
	<u>(1)1971</u>	<u>(2)1972</u>	<u>(3)1973</u>	<u>(4)1974</u>
January	2,531	2,533	2,919	2,542
February	2,720	2,707	3,313	2,801
March	2,910	3,227	3,517	3,018
April	3,263	3,188	3,781	3,501
May	3,803	3,727	4,117	4,146
June	4,154	4,651	4,835	4,704
July	5,653	5,130	5,200	5,786
August	6,070	5,624	5,800	6,399
September	4,590	5,000	4,738	5,136
October	3,422	3,762	3,881	3,933
November	2,949	3,289	3,198	3,285
December	2,871	2,935	2,885	3,170

(Table 28 - Continued)

	<u>(1)1971</u>	<u>(2)1972</u>	<u>(3)1973</u>	<u>(4)1974</u>
January	2,636	2,915	2,855	2,442
February	2,890	3,899	3,294	2,700
March	3,086	3,788	3,463	3,080
April	3,393	3,424	3,628	3,446
May	3,781	3,707	3,761	3,843
June	4,250	4,577	4,204	4,500
July	5,487	5,384	5,068	5,208
August	5,492	5,775	5,501	5,858
September	4,410	4,469	4,509	4,752
October	3,643	3,566	3,989	3,967
November	3,177	3,308	3,429	3,706
December	3,781	2,761	3,001	3,671

- Source: (1) Traffic Volume Tables, Oregon Highway Division, 1971, pp. 182, 183
(2) Ibid., 1972 pp. 203, 202
(3) Ibid., 1973 pp. 202, 203
(4) Ibid., 1974 pp. 203, 204

The following table identifies all traffic counter locations in the Port Orford area. For clarification, the numbers indicated in the right column are presented on a map to show their exact locations.

The years 1972 to 1974 show no traffic count changes; however, the 1987 data for these same counting sites indicates an average increase of 21.5% for the 13 year period since 1973. Traffic on US 101 within the City of Port Orford has increased during this period to a maximum of 43.8%.

TABLE 29
PORT ORFORD
TRAFFIC CIRCULATION

Average Daily Traffic (ADT) - All vehicles by selected locations, 1972, 1974 and 1987, with percent of change.

<u>LOCATION</u>	<u>1972</u>	<u>1974</u>	<u>1987</u>	<u>1974-87 % Chg.</u>	<u>Counter Locatio (ref. ma</u>
Sixes River Bridge	3,550	3,550	3,600	1.4	---
.01 mil. So Cape Blanco Hwy	3,700	3,700	4,000	8.1	---
.01 mil. So Elk River Road	4,100	4,100	4,250	3.6	---
No. Port Orford City limits	5,200	5,200	5,400	3.8	1
.01 mil. So 19th Street	5,700	5,700	8,200	43.8	2
.01 mil. No. 13th Street	5,900	5,900	8,200	38.9	3
.01 mil. No. Port Orford Hwy	6,000	6,000	6,100	1.7	4
.01 mil. So Port Orford Hwy	6,300	6,300	6,400	1.6	5
.01 mil. West Jackson Street	4,250	4,200	5,200	23.8	6
.01 mil. East Jackson Street	3,800	3,800	5,000	31.6	7
.01 mil. East Jefferson St.	3,400	3,400	4,050	19.1	8
East Port Orford City Limits	2,600	2,600	3,550	61.5	9
N. Broundary Humbug Park	2,450	2,450	3,450	40.8	---
			Avg. Cg.	+21.5	

Source: Traffic Volumes Tables, Oregon State Highway Division

No appreciable change has resulted in the volume of traffic since 1972. (1973 counts were identical to 1972 counts).

The next table is a summary of the preceding table which takes the yearly traffic average over selected locations along U.S. Highway 101.

TABLE 30
AVERAGE DAILY TRAFFIC (ADT): ALL VEHICLES,
BY SELECTED LOCATIONS

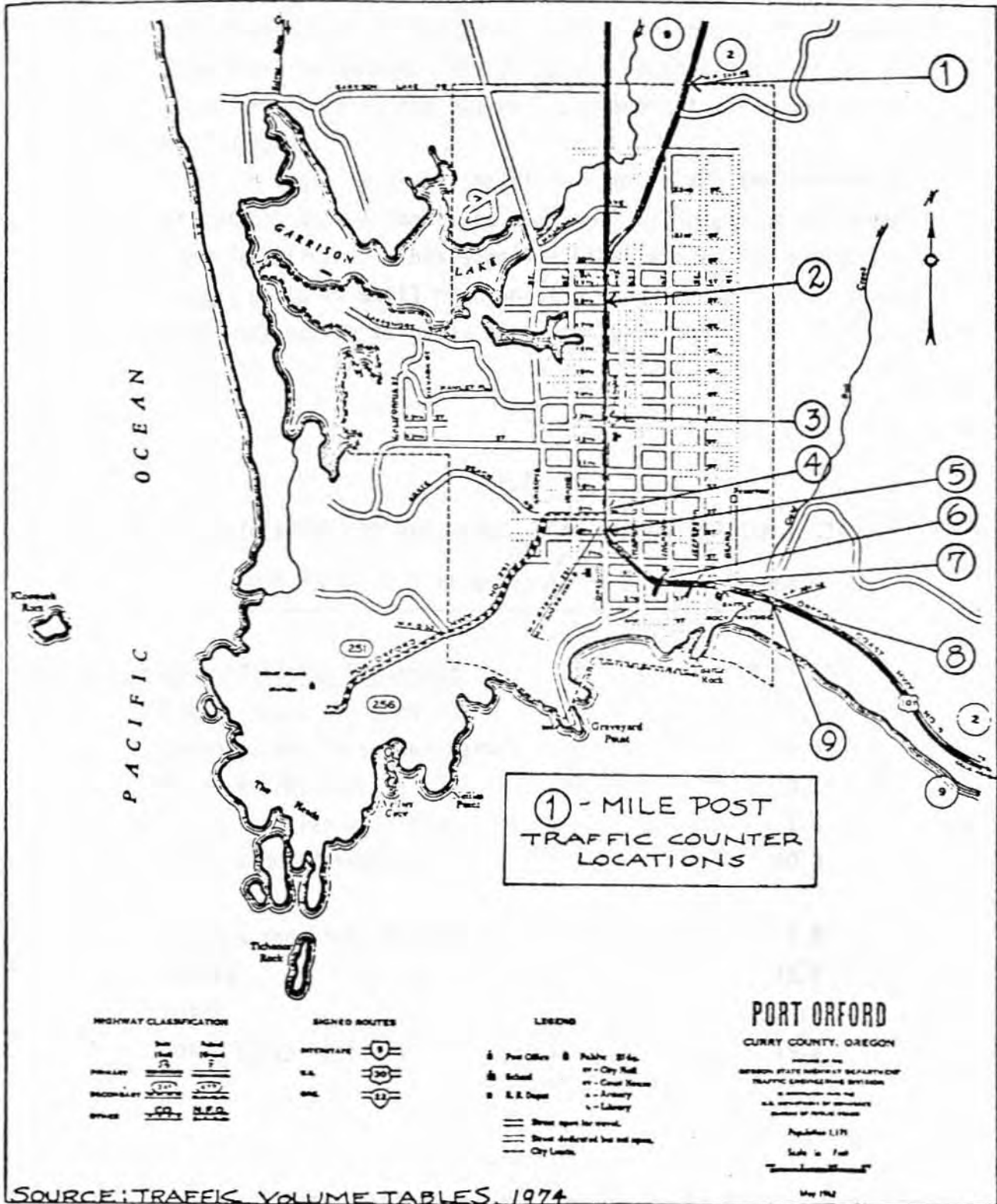
1987

<u>LOCATION</u>	<u>ADT</u>
1.15 Mi. south of Bandon	5,400
.01 Mi. south Cape Blanco Highway	4,000
.01 Mi. south Elk River Road	4,250
No. Port Orford City limits	5,400
East Port Orford City Limits	3,550
North Boundary Humbug Park	3,450
.01 Mi. South Euchre Creek Road	3,100

Source: Traffic Volume Tables, Oregon State Highway Division,

MAP 14

TRAFFIC COUNTER LOCATIONS WITHIN CITY OF PORT ORFORD



SOURCE: TRAFFIC VOLUME TABLES, 1974
OREGON HIGHWAY DIVISION
p.29

The following table identifies the types of vehicles and their percentage of the total traffic which uses the Highway just south of Bandon. The selection of this location was necessary as it is the nearest, permanent traffic counter to Port Orford.

The basic observations of this table are the percentage of out-of-state automobiles and the low percentage of campers and light trucks. This signifies that a need for overnight rental units is still high and the need for additional camper sites may not be as great as commonly thought.

TABLE 31

VEHICLE TRAFFIC BREAKDOWN, NEAR BANDON, OREGON, 1974

U.S. 101: 1.3 Miles south of Bandon, Oregon

<u>Classification Breakdown</u>	<u>% of ADT</u>
Oregon Passenger Cars	45.4
Out-of-State Passenger Cars	10.5
Panel and Pick-up	23.3
Light Vehicles w/Trailer	1.6
Total Light Vehicles	80.8
Campers and Light Trucks	2.8
Trucks	15.7
Buses	.7
Total Heavy Vehicles	19.2

Source: Traffic Volume Tables, Oregon State Highway Division, 1974, pp. 203

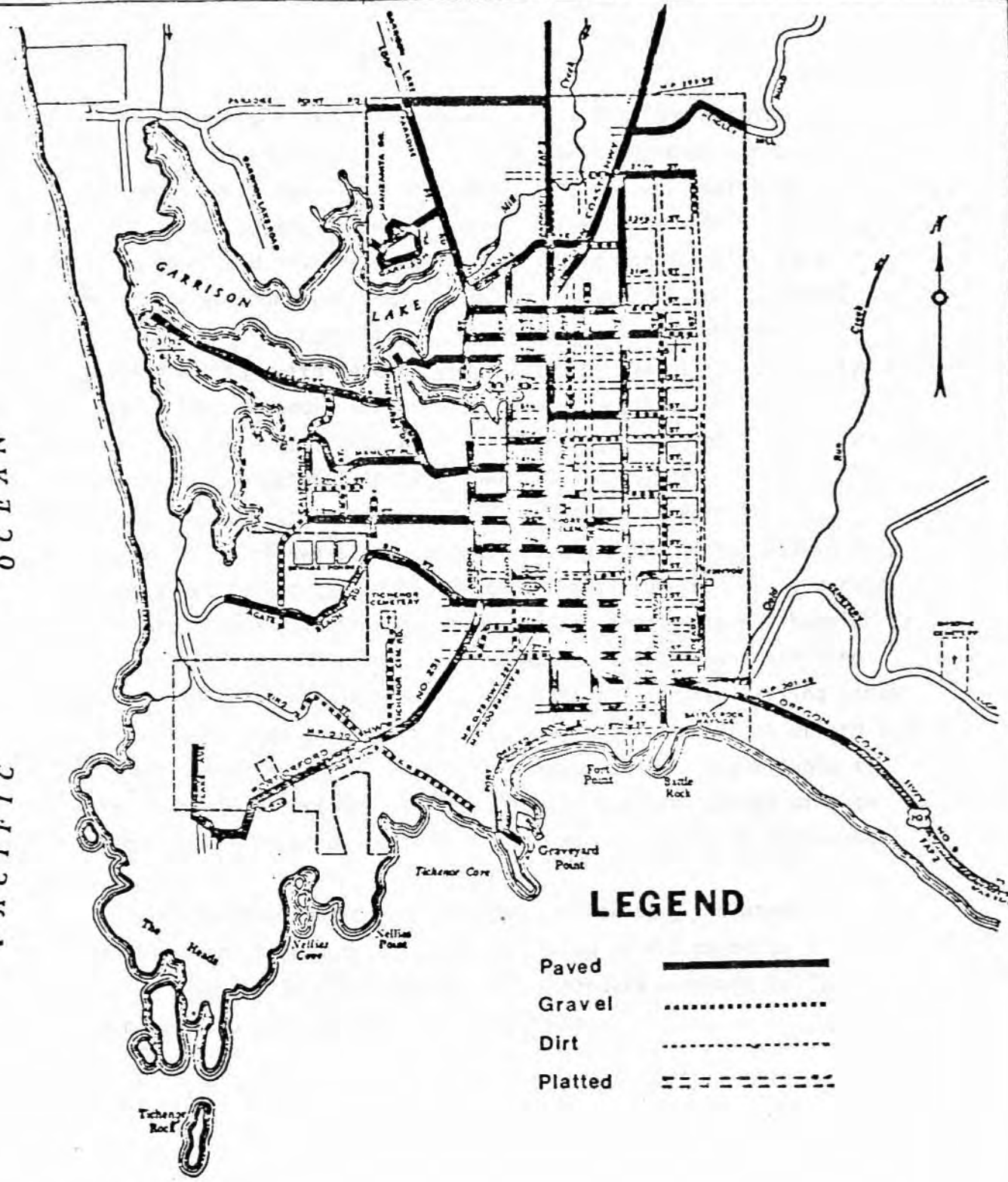
The last table (below) in this section shows the average daily traffic, by year, for a 24 year period. This data indicates that the traffic passing through Port Orford has approximately doubled during the past 24 years.

TABLE 32
AVERAGE DAILY TRAFFIC FLOWS

<u>YEAR</u>	<u>Coos County- U. S. 101, 1.3 Mi. South of Bandon</u>	<u>Curry County- U.S. 101, 2 Miles North of Oregon/ California State Line</u>
1963	2,773	2,790
1964	2,878	2,943
1965	3,032	2,952
1966	2,874	2,942
1967	3,097	2,954
1968	3,249	3,227
1969	3,166	3,241
1970	3,424	3,416
1971	3,781	3,745
1972	3,880	3,814
1987	5,400	6,400
% Increase		
1963-1987	95%	129%

Source: Traffic Volume Tables for 1972, Oregon State Highway Division.

PACIFIC OCEAN



LEGEND

- Paved
- Gravel
- Dirt
- Platted

PORT ORFORD

PORT ORFORD TRANSPORTATION SUMMARY (1)

Port Orford is approximately one hour from the North Bend Airport by automobile. This distance from commercial air service is compounded by the other transportation problems. Curry County is not served by any direct improved highway access to the interior of the State and must rely on Highway 101 to connect with east-west improved highways at either Bandon (Oregon 425) or Crescent City (U.S.199). In Curry County, Highway 101 is an improved two-lane highway with several very hazardous places, particularly south of Port Orford. During the summer the highway receives a very high volume of traffic with a high proportion of slow-moving recreational vehicles. State Highway 42 and 101 are the principle surface transportation routes to Curry County and Port Orford, however, these highways are somewhat slow and hazardous because they are only two lane traveling surfaces and have numerous blind curves. The State Highway Division is attempting to improve this situation by realigning the right of way to eliminate curves and by installing passing lanes to improve traffic circulation. Two new passing lanes have recently been constructed on Highway 101 between Port Orford and Langlois. No other form of improved transportation is available to Curry County, or Port Orford, for personal purposes except private aircraft. The only public carrier serving the County is Greyhound buses.

These transportation difficulties create very isolated conditions in the County, the most isolated of all counties in western Oregon. This isolation greatly hinders economic activity and efforts to improve economic conditions.

Source: (1) Synopsis of the Coos-Curry Council of Governments testimony submitted to the Public Utilities Commissioner, August, 1974.

LAND USE

Existing land use patterns within the City of Port Orford are fairly diversified with the exception of commercial development which is basically localized to the areas adjoining Highway 101. Although the greatest portion of the city is of a residential nature, areas of undeveloped land are consistently interspersed.

The following report seeks to identify existing land uses within the city. Commercial, residential, public facilities, and recreational areas are all categories of consideration. A field survey was the informational basis for this study.

RESIDENTIAL DEVELOPMENT

Residential development is the predominant land use in the City of Port Orford. The appealing setting of the town on the Pacific Coast has proven to be an attraction for residential settlement.

An overall characteristic of the residential development within the City is a general pattern of scattered development. Many vacant lots and undeveloped areas separate most of the residences. The highest density level in the city, 3.85 dwelling units per acre in the Hamlet Subdivision, does not correspond to high density levels of larger towns, and could, at most, be considered a medium density level.

Areas of the city tend to reflect the order of their development in overall housing conditions. The older-central portions of town have a slightly lower percentage of standard dwelling units, while newer development has occurred mostly in the Garrison Lake area and on the point overlooking the ocean in the southwestern section of the city.

Modern subdivision concepts have been incorporated in The Hamlet, Lynwood Addition, and Garrison Lake Addition, and recently platted subdivisions such as Woodglen and Seacliff. These sub-

divisions are located in the areas of the city which are outside the town plat and are noted for their curved, ambling streets which are interesting contrasts to the grid patterns of many other areas in the city.

Multi-family and mobile home developments are limited, at present, within the city. The northeasterly part of the city is zoned for mobile homes, as well as conventional housing and in recent years a subdivision was platted in that area for mobile homes on individual lots. Multi-family units, mostly duplexes with several four-plexes, are scattered throughout the city.

COMMERCIAL DEVELOPMENT

With few exceptions, commercial development occurs in the area bordering Highway U. S. 101. Commercial establishments are divided as to service characteristics. About forty percent of the businesses are designed primarily to service the needs of tourists. Other businesses basically serve the year-round residents. These two categories, tourist and general commercial, are fairly evenly distributed throughout the central business district.

Port Orford possesses a wide variety of businesses. Businesses catering mainly to tourists include several motels, cafes, craft and hobby shops, gasoline stations, etc. Other stores, shops and establishments cater to the broad spectrum of everyday needs of the general population. In addition, tourists and residents alike are served by the marine facilities at the Port of Port Orford.

PUBLIC FACILITIES

The City of Port Orford is served by a number of public facilities. The Fire Department and Ambulance Service, Public Library, and City Administrative offices are housed in the City Hall located on 20th Street at Idaho. A modern Post Office on 6th Street near Jackson also serves the area.

Both municipal water and sewerage facilities are provided. The city has two concrete reservoirs; one located on the Deady Street hill in the easterly part of the city, and one located on Coast Guard hill in the westerly part of the city. The recent sewerage treatment facility is located south of 12th Street and Agate Beach Road.

In addition, one elementary school is located within the city and one on the highway north of 12th Street. A Justice Court, a Highway Division maintenance station, and a Public Health Department, are among other public facilities provided. Semi-public facilities within the city include 5 churches, a masonic temple, and an American Legion Hall.

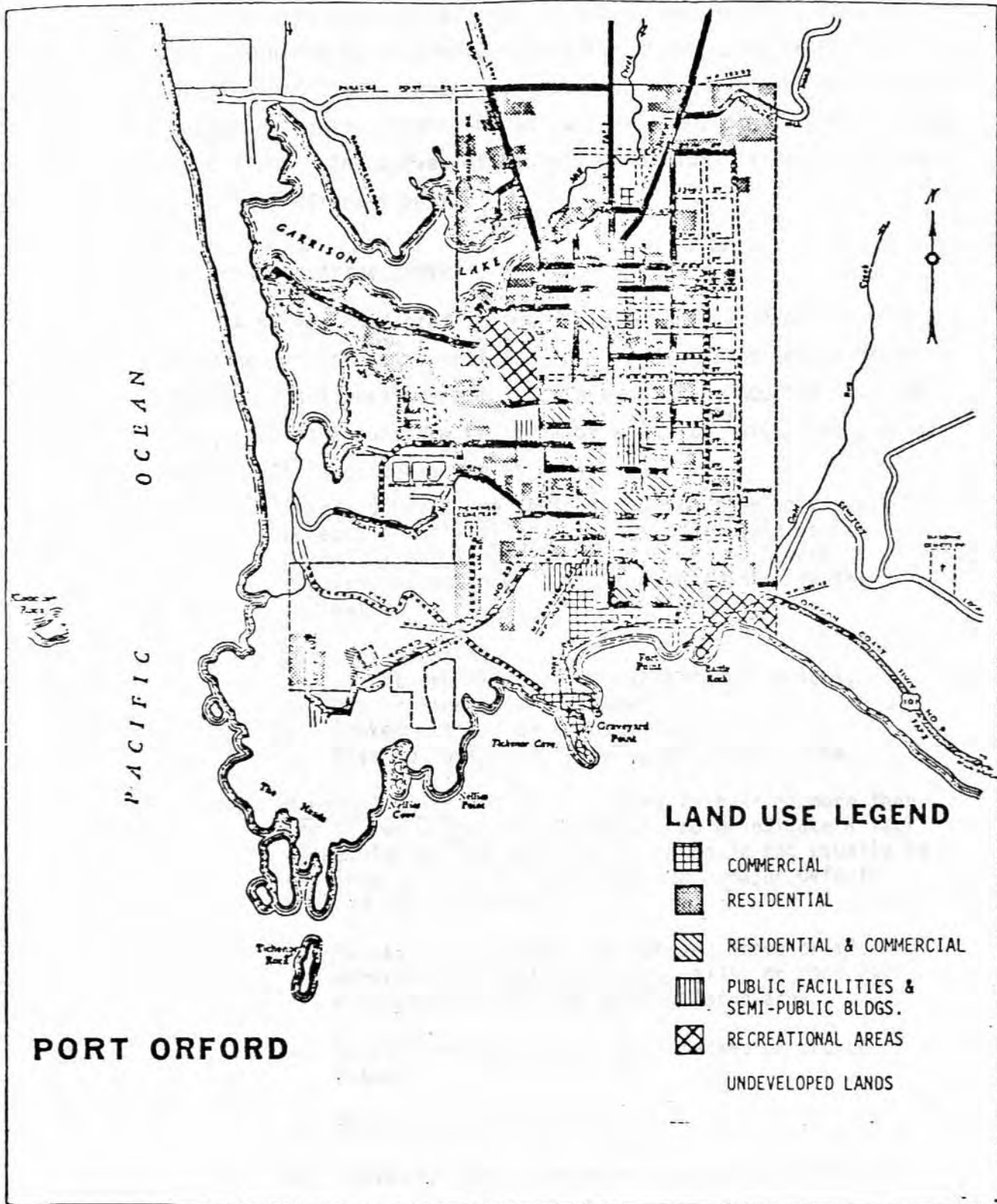
RECREATIONAL LANDS AND OPEN SPACE

The City of Port Orford provides an ideal recreational setting. The nearby Pacific Ocean and Garrison Lake provide water-related activities such as swimming, fishing, boating, beachcombing etc.

Also, the city-owned Buffington Memorial Park, located on 14th Street west of Arizona Street; and Battle Rock Park, located south of U.S. 101 at Deady Street, affords the city's residents with excellent recreational facilities. Buffington Memorial Park provides a horse riding ring, basketball and tennis courts, a playground, and a baseball diamond for athletic activities. Battle Rock Park provides a reststop with comfort station and information office at a scenic coastal viewpoint. A path is maintained to provide beach access to the ocean shoreline extending to the south.

UNDEVELOPED LANDS

There is much vacant land within the City. Large tracts of undeveloped land are characteristic in most areas.



HOUSING STUDY

Housing conditions, housing types, and density patterns are all elements of consideration for the housing study. An overview of these elements proposed to give insight into overall existing housing conditions and any problems stemming from these conditions. The survey of housing conditions presented includes incorporated areas only.

HOUSING CONDITION SURVEY

A survey conducted in the field sought to identify overall housing conditions as well as areas needing substantial rehabilitation or unit replacement. The Oregon State Housing Division has established uniform criteria by which to rate housing conditions. These criteria are as follows:

1. Standard Units are those judged to have no visual defects or only slight defects that could be repaired by the average homeowner in the course of regular maintenance. Slight defects include the following:
 - a. Lack of paint.
 - b. Slight crumbling of mortar between bricks.
 - c. One or more broken windows
 - d. Broken gutters or downspouts.
 - e. Missing roofing material over a small area.
2. Marginal Units are those judged to have no more than one or two major defects which would indicate a lack of regular maintenance and which could not usually be repaired by the average homeowner. Major defects include the following:
 - a. Holes, open cracks, and rotted, loose or missing material in the foundation, walls, or roof over a substantial but not overly large area.
 - b. Several broken windows and cracked or broken frames.
 - c. Broken or missing doors.
 - d. Broken or otherwise unsafe porches, stairs, etc.

3. Substandard Units are those judged to have several major defects (see 2 above) or one or more critical defects which would prevent the structure from providing safe and adequate shelter. Critical defects include the following:
 - a. Holes, cracks, etc., as described in 2-a above over a large area.
 - b. Substantial sagging of the floor, walls, or roof.
 - c. Extensive and unrepaired damage by storms; i.e., floods, winds, wind-driven rains, etc.
 - d. Damaged and unsafe chimney.
 - e. Inadequate original construction -- tents, huts with dirt floors, or no foundations, barns or converted garages.

Additionally, marginal and standard units are defined by the Housing Division as "a dwelling unit that has a central heating system and a plumbing system complete with hot water and indoor toilet facilities that are reserved from the exclusive use of a single household."¹

Table 33 summarizes housing conditions within the City of Port Orford by housing type. By far the most significant number of dwelling units, almost 87 percent, are single family structures. There are only very small percentages of both multi-family units and mobile homes.

Condition ratings for all structure types are comparable in each of the three categories. The majority of each housing type is standard, though a somewhat lower percent of mobile homes are in this category. A relatively high percentage of housing, and especially mobile homes, are sub-standard, due mainly to the age of the structure.

Mobile homes within the city are mainly restricted to mobile home parks. Only a few mobile homes are located outside of the park environment. Mobile homes are found on lot parcels outside

¹ Handbook for Housing Data Collection; Oregon State Housing Division, 1974

city limits and the surrounding areas with a slightly greater frequency, while additional mobile home park facilities are located in a close proximity to the city as well as in the north-easterly part of the city which is designated for the use of mobile homes, as well as conventional housing. Woodglen Subdivision which is located at 25th and Deady Streets was platted to provide individual lots for mobile home residences. This subdivision is about 25% developed with mobile home residences at the present.

STUDY AREA CHARACTERISTICS:

In order to more clearly define existing housing conditions, housing types, and density patterns, the City was divided, for study purposes, into seven major study areas. A description of each area and its characteristics will follow. Although the areas vary considerably in size, the areas were determined by characteristics common throughout each of the groups. The map identified by "Standard Housing Conditions by Study Area" shows the study areas and summarizes housing conditions within each area.

STUDY AREA 1: Study Area 1 is an area characterized by low density levels and large portions of undeveloped lands. It includes all of the area south of 25th Street and east of the Oregon Coast Highway to the city limits, with the exception of the area south of 11th Street and west of Jackson Street. Limited development has occurred in the approximately eighty-one acres of land located to the west of Deady Street. Most of this area has been platted for streets, even though many of these dedicated streets have never been constructed. An almost seventy-eight acre plot east of Deady Street has experienced no development. In 1978 the city annexed a tract of vacant land adjacent to the easterly boundary of the city. Most of this land is a westerly facing hillside which has not been developed since the annexation and provides vacant lands for additional housing.

An overall look at the section of Study Area 1 that has experienced development shows that housing densities average less than one dwelling unit per acre. In addition, slightly less than one-half of the residences in the area are of standard quality. Thirty-three percent are marginal units, while nineteen percent are substandard.

Although further development could possibly be limited or even restricted in the eastern, mountainous portion of this area, there is much latitude for possible residential development on much of the remaining vacant land. The Deady Street area could also be considered for development as view property due to its tremendous visual resource -- the Pacific Ocean and coastline.

STUDY AREA 2: The area comprising Study Area 2 lies west of and adjacent to Study Area 1. Its northern limitation is the northern line of the Lynwood Addition Subdivision, while its western boundary is Arizona Street. The land represented north of 7th Street and east of Oregon Street (that is, south of the highway), is included in the area.

The area described includes most of the central portions of the downtown district. In addition, thirty-nine percent of the city's total residential dwelling units are located in this area. Thus, both commercial and residential units are highly concentrated in this zone. Total residential units average slightly over two and one-half dwelling units per acre. Although commercial development occurs mainly along the highway, residential development appears to be scattered fairly consistently throughout the study area, except for the three block area between 14th and 17th Streets where little or no development has taken place. Still, however, there is much vacant land in this area as a whole that may be suitable for either further commercial or residential growth. Both topography and proximity to existing public facilities would indicate a growth potential for this area.

Overall housing condition in this zone is somewhat higher than that in Study Area 1. Almost fifty-four percent of the dwelling units are of standard quality, and nearly twenty-nine percent are marginal. There is also one mobile home park in this area.

TABLE 33
HOUSING CONDITION BY STRUCTURE TYPE
1975

STRUCTURE	All Units		Standard		Marginal		Substandard	
	No.	% of Total	No.	% of Type	No.	% of Type	No.	% of Type
Single-Family	32	86.7	200	62.3	79	24.6	42	13.1
Multi-Family*	28	7.6	18	64.3	6	21.4	4	14.3
Mobile Homes	21	5.7	12	57.1	5	23.8	4	19.1
TOTAL UNITS	370	100.0	230	62.2	90	24.3	50	13.5

*Indicates total of individual units within structures

Source: Coos-Curry Council of Governments Field Survey, June, 1975.

STUDY AREA #3: Study Area #3 lies south of 14th Street, east of California Street, and adjacent to zone #2. The area described is largely open and vacant with sparse residential development scattered along the few streets of the area.

Much of the terrain is mountainous and rugged and includes a large bluff overlooking the Pacific Ocean. For this reason, density levels are extremely low, and the nearly one hundred fifty-four acres represented here account for only thirteen percent of the city's total dwelling units.

Overall housing conditions in this area are very high as it is an area of relatively new development. Nearly eighty percent of the dwelling units are standard, while only six percent are substandard.

Although some recent development has occurred in this area, further development will probably be limited by topography and the accessibility of public facilities.

STUDY AREA #4: The Hamlet Subdivision represents an entire study area in and of itself. This is due largely to the "neighborhood" characteristics of the area. Most of the housing here was constructed in approximately the same time period and is of similar quality and construction. As there are only two vacant lots in the subdivision, density levels are higher here than in any other portion of the city, or almost four dwelling units per acre.

The majority of the housing here is either standard or marginal, with only about 7 percent being substandard. Single-family dwelling units are the only structure types in this subdivision.

STUDY AREA #5: The area included in section #5 lies west of study areas 2, 3, 4, and 6, and entails all of the Garrison Lake frontage within the city limits.

The area as a whole is sparsely populated except for the Garrison Lake Addition Subdivision, leaving much vacant and open land. Development has almost exclusively been single-family dwellings. But, as most development has occurred relatively recently and most of the homes are newer, the overall standard of housing is quite high. Ninety percent are standard while only six percent are substandard.

The Garrison Lake Addition Subdivision is the highest density area around the lake. Its density figures to slightly over three dwelling units per acre which contrasts with the rest of the Garrison Lake areas which do not exceed one dwelling unit per acre.

Areas around Garrison Lake and the diverse Buffington Memorial Park provide recreation opportunities as a complement to the residential areas of this zone.

There is ample space for growth and development within this zone. The appealing setting of this area and the availability of public facilities might contribute to future development here.

STUDY AREA #6: Study Area #6 is exclusive of any type of development except for scattered residential dwelling units along Paradise Point Road - which is located on the extreme western zone boundary.

Although the dwelling units here only constitute one percent of the city's total residential housing stock, all of these dwelling units are of standard quality.

STUDY AREA #7: Study Area #7 encompasses the extreme northeastern section of the city. Hensley Hill Road and Highway 101 are the only means of access into the area, which also is characterized by much vacant and open land. Development in the form of single-family dwelling units and some mobile homes occur along these transportation links, though density levels are slightly under one dwelling unit per acre. In 1978 the city annexed several lots along its northerly boundary which were primarily in residential use and already developed with dwellings. The density and condition of these houses did not change the overall characteristics of this Study Area.

The overall standard of housing in this zone is slightly lower than in many of the other zones of the city. Only fifty-four percent of the housing is standard, while nearly thirteen percent are substandard.

Public facilities do extend into this area, so future development would be possible. Wooded, rolling foothills are also characteristic.

STUDY AREA CONDITION SUMMARY: Table 34 summarizes overall housing conditions by study area. Both number and percent of standard, marginal, and substandard dwelling units are detailed as follows:

TABLE 34
HOUSING CONDITION BY STUDY AREA
City of Port Orford, 1975

Study Area	Units in Study Area		Standard		Marginal		Substandard	
	No.	Percent of SA*	No.	Percent of SA*	No.	Percent of SA*	No.	Percent of SA*
1	70	18.9	34	48.6	23	32.8	13	18.6
2	144	38.9	77	53.5	41	28.5	26	18.0
3	49	13.2	39	79.6	7	14.3	3	6.1
4	27	7.3	16	59.3	9	33.3	2	7.4
5	52	14.1	47	90.4	2	3.8	3	5.8
6	4	1.1	4	100.0	---	----	---	----
7	24	6.5	13	54.2	8	33.3	3	12.5
TOTAL	370	100.0	230	62.0	90	24.3	51	13.7

*SA - Study Area

SOURCE: Coos-Curry Council of Governments Field Survey, June 1975.

HOUSING CHARACTERISTIC SUMMARY

Housing densities throughout the City of Port Orford are fairly homogenous. While densities vary from area to area, there are no areas of extremely high density levels. Large areas of vacant and open space characterize much of the city, leaving much potential for possible development.

Housing conditions are generally slightly lower in the older, central districts of town and in the northern portions of the city contiguous to Highway 101. Most recent development has occurred in the extreme south-western area of the city and the areas surrounding Garrison Lake, where housing conditions are slightly higher.

A comparison of overall housing conditions surveyed in the City of Port Orford and in Curry County as a whole as identified in the Coos-Curry 1990 Regional Comprehensive HUD '701' Plan, shows differences in the categories. While a comparable percentage of units are identified as Standard, a substantially greater percentage of units in Curry County as a whole are marginal units. But the most significant difference is found in the substandard category. While in Port Orford 13.5% of the total housing stock are substandard, in Curry County as a whole only 4% are substandard.

An analysis of U.S. Housing Census Data, as identified in the Coos-Curry 1990 Regional Comprehensive HUD '701' Plan, considers all of the elements that produce substandard housing - plumbing conditions, overcrowding and vacancy rates.

In all of Curry County, an additional 388 new units are estimated to be needed to alleviate current substandard conditions, or 8.4% of the housing stock. This specific data is not available for the City of Port Orford, but since the percentage of substandard units is much higher for the City of Port Orford, the percentage of new units needed could conceivably be much higher, also.

ENERGY RESOURCES

Energy can be defined as power capable of being transformed into work. ⁽¹⁾ Port Orford has generally been limited to gasoline and hydro-electricity as has been the majority of northwestern communities.

In light of the recent energy shortages and the resulting awareness of energy alternatives, the following assumptions can be made:

1. Gasoline and petroleum products will continue to decrease in quantity and increase in price.
2. The completion of the Alaskan Pipeline will produce benefits to west coast ports which have the capacity to receive supertankers, refine, and distribute gasoline.
3. Alternative sources of energy will continue to be explored.
4. Alternative wind and solar energy experiments will be available to consumers as supplementary sources of heat and electricity at the present time.
5. Several federal and state agencies together with private interests have investigated the possibility of using wind energy in the Port Orford area; these studies have been concentrated in the vicinity of Cape Blanco, however, the studies have not resulted in the construction of wind power generation facilities to date.

(1) Webster's Seventh New Collegiate Dictionary, pg. 666, 1974.

ALTERNATIVE ENERGY RESOURCES

This section will deal with alternative energy sources that, upon completion of model studies, could be implemented on a regional level. Highly sophisticated and expensive energy sources such as Nuclear Power can not be addressed as a feasible undertaking. The limited population of the area prohibits a plan of this type to be constructed which would serve only the immediate area. In addition, power transmission lines to eastern destinations would be extremely expensive to construct due to the distance and rugged terrain. Another consideration in this section is that current experimentation and research may locate energy resources that are presently unknown, or technological advances may allow highly expensive energy resources currently available to become more economically attractive. For example, a technological advance in the recovery of oil from old, low yield wells could double the amount of oil recovered.

Therefore, energy resources is an area of wide possibilities and an area of rapid changes. In order to address this topic it will be broken down into components.

Solar Energy: Solar energy can be addressed on two levels. Use of solar heat by regular methods and the use of solar heat collectors.

The initial way of using solar heat is to properly seal and insulate a structure and utilize windows to let in the sun and window curtains to retain the heat during the night.

While this seems rudimentary, experience indicates that many homes and businesses are not adequately insulated and, thereby, defeat the ability of any heating source to run efficiently. Therefore, basic insulation is a requirement that must be met for all present and future forms of heating systems.

The second method of Solar Energy use is through the

installation of Solar Collector Panels which vary widely in expense, sophistication and use.

Solar Collector Panels have been constructed that can:

1. Heat a home or business, and;
2. Generate electricity.

The first use is currently feasible in western Oregon and can be installed on existing structures without extensive modifications.⁽¹⁾ This present system is supplementary to normal heating sources but will pay for itself in under five years with savings in heating bills. More sophisticated Solar heaters are available. However, the costs are prohibitive to private and public concerns because the amount of panels needed require vast acreages to supply heat in even small population centers. This expense and the acreage of panels is also a setback to electrical generating Solar collectors. Presently, technology can not correct the loss of energy in the transfer of Solar heat to electricity which will be necessary in order to make this system feasible.

Wind Power: The Port Orford Citizens Involvement Committee has become highly interested in the feasibility of wind power. The initial interest was generated by the awareness of near constant wind in the Port Orford area. In addition, wind power has proven effective in various aspects of power through recent history. A recent project has been successful in producing commercial electricity. However, this system was supplementary to more reliable sources. The Smith-Putnum aerogenerator operated successfully on a commercial basis in Vermont for three days at the height of World War II. The turbine then broke down and parts to repair it were unavailable due to war-time shortages.⁽²⁾

Wind studies are now under way through grants from the National Science Foundation. Using past knowledge and present technology the results of these studies are expected to reveal wind generators capable of producing reliable power in sufficient quantities to make them commercially feasible in selected areas around the United States.

(1) Sunday Oregonian, pp. F-2, October 19, 1975.

(2) Bulletin of the American Meteorological Society, Vol. 56, No. 7, July, 1975, pp. 660-675.

The studies presently underway are not aimed at individual homeowner use. Private studies have revealed that, under special conditions, wind power for home sites is feasible on a supplementary basis and can be constructed within a reasonable budget. These systems are, however, not commercially available and require a large investment in storage batteries. In addition knowledge of electricity is essential in designing and installing a system which is compatible with existing electrical systems.

However, because of the growing interest in these systems, it is possible that they will become available to the general public in the near future and the Citizens of Port Orford will be in an excellent position to augment new and existing structures with wind power generators.

Nuclear Power: Nuclear Power plants, as stated in the beginning of this section, will not be constructed in coastal Oregon in the foreseeable future. These plants would be established, at a lower cost, in the Willamette Valley and could then tap into existing power lines which would feed the South Coast. Therefore, the Port Orford Comprehensive Plan can offer no practical forum to urge location of nuclear plants along the coast.

Tidal Power: The rising and falling of ocean waters has been identified as a source of considerable energy potential. Experiments have shown that the tidal movements can be harnessed in selected locations to produce electricity. To consider such a power source several basic problems must be addressed:

1. The distance between average high and low tides.
2. The size of the dam which must be constructed to harness the flow of water in and out of the backwater.
3. The cost of the project and the resulting cost of electricity.

The Pacific Ocean is not ideal for this type of power source as the tide fluxuations are considerably less than on the Atlantic

Ocean. In addition, the Atlantic Coast has a much larger concentration of population in close proximity to the ocean which could conceivably use tidal generated electricity.

The assets of the Pacific coast are the rugged coastline and the quantity of rivers flowing into the ocean. The establishment of a control dam at strategic sites could utilize the tidal movement without requiring the rivers to be backed up or covering the coastal river valleys.

Realistically, however, the introduction of commercial tidal generation plants is far in the future, with little national emphasis in research. In addition, if such plants were constructed they would be installed on the East Coast initially because of the more active tides and the proximity of population centers.

Therefore, serious consideration of this possibility might be discounted.

Solid Waste Recovery: A great deal of attention has been given to the recovery of solid waste as an energy producing resource.

In the midwest, farmers and ranchers have utilized animal waste to heat barns and fuel farm machinery. This is done by burying the waste products and drawing off methane gas which can be used in a manner similar to natural gas. This is only possible when there is a large source of waste as the resulting methane gas is only a small fraction of the waste products. Therefore, this procedure is only practical for use by individual ranchers. Large cities such as San Francisco, are considering this same process on a more sophisticated level to recover fuel oil, glass and metal.¹ The recovered fuel oil can be used to fire industrial furnaces or electrical generators.

There are programs underway, nationwide, that are exploring the recovery of all types of waste products. As energy costs rise and the processing costs of untapped resources rise, the recycling of waste products becomes more attractive to the public and private sectors.²

1 Refuse as Fuel for Utilities, Stanford Research Institute, Menlo Park, Ca. 1975.

2 Resource Recovery and Source Reduction, second report to Congress, pp. 40-42, U.S. Environmental Protection Agency, 1974.

An existing form of solid waste recovery is currently being utilized by the citizens of Port Orford. The ocean beaches, located adjacent to Port Orford, provide a renewable heating source that residents have continually used to augment conventional household heating methods. Beachwood is being used as the major source of firewood for many citizens in Port Orford. This provides several benefits in addition to reducing the need for oil and electric heat:

1. The removal of beachwood reduces the fire danger during the dry season.
2. The removal of beachwood reduces the danger of pinning and drowning of beach users by wave action on the logs.
3. The use of beachwood for home heating reduces the pressure to cut trees in the surrounding forests for use as firewood.

Therefore, the variety of solid waste recovery methods allow the individual community to pursue methods of specific interest to them. The major points of consideration are the types and amounts of waste available, the local need for recovery processes, and the availability of a market for the by-products.

Transportation and Energy: Port Orford has developed a street improvement program which is rapidly upgrading existing streets and extending new streets.

Energy conservation studies have pointed out that well-paved streets and planned traffic circulation lead to lower energy use. Automobiles traveling over upgraded streets use less gasoline and, in addition, lower the need for tires and automobile parts. An improved street circulation pattern allows the vehicle operator to travel a more direct route to and from his destination and thereby decreases gasoline consumption.

In this matter, Port Orford should continue its road improvement program and continually address the need for traffic circulation patterns that limit the need for stop and start driving.

Other Energy Sources: The following energy options have been explored with the State Department of Geology and have been discounted for feasible consideration in the Port Orford area in the foreseeable future:

1. Oil
2. Coal
3. Geo-thermal
4. River constructed hydro-electric dams

Energy Summary: From the results of this research, Port Orford can most feasibly explore only two energy possibilities: Wind and Solar research.

Solar energy research is developing rapidly and the near future may provide low cost, efficient ways of utilizing this power even in areas with little direct sun.

Wind power, of course, can be developed with existing technology and would be most appropriate by the individual home owner as a supplement to present energy sources.

BRIEF HISTORY OF PORT ORFORD

Port Orford received its name on April 5, 1792, by Captain George Vancouver of the Royal Navy who was exploring and mapping the Oregon coast at the time. The name was given to honor George Walpole, the third Earl of Orford, a close friend of Captain Vancouver's who had died six months earlier.

Being inhabited by the Tu Tut Ni (also known as the Rogue or California Siwashe) Indians, the first known land intrusion at Port Orford by the white man was in June, 1828 when a party of hunters led by Jedediah Smith came north through Curry County from Spanish California towards Fort Vancouver. They are reputed to have spent one night encamped at Port Orford before resuming their journey to the north.

The earliest settlement at Port Orford (and also in Curry County) occurred in 1851. On June 9, Captain Wm. Tichenor unloaded nine men as an advance party for the construction of a settlement and commercial depot. Promising to return in twelve days, Tichenor sailed to San Francisco in order to hire additional men for the building work. In the meantime, the Quah-to-mah Indian band attacked the nine men at Port Orford as intruders, forcing them to make a stand at Battle Rock. With only a few firearms and one small cannon the nine men faced several hundred angry Indians. In the battle that resulted, the Indians suffered many casualties. The Indians soon withdrew and the nine men escaped up the coast to white settlements on the lower Umpqua River leaving behind twenty-two dead Indians and one dead Russian renegade.

Tichenor returned with sixty-seven men on July 14, 1851, and for a time thought his first party had been wiped out by the Indians. Tichenor's men then set about to build a blockhouse, the first structure to be built in Curry County.

By September of that year, the Army had stationed troops and built Fort Orford as a safeguard against any further Indian hostilities. Fort Orford also contained the first hospital to be in use in southwest Oregon. A sawmill was soon built by two of Tichenor's nephews, Henry and Edward, and on July 18, 1853, the first cargo of white cedar from Port Orford arrived in San Francisco. This mill later relocated (in 1857) to a new site one and one-half miles north of town.

According to an affidavit signed by J.W. Sutton, R.W. Dunbar, R.H. Smith and H.B. Tichenor on July 27, 1857, Port Orford had a Post Office in 1855 and by 1857 the town consisted of sixty buildings including one sawmill, three hotels, eight stores, two saloons, one ball alley and fourteen army buildings.

The residents of Port Orford built another blockhouse in late 1855 in anticipation of hostilities with the Indians. The State of Oregon Inventory of Historic Sites and Buildings identifies this blockhouse and stockade as the "Citizen's Fort". Ellen Tichenor McGraw, the daughter of William Tichenor, recalled the Citizen's Fort in her memoirs. She wrote:

"In the fall of '55 the citizens erected a fort on Fort Point. It was built of hewn logs and was two stories high; it was protected by a palisade made of a double row of planks, about one and one-half feet apart, placed upright and filled in with earth, with port holes at regular intervals. The upper floor was reserved for women and children; no bedsteads were allowed and the mattresses were laid side by side in rows, a space being left all around the wall to enable to men to reach the port holes."*

The Rogue River Indian War erupted on February 22, 1856 and the Citizen's Fort was subsequently occupied for the next two months. By June the Army had quelled the Indian hostilities and most of

*McGraw, Ellen Tichenor, "Recollections of Ellen Tichenor McGraw" from pp. 285-90 in Dodge's Pioneer History of Coos and Curry Counties, 1898.

the neighboring Indians were shipped away to reservations. By that fall, Fort Orford was dismantled and relocated at the Umpqua River to the north.

Also, in 1856, a mystery arose concerning the Port Orford meteorite. A Dr. John Evans had found a piece of this meteorite (which is supposed to have been a part of the great Pallus meteorite that had fallen in Siberia a few thousand years ago) near an area two days journey east of Port Orford known as Bald Mountain. The discovery site is supposed to have strong magnetic effects generating from it, but the location of the site was soon lost when Dr. Evans died from an illness.

In the 1860's a decline was seen in the activity of Port Orford and a great forest fire in 1868 destroyed much of the town.

Rebuilding and renewed mining operations within the 1870's led to use of the town as a shipping center throughout the 1880's and 90's. One of the first newspapers in Curry County (The Port Orford Post) was also established here on May 27, 1880.

HISTORIC SITES AND BUILDINGS

The accompanying map shows many of the existing buildings and sites which have either a value of interest or historical significance.

The Lindberg House in 1892 (1), the Masterson House, 1898 (2), and the Matoza House 1891 (4), were all built by a Swedish contractor, Pehr Johan Lindberg who had moved to Port Orford in 1882. All three structures are elaborate in design and construction and serve as excellent examples of late 19th century dwelling architecture.

Other structures include the White House 1902 (3); the Nygren Hotel 1881 (5), which is still in use today (and is owned by the Matoza's); the Gable House site (7), is the location of the former administration building and home of one of the business leaders and first mayor of the city; and the Port Orford jail 1937 (6), a tourist photographic attraction.

The Fort Orford site is a vacant lot which is identified by a historical marker commemorating the early fort. The fort itself was a U.S. Military Post built in September, 1851, to offer protection from the Indians to residents and miners of the area. In April, 1852, the fort consisted of thirty-four troopers housed in nine log buildings. By January, 1855, the size of the fort had changed to fifteen buildings with twenty-six troopers including a surgeon. The fort was dismantled in the Fall of 1856 after most of the Indians had been relocated to reservations.

The Citizen's Fort (9) was built in the Fall of 1855 by the citizens of Port Orford as a protection against Indians. It was made from hewn logs and consisted of a two-story tall blockhouse with a plank palisade. It was used during the Indian War of 1856 but all remnants were subsequently obliterated when R.D. Hume's ice plant was built in 1897.

The Tichenor Cemetery 1853 (10) contains the grave sites of not only the Tichenor family but many other early pioneers, as well.

The Heads (11) is a scenic bluff northwest of the present city, overlooking the whole of the city and the bay. The former Coast Guard Station is now used as an Oregon State Wayside park.

Battle Rock (12) is the scene of a fight between nine men of the advanced settlement part of William Tichenor and a group of hostile Indians. The fight occurred in June, 1851, and the site is now a State Park in memory of the event.

The original Tichenor blockhouse (13) was the first structure built in Port Orford when William Tichenor and sixty-seven men landed on July 14, 1851. It occupies the same site as Citizen's Fort.

Historic Bibliography

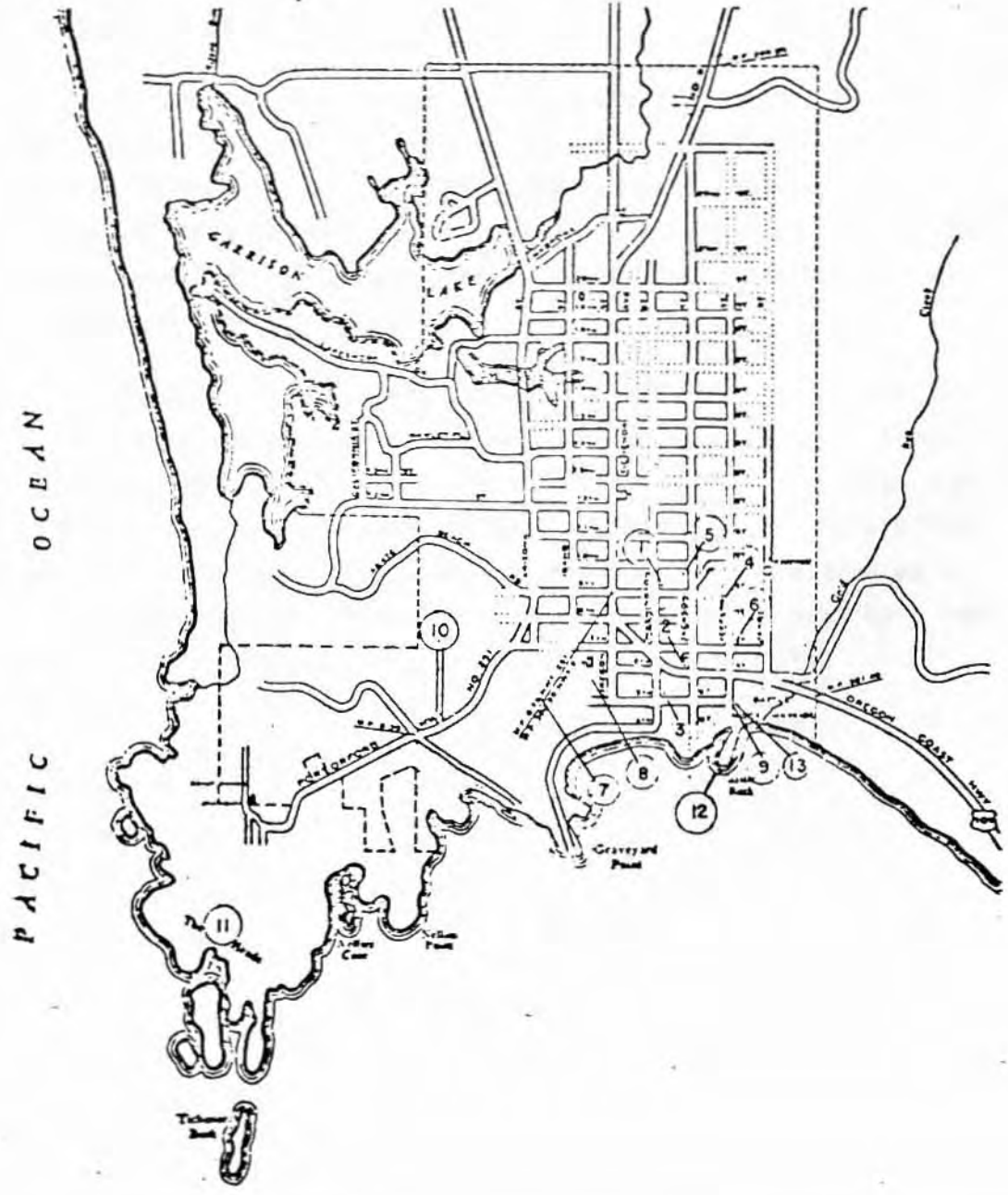
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HISTORIC SITES &
BUILDINGS
PORT ORFORD, OREGON

- BUILDINGS**
1. LINDBERG HOUSE 1892
 2. MASTERSON HOUSE 1898
 3. WHITE HOUSE 1902
 4. MATOZA HOUSE 1891
 5. NYGREN HOTEL 1888
 6. PORT ORFORD JAIL 1937
 7. GABLE HOUSE 1935

- SITES**
8. FORT ORFORD 1851
 9. CITIZEN'S FORT 1855
 10. TICHENOR CEMETERY 1853
 11. THE HEADS
 12. BATTLE ROCK
 13. TICHENOR BLOCKHOUSE 1851

Scale 1" = 1600'



MEDICAL SERVICES

Medical services in Port Orford are presently provided by the Port Orford Medical Clinic located on Madrona Street. This medical facility was constructed in 1985 as part of a county-wide comprehensive medical care program linked to Curry General Hospital and is operated by a private medical services corporation. The facility is staffed by a physician and nursing staff and provides regular office call medical care and 24-hour on call emergency treatment.

Transportation of patients on an emergency basis is handled by a community ambulance service operating from Port Orford City Hall. In the case of extreme emergency where the rapid transportation of a patient for long distance is required, Mercy Flights, a non-profit emergency air ambulance service is available from Medford, Oregon.

The Curry County Health Department maintains an office in Port Orford and provides a number of services including; family planning, well-child clinics, health consultation, allergy shots, immunization, and communicable disease information. This office also provides nursing services to the schools in the area on a regular basis. The office is staffed three days a week by a registered nurse from the county health Department staff.

CITIZEN INVOLVEMENT IN THE PORT ORFORD PLANNING PROCESS

Citizen involvement in the words of the Land Conservation and Development Commission goals, means "to develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process."

The governing body charged with preparing and adopting a comprehensive plan shall adopt and publicize a program for citizen involvement that clearly defines the procedures by which the general public will be involved in the on-going land-use planning process.

The citizen involvement program shall be appropriate to the scale of the planning effort. The program shall provide for continuity of citizen participation and of information that enables citizens to identify and comprehend the issues.

Federal, state and regional agencies, and special purpose districts shall coordinate their planning efforts with the affected governing bodies and make use of existing local citizen involvement programs established by counties and cities.

To insure that citizens involvement would become a part of the Port Orford Planning process, a committee was established that broadly represented the community, incorporating the following program:

GOAL: To provide a Citizen/Agency Involvement process that ensures the opportunity for citizens to be involved in all phases of the planning process.

METHOD:

1. To maintain an officially recognized committee from broadly representative geographic areas and with broadly representative interests related to land use planning and land use decisions.

2. To assist the Council with the development of a Citizen's Involvement Program.

3. To have the Committee assist in the implementation of the Citizen Involvement Program.
4. To have the Committee evaluate the Citizen Involvement Program.
5. To maintain selection of committee members by an open, well-publicized process.
6. To make all material related to the process available at convenient, public places.
7. To assure effective two-way communication with citizens and the council.
8. To assist citizens to be involved in all phases of the planning process.
9. To have technical information available and presented in an understandable form.
10. To have information used in policy decisions available in simplified, understandable form.
11. To provide assistance to interpret and effectively use technical information.
12. To provide citizens with an opportunity to receive a response from policy makers.
13. To provide adequate financial support to implement Citizen's Involvement Program.
14. To contact all agencies listed to solicit their participation in the planning process.
15. To provide information to interested agencies regarding the development of a comprehensive plan.

I. To insure the citizens have the opportunity for involvement in every phase of the planning process by:

- A. Contacting all the available media for public notice of:
 1. The schedule of meetings.
 2. The purpose of meetings.
 3. The need for citizen participation throughout the entire planning process.
 4. The meetings are open to the public.
 5. The materials, minutes, and appropriate reference materials will be available to the public at City Hall and the public library.

- B. Providing notices to the residents of Port Orford requesting:
 - 1. Their participation in the planning process.
 - 2. Their concerns and comments on the future development of the community.

- II. Provide technical assistance to the CCI by:
 - A. Providing adequate planning staff to assist the CCI.
 - B. Providing funds for office supplies and other required activities.
 - C. Providing opportunities for CCI and federal, state, city and county officials to meet.
 - D. Insuring that all reports and materials are explained in as clear a style as possible.

- III. Insuring access to city and county officials and providing for two-way communication by:
 - A. Requiring all city departments to assist CCI in its programs.
 - B. Recording all responses to CCI proposals by officials.
 - C. Insuring a response is made to citizens and CCI requests and proposals.
 - D. Involving the media where possible.
 - E. Requesting the minutes of the CCI be submitted to the city council. Insuring a response, comment, or action.

- IV. The City Council will inform the citizens of its actions by:
 - A. Contacting all available media to provide notice of the meetings, their purpose, and results.
 - B. Having the minutes of all council meetings available for public review.

- V. Human, financial and informational resources will be provided by:
 - A. The planning staff who will provide adequate resources to complete the planning process.
 - B. Application for planning assistance grants.

AGENCY INVOLVEMENT

Over thirty different agencies and organizations were specifically asked to participate in the planning process by letter. Response from these agencies was excellent. Many sent personnel to the citizen's meetings and assisted in the development of inventories and policies.

MEDIA INVOLVEMENT

The major news source for the area is the weekly Port Orford News. The paper actively supported the planning process by publishing news releases when asked, and reporting coverage during public meetings.

There are no local radio or television stations for the Port Orford area.

By far the most effective means of communication remains word of mouth. The citizens involvement committee has been extremely active in "spreading the word" throughout Port Orford.

MODIFICATION

Modification of the Comprehensive Plan may be necessary at the times scheduled by LCDC for periodic review of the plan. Citizens in the area and any affected governmental unit will be given the opportunity to review and comment prior to any changes in the plan.

Changes in the plan may be initiated by the City Council, the Planning Commission, or by a property owner in an affected area or his authorized agent. Changes initiated by property owners and the Planning Commission will be considered by the Planning Commission in a public hearing and the resulting recommendations will be sent to the City Council for final approval.

PUBLIC FACILITIES

GOVERNMENT OFFICES

Port Orford City Hall occupies a half-block area just to the west of U.S. 101 in the north part of town. Access to City Hall is provided by 19th, 20th and Idaho streets and is both safe and convenient. The building contains the City Offices, City Council Chambers, the Fire Department, the Port Orford Public Library, and the Community ambulance garage. Parking for these facilities is located on the three surrounding streets and in a privately owned parking lot to the east. Parking facilities are adequate both in quality and quantity, but this would not be the case if the use of the privately owned parking lot were no longer available.

Improvements to the building include the addition of new City Council Chambers and a new facility for the Public Library, making the City Hall complex a complete and attractive facility. No major additions or improvements are presently foreseen. The location of City Hall is convenient to the City Park and Garrison Lake area, and its off-highway site is readily visible from U.S. 101.

WATER SYSTEM

The Port Orford Municipal water system, shown on Map 19, serves all of the water users and covers most of the physical area within the existing city limits, as well as relatively limited unincorporated areas immediately adjacent to the city. The present water source for municipal water is a small reservoir on the north fork of Hubbard Creek located about 3/4 mile east of the city limits. Water from the reservoir is pumped via a pressure line to a 185,000 gallon reservoir which is the main storage and distribution center. Settling and chlorination are presently the only means of water treatment. The existing water system provides services to an estimated 440 residences and businesses. Also a part of the existing distribution system is a 17,000 gallon storage tank located on the Heads at the Old Coast Guard Station filtration plant.

TABLE 35
MONTHLY WATER TOTALS - 1975

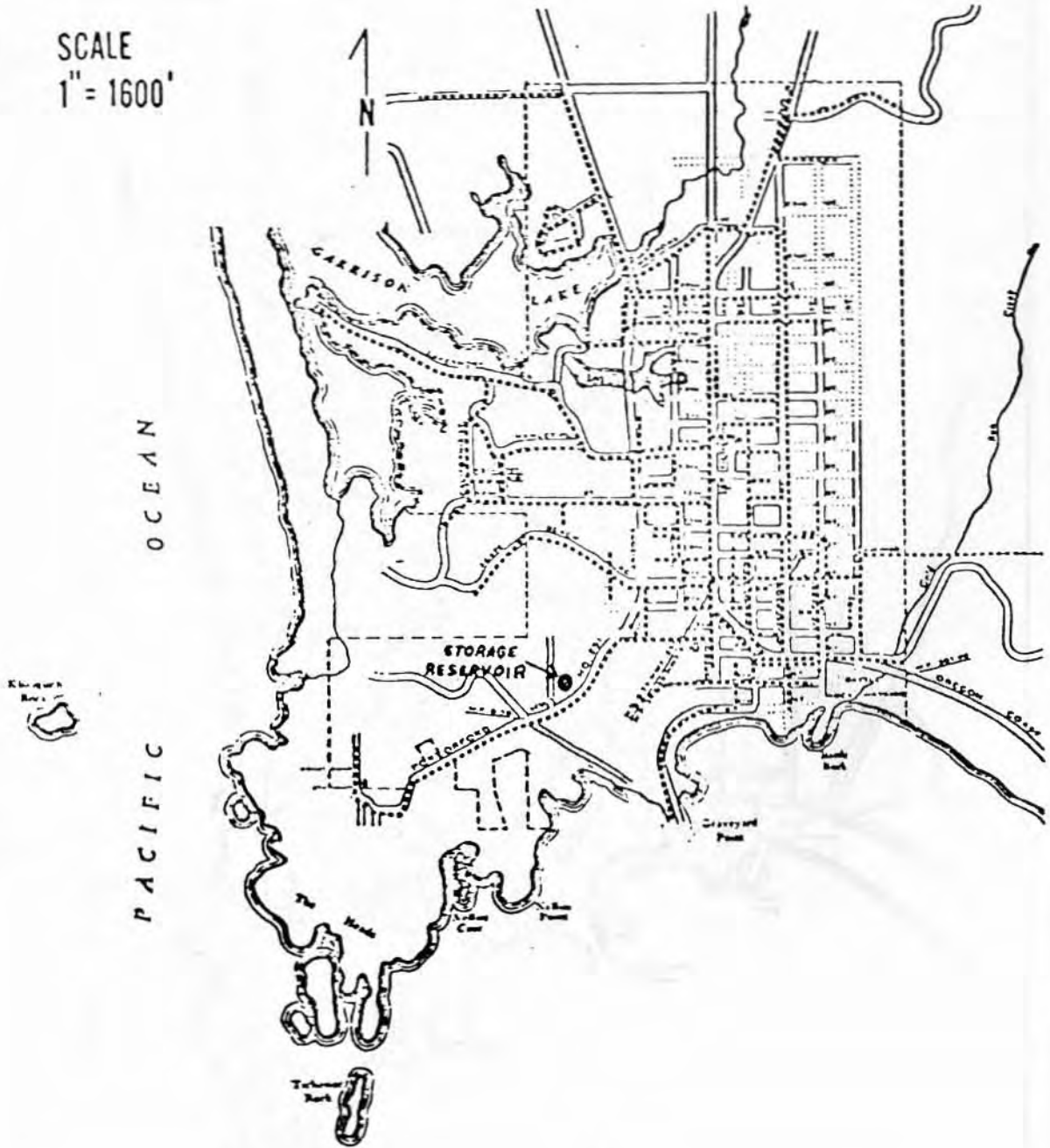
<u>1975</u>	<u>Gallons</u>	<u>Feb. 1988-Feb.1989</u>
December	8,084,000	Gallons
November	7,012,000	
October	8,909,000	
September	10,932,000	
August	11,598,000]	
July	9,881,000	
June	8,326,000	
May	6,836,000	
April	5,389,000	
March	5,079,000	
February	4,671,000	
January	5,183,000	
 TOTAL	 99,512,000	 46,234,772
 Average	 8,292,666	

Improvement plans for the water distribution system primarily incorporate replacement of old lines and consolidation of the existing distribution system. Map 19 shows proposed improvements in the municipal water distribution system. The proposed improvements to the distribution system will be made on a funds available basis. In general, improvements within the city limits to consolidate and replace existing water lines have the highest priority in terms of timing.

EXISTING WATER
SYSTEM
PORT ORFORD, OREGON

EXISTING SYSTEM

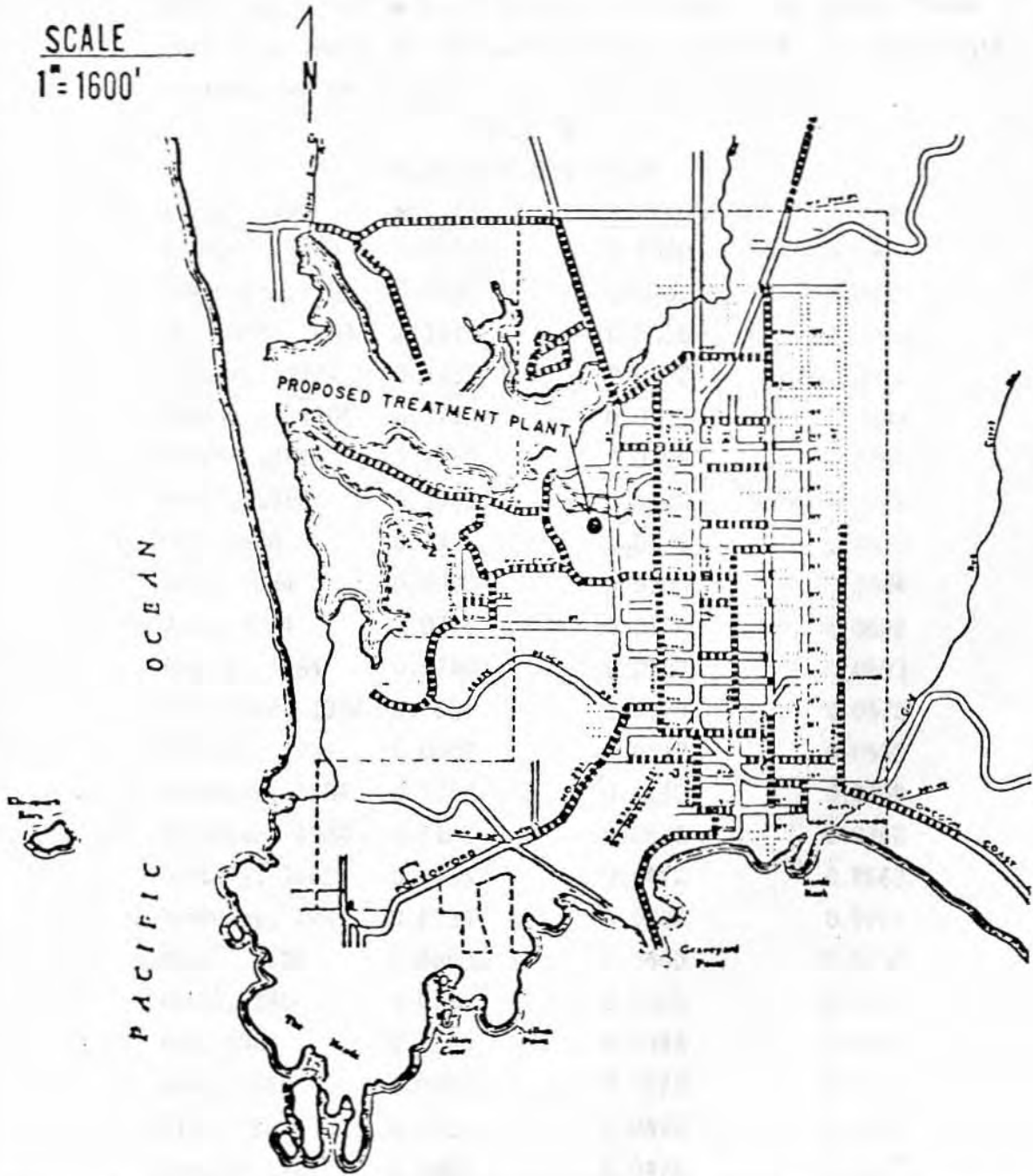
SCALE
1" = 1600'



PROPOSED WATER
SYSTEM
PORT ORFORD, OREGON

PROPOSED SYSTEM

SCALE
1" = 1600'



SEWERAGE FACILITIES

Port Orford is served by an extended aeration treatment plant which has a design population of 1,250 with a flow of 0.125 mgd. At the present time, about 720 people are served and the average flow ranges from 0.04 to 0.08 mgd. (mgd- million gallons daily). Because the average flow is usually less than one half of the plant capacity, the treatment process is very efficient. Following secondary treatment, the sewage flows through a series of polishing lagoons prior to discharge into a creek, which in turn flows into Garrison Lake.

TABLE 36

AVERAGE MONTHLY FLOW

<u>Month/Year</u>	<u>Maximum</u>	<u>Minimum</u>	<u>Average</u>
October, 1983	0.0598	0.0368	0.0481
November, 1983	0.1550	0.0460	0.0667
December, 1983	0.1513	0.0655	0.0383
January, 1984	0.1032	0.0502	0.0712
February, 1984	0.1290	0.0550	0.0747
March, 1984	0.1050	0.0496	0.0767
April, 1984	0.1013	0.0440	0.0645
May, 1984	0.1335	0.0525	0.0615
June, 1984	0.0800	0.0500	0.0584
July, 1984	0.0715	0.0470	0.0602
August, 1984	0.0740	0.0220	0.0603
September, 1984	0.0680	0.0290	0.0572
October, 1984	0.0660	0.0342	0.0512
November, 1984	0.1368	0.0190	0.0839
December, 1984	0.1122	0.0510	0.0762
January, 1985	0.0736	0.0418	0.0563
February, 1985	0.0730	0.0485	0.0625
March, 1985	0.0880	0.0500	0.0636
April, 1985	0.0730	0.0325	0.0513
May, 1985	0.0560	0.0345	0.0441
June, 1985	0.0805	0.0273	0.0555
July, 1985	0.0750	0.0490	0.0572
August, 1985	0.0802	0.0470	0.0604
September, 1985	(Data not available)		
October, 1985	0.0810	0.0445	0.0566
2 Year Period	0.1550	0.0190	0.0627

In spite of the high level of treatment, Garrison Lake is unsuitable to receive sewage plant effluent due to plant growth from increased nutrient levels. As the sewered population increases, the treatment efficiency will drop and the resulting waste loads could have a negative effect on the lake. The City has recognized the possible negative impact of the continued discharge of effluent into Garrison Lake on the water quality of the lake and recently completed a study of the problem.¹ This study concluded that there is a significantly higher concentration of nutrients in the lake near the sewage outfall which are not a health hazard but do promote the growth of algae and aquatic plants. This problem is related to the discharge of effluent from the sewage treatment plant and failing on-site sewage disposal systems into the lake.

The existing sewerage collection system serves 70-75% of the population of Port Orford. No service lines serve any areas outside the city limits at present. An evaluation of potential contaminant sources which could affect the lake indicate five separate areas that should be served by sewer lines. These areas are 1) 9th Street and Agate Beach Trailer Park; 2) west of Port Orford Loop Road near Hensley Hill Road; 3) Jackson Street between 16th and 18th Streets; 4) Paradise Point Road west of Arizona and 5) Port Orford Loop Road north of the city limits. The first three of these areas are within the corporate limit of the City, however, the last two areas are unincorporated areas adjacent to the northern city boundary.¹

Because of wastes presently receiving adequate treatment and because overall capacity of the treatment facility is also adequate, no improvements to the sewage treatment plant itself are foreseen for the planning period. However, improvement as to the discharge of the waste water is needed. Viable options to improve the present the present sewage discharge into the lake include relocation of the outfall to; 1) an ocean discharge; 2) the lake outlet for winter discharge and either hold discharge or spray irrigation of discharge during summer.¹

¹Dyer, Gary, 1985, "Garrison Lake Sewerage Improvement Plan, City of Port Orford, Oregon" 89 p.

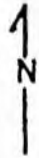
The relocation of the outfall to an ocean discharge would require a large pumping station, over 3000 feet of pressure main, and a substantial structure to protect the submarine outfall pipe from storms, wave action, erosion, silting-in and other natural factors. The expense of designing and constructing this outfall system probably makes this option cost prohibitive for the city. The relocation of the outfall to the lake outlet is possible; However, discharge is not possible at this location when there is low flow from the lake (late summer and early fall). During the non-discharge periods the effluent would be held in lagoons, a seepage pit, or used for irrigation. This option would possibly cost less than an ocean outfall but may not be possible due to land area, groundwater, soil and other site limitations. The fiscal limitations of the city require that the existing discharge into the lake continue until federal or state funding is available for relocation of the outfall to one of the above described optional sites.

Extension of the sewerage collection system will depend primarily on the availability of funding. Trunk lines are planned into all of the areas previously mentioned as being unsewered. Funds are presently being sought to construct sewer lines in the five areas within the city and along its northerly boundary which are know to contain contaminant sources. Map 21 shows the proposed sewage improvement areas.

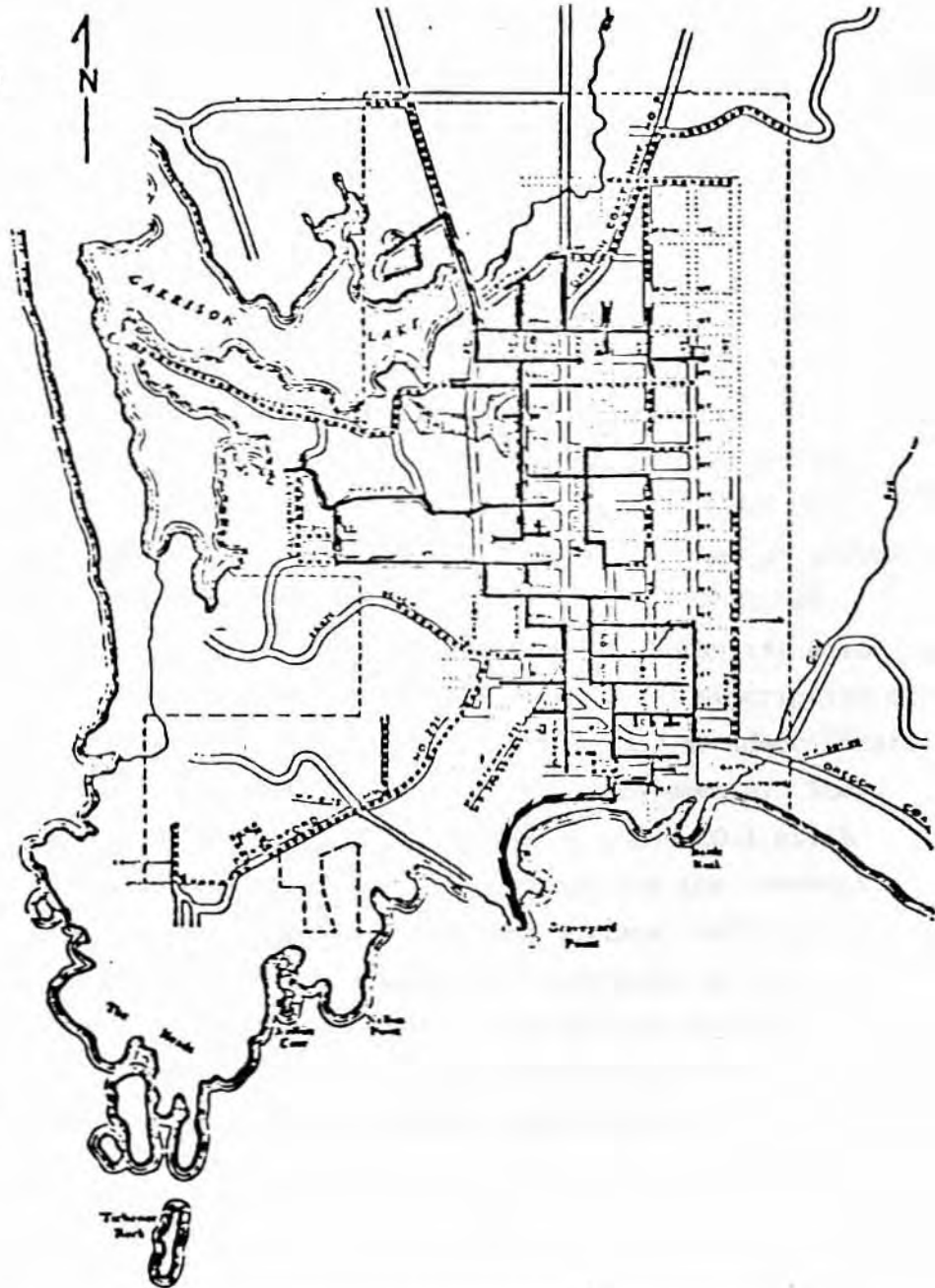
EXISTING & PROPOSED
SEWERAGE SYSTEM
PORT ORFORD, ORE.

- Existing System
- - - Pressure Line
- Proposed System

Scale
1" = 1600'



PACIFIC OCEAN



STREET SYSTEM

U.S. 101 is the primary route in Port Orford for both through and local traffic, and extends for about 1.5 miles on a general north/south axis. Approaches to the business district from both the north and south are presently two lanes, widening to four travel lanes plus two parking lanes from the Battle Rock area to 20th Street. U.S. 101 is part of the Federal Aid Primary System. Highway 251, which includes part of 9th Street and most of Coast Guard Road, is included in the Federal Aid Secondary System. The relocation of U.S. 101 represents a major improvement in traffic circulation and access for the north Port Orford area, opening a previously inaccessible area and replacing a slow and congested section of the old highway. Provision of an access to the new highway has provided the opportunity for creation of much-needed direct access to Paradise Point Road.

The condition of local city streets varies considerably with location and use factors, ranging from platted but unimproved to full paving. Recently the City completed an inventory of all streets within the city and UGB which included 1) a map of all existing streets and roads, 2) classification of streets and roads based on use and surface, 3) description of the physical condition of all streets and roads, 4) identification of deficiencies and needs and 5) proposed improvements. There are 34.1 miles of roadway within the UGB of which 20.1 miles are within the city limits. Table 37 summarizes the inventory results with respect to surface type and surface conditions. In general, about 23% of the roadways are considered in fair condition and could be significantly improved at minimal cost. However, 7% of the roadways are classified as poor and very poor condition and major improvements are required. (Dyer, G. 1985).

The following improvements are considered to be the most important in order to improve the traffic flow within the city:

- a) Idaho Street should be improved between 9th Street and 20th Street as a collector street on the west side of U.S. 101.
- b) Jackson Street should be improved from U.S. 101 to 25th Street as a collector street on the east side of U.S. 101.
- c) Local street improvements are needed at 9th and Washington, 15th Street between Idaho and U.S. 101, and Arizona Street between 9th Street and 12th Street.

See Map 22 for the location of the proposed street improvements.

SOLID WASTE

A Solid Waste disposal site is located about $\frac{1}{4}$ mile north of Port Orford City limits and is presently being used as a modified land-fill. The relatively level site has been substantially cleared, and has a perimeter screen of dense coastal vegetation. The Port Orford disposal area includes a total of some 36 acres, about 6 or 7 acres of which have existing buried wastes.

The site has the following attributes:

1. It is county-owned and has a capacity for approximately 18-20 years of continued use, if used as a local land-fill for the Port Orford area.
2. Soil conditions are favorable for use as a land-fill site.
3. Access roads are in good condition and have good alignment.
4. There has been little residential development in the immediate area.

The following refuse volumes have been used for design purposes.

TABLE 37

INVENTORY OF STREETS WITHIN THE
URBAN GROWTH BOUNDARY

<u>Location</u>	
Inside City Limits	20.1 Miles
Outside City Limits	14.0 Miles
	<hr/>
Total Inside UGB	34.1 Miles
<u>Surface Type</u>	
Asphalt Concrete (A)	19.5 Miles
Bituminous (B)	8.9 Miles
Gravel (G)	4.9 Miles
Dirt (D)	0.8 Miles
	<hr/>
Total	34.1 Miles
<u>Surface Condition</u>	
Very Good (1)	12.1 Miles
Good (2)	7.7 Miles
Fair (3)	7.8 Miles
Poor (4)	4.4 Miles
Very Poor (5)	2.1 Miles
	<hr/>
Total	34.1 Miles

TABLE 38
PORT ORFORD REFUSE VOLUMES*

Residents served	2,600
Residential refuse, Cu. Yds.-day	25
Commercial refuse " " "	13
Recreation refuse " " "	5
Industrial refuse " " "	--
<hr style="width: 20%; margin-left: auto; margin-right: 0;"/>	
Total Cubic yards/day	43
Yards/week (rounded)	280
Yards/year (rounded)	15,000
Compacted 4:1 (rounded)	4,000
Soil cover 1:4 (rounded)	1,000
Annual Volume, yards	5,000

*Interim Operating Plans for Curry County S.W. Disposal Sites, July 30, 1975.

The Port Orford land fill is generally a favorable location for disposal of solid waste, and is an integral part of the Curry County Solid Waste Plan. The Port Orford land fill is the only authorized land fill in Curry County which accepts solid waste without being reduced in volume by combustion. This site serves the northern part of Curry County including the City of Port Orford and is integrated into a County-wide

waste management plan which is managed by private enterprise under a county franchise. The current Curry County Solid Waste Plan is approved by DEQ until 1989 at which time it will be revised under requirement of law. It is believed that the Port Orford land fill site will remain essentially as presently established because of the large land area remaining for disposal pit expansion.

Operating plans include segregating burnables and recoverable materials into areas separate from the land-fill. The site is fenced and has a gate. An attendant is present during operating hours to direct users, and collect fees. Under the Department of Environmental Quality, Solid Waste Disposal Permit, which is effective until 1978, burning of certain types of waste is allowed on the site.

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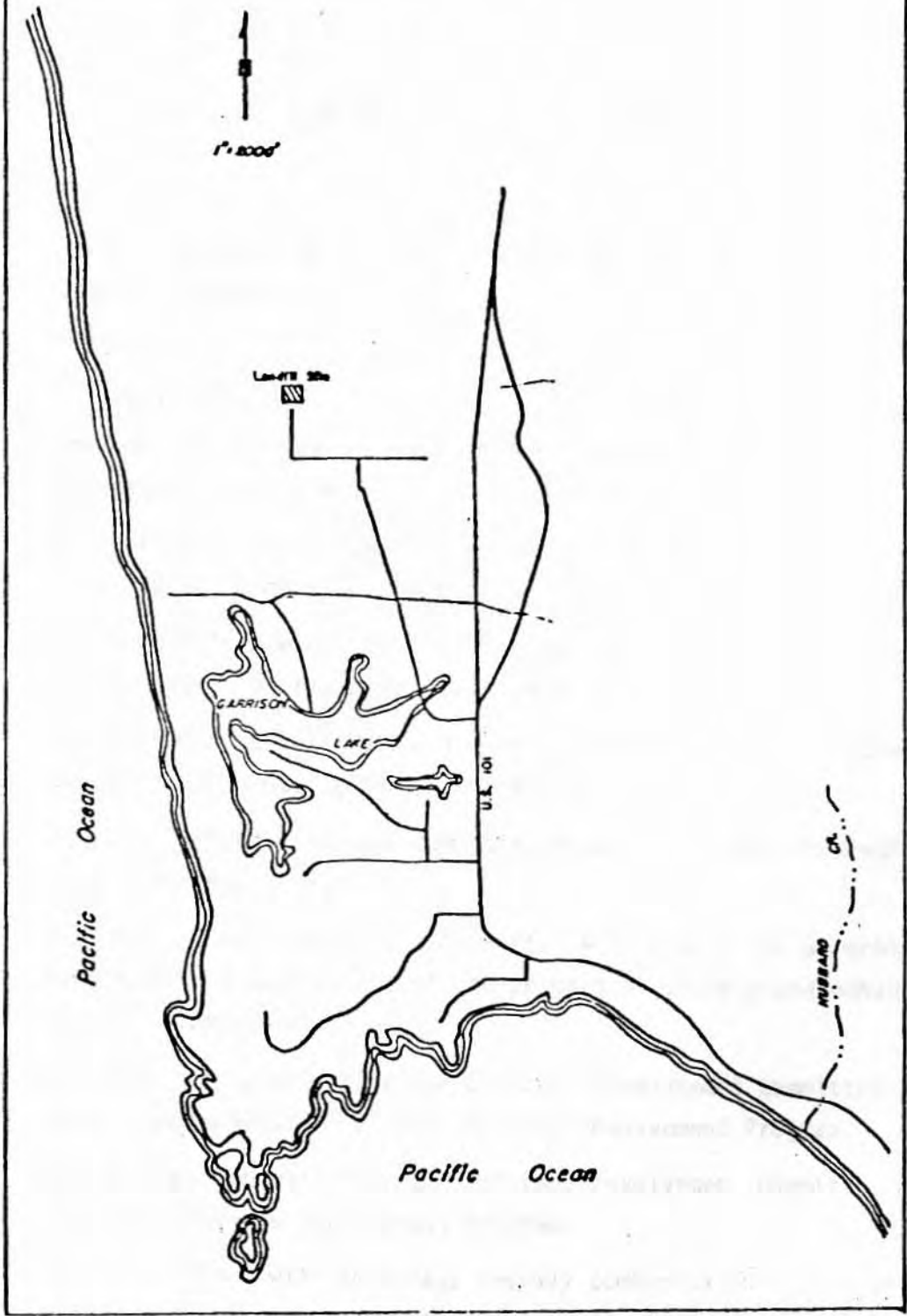
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SOLID WASTE
PORT ORFORD, OREGON



PORT ORFORD GOALS

GOAL #1: CITIZENS INVOLVEMENT

GOAL

To provide for citizen involvement in all phases of the planning process.

POLICIES

1. Port Orford will have all planning materials, reports and inventories related to the planning process available at convenient, public places.
2. Port Orford will provide citizens with the opportunity to identify and comprehend issues.
3. Port Orford will provide for widespread citizen involvement in all phases of the planning process.
4. Port Orford will have citizen involvement committee, with broadly represented geographic areas and interests.
5. Port Orford will have committee members selected in a well-publicized and open manner.
6. The Citizen Involvement Committee will assist the governing body with the development of the program to promote and enhance citizen involvement.
7. Port Orford will have the Citizens Involvement Committee assist in the implementation of the Citizens Involvement Program.
8. Port Orford will have the Citizens Involvement Committee evaluate the Citizens Involvement Program.
9. Port Orford will encourage two-way communications between the Citizens Involvement Committee, the public and the governing body.
10. Port Orford will assure that technical planning information is available in understandable terms.
11. Port Orford will provide assistance in interpreting and effectively utilizing technical information.

12. Port Orford will have information used in all Planning policy decisions available in understandable and summarized form.
13. Port Orford will encourage citizens to respond to decisions of policy makers.
14. Port Orford will provide financial support to comprehensive Planning within funds available.

GOAL #2: FOREST AND AGRICULTURAL LANDS

GOAL

To conserve and encourage appropriate utilization of agricultural and forest lands in areas contiguous to the city.

POLICIES

1. Port Orford will encourage an orderly and efficient transition from rural to urban land.
2. Port Orford will conserve forest and agricultural land by encouraging urban development within the Urban Growth area.
3. Port Orford will protect water shed areas for Port Orford water supply within the Urban Growth area by encouraging riparian vegetation protection.

GOAL #3: HISTORICAL

GOAL

To conserve historical and archeological areas within the city and urban growth area.

POLICIES

1. Port Orford will encourage community growth and development which enhances, rather than conflicts with areas designated as having historical or archeological significance.
2. Port Orford will encourage the conservation of historical and archeological areas by encouraging public ownership of appropriate sites.

3. Port Orford will encourage the conservation of archeological sites by limiting the access to information which reveals the locations and types of sites in and around Port Orford.
4. Port Orford will encourage the enhancement of historical sites by developing regulations which assist owners in maintaining their sites.
5. Port Orford will encourage archeological institutions to study and remove artifacts from archeological sites.
6. Port Orford will identify sites of archeological significance and consider ordinances to prohibit development prior to the removal of artifacts.
7. Port Orford will urge cooperation with local, state and federal agencies in designing a program which provides incentives for owners of historical sites to maintain their property.

GOAL #4: OPEN SPACE

GOAL

To maintain and enhance the character of the city by conserving adequate open space to assist the maintenance of an adequate scenic, healthy and visually attractive landscape.

POLICIES

1. Port Orford will encourage the adequate provision of open space by orderly development within the city.
2. Port Orford will promote the development of parks and open spaces as funds permit as additional open space areas which can be utilized by its citizens.
3. Port Orford will cooperate with county government in developing growth policies in areas contiguous with the city which are compatible with the City of Port Orford Comprehensive Plan.

GOAL #5: VISUAL RESOURCES

GOAL

To conserve and enhance the visual quality of the City of Port Orford and urban growth area.

POLICIES

1. Port Orford will protect the visual resources of the lake, bluffs, and shoreland by encouraging systematic and complimentary development.
2. Port Orford plans to enhance the visual quality of the city and surrounding area by encouraging the improvement of existing development along a possible central theme.
3. Port Orford will consider the impact of development and existing conditions on visual resources when making land use decisions under its planning ordinances.

GOAL #6: AIR, LAND, AND WATER QUALITY

GOAL

To maintain and improve the quality of the air, land, and water resources in the city and urban growth area.

POLICIES

1. Port Orford will conserve and improve water quality and quantity by encouraging the protection of watersheds, lakes, rivers, and streams in the city and urban growth area.
2. Port Orford will conserve and enhance land quality by encouraging orderly growth and development through the implementation of its Comprehensive Plan and Planning Ordinances.
3. Port Orford will conserve air quality by encouraging the development of industries which follow the Clean Air Act of 1970 emission standards and encouraging the development of non-polluting industry.
4. Port Orford will conserve area-wide water, air and land resource quality by encouraging coordination with the County and State agencies that control lands lying outside the city.

GOAL #7: AREAS SUBJECT TO NATURAL DISASTERS AND HAZARDS

GOAL

To protect life and property from natural disasters and hazards in the City of Port Orford and its urban growth area.

POLICIES

1. Port Orford will provide protection from flooding by limiting further development in flood prone areas and implementing its flood damage prevention ordinance.
2. Port Orford will encourage reasonable protection from the occurrence of landslides by encouraging the retention of protective vegetation cover on steeply sloping areas which are subject to erosion.
3. Port Orford will develop ordinances which encourage safe land use and construction techniques in hazard areas.
4. Port Orford will encourage development of communication systems for disaster warning and utilize these systems to protect its citizens.

GOAL #8: RECREATIONAL AREAS

GOAL

To satisfy the recreational needs of Port Orford and visitors by providing adequate recreational and recreation-oriented facilities.

POLICIES

1. Port Orford will enhance the recreational appeal of the city by encouraging the development of increased access to existing facilities and attractions.
2. Port Orford will enhance the recreational appeal of the city by protecting the fish and wildlife habitats in the area in order to further recreational opportunities for outdoor sports.

3. Port Orford will encourage development of publicly owned land, in and contiguous to Port Orford, for recreational purposes.
4. Port Orford will consider the potential impact of recreation when reviewing proposed development plans.
5. Port Orford will pursue all available funding services to increase recreational opportunities in the Port Orford area.
6. Port Orford will encourage the State to further develop Paradise Point State Park.

GOAL #9: ECONOMICS, INDUSTRY, AND COMMERCE

GOAL

To diversify and improve the economy of Port Orford while protecting the natural processes of the environment commensurate with the character of the city.

POLICIES

1. Port Orford intends to meet the economic needs of Port Orford by encouraging the development of light, non-polluting industry and industries which meet State pollution control laws.
2. Port Orford will encourage local processing of wood into useable items.
3. Port Orford will encourage economic activities which provide year-round employment and employment of seasonal nature that does not conflict with existing seasonal occupations.
4. Port Orford will encourage and support efforts to improve the Port facilities and Harbor.
5. Port Orford will encourage improvement of the Cape Blanco Airport facilities to attract tourists, sportsmen and light industry.
6. Port Orford will encourage cottage industry in the City of Port Orford.

7. Port Orford will implement its planning ordinances to encourage the development of a variety of industries and home occupations which meet State and Federal regulations.
8. Port Orford will implement its planning ordinances to encourage the development of small businesses and industries which provide year-round employment utilizing wood and other resources available locally.
9. Port Orford will attempt to stimulate the tourism industry.
10. Port Orford will develop incentives which encourage improvement of commercial structures and new development along a town theme.
11. Port Orford will attempt to stimulate economic growth by encouraging tourism through the development of growth and rehabilitation policies which follow a town theme.
12. Port Orford will explore all possibilities of providing incentives to attract appropriate industries.

GOAL #10: HOUSING

GOAL

To develop a variety of adequate, reasonably priced quality housing and rental units for the residents and visitors of Port Orford in order to meet their needs.

POLICIES

1. Port Orford will provide housing for Port Orford residents by encouraging the provision of adequate numbers of housing at a price range commensurate with the ability of its citizens to afford.
2. Port Orford will provide for mobile homes by designating appropriate areas for the location of mobile home.
3. Port Orford will insure construction of quality housing by continual enforcement and up-dating of the city's building codes.

4. Port Orford will encourage the up-grading of housing stock in the city.
5. Port Orford will provide for multi-family housing by designating appropriate areas for this type of residential use in its comprehensive plan and planning ordinances.
6. Port Orford encourages cooperative action among local, state and federal agencies, private industry, financing institutions, and citizens in meeting the city's housing needs.
7. Port Orford will develop city services and facilities to enhance the livability and desirability of Port Orford within funds available.
8. Port Orford will provide for the development of mobile home parks that are safe, appealing and well-maintained through the implementation of its comprehensive plan and planning ordinances.
9. Port Orford encourages the rehabilitation of existing housing in need of repair.
10. Port Orford encourages the production of reasonably priced housing for low and moderate income families through increased cooperation and involvement of private enterprise.
11. Port Orford encourages state taxing policies which do not penalize property owners for maintaining and improving their property.
12. Port Orford encourages the utilization of local human resources of all ages in the upgrading of the areas housing.

GOAL #11: PUBLIC FACILITIES AND SERVICES

GOAL

To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban development while encouraging the environmental and socio-economic well-being of the city.

POLICIES

1. Port Orford will pursue an orderly expansion of street, sewer, solid waste, and water facilities by coordinating future development with the ability of the city to provide these services on a long-term basis.
2. Port Orford will promote the social, safety, and health well-being of the citizens and visitors of Port Orford by encouraging adequate medical, social, police, and fire services.
3. Port Orford will periodically develop Community Improvement Plans which establish long range development and services priorities within the available resources.
4. Port Orford will encourage housing development in areas which requires minimal extensions of city services in order to efficiently utilize the city utility systems.
5. Port Orford will encourage the maintenance of solid waste facilities which are located in northern Curry County and are an integral part of the County solid waste plan.

GOAL #12: ENERGY

GOAL

To conserve energy and explore alternative technologies appropriate to the Port Orford area for the generation of energy.

POLICIES

1. Port Orford will encourage the development of potential energy resources in Port Orford.
2. Port Orford will encourage the conservation of energy by development of transportation systems that allow for the efficient and safe movement of people and goods within the city.
3. Port Orford will encourage the development of bicycle, air, water, and rail transportation systems to conserve energy.
4. Port Orford will encourage the use of beachwood as a heating source to conserve energy.

5. Port Orford will encourage residential, commercial, and industrial development within the city to concentrate employment, services and residents, thus travel distances and use of energy will be lessened.
6. Port Orford will encourage and support local efforts to develop wind and solar energy generation programs.
7. Port Orford will encourage programs of housing rehabilitation and insulation as part of the implementation of its building codes.

GOAL #13: TRANSPORTATION

GOAL

To provide a safe and efficient transportation system for current and future demands within the city and urban growth area.

POLICIES

1. Port Orford will encourage the continued development of quality streets and efficient traffic control systems which ensure maximum safety to pedestrians, bicyclists, and motorists by establishing long range priorities.
2. Port Orford will encourage efficient commodity transport by urging the development of regularly scheduled freight delivery and pickup services to and from the city.
3. Port Orford will encourage and assist the efforts to develop an upgraded east-west highway linking Curry County with the interstate highway system.
4. Port Orford will encourage a diverse transportation system including air, water and rail facilities.
5. Port Orford will encourage improvements and developments of the Cape Blanco Airport facilities.
6. Port Orford will assist the development of transportation systems in the area in such a way that local, regional, and state transportation needs; needs of the transportation disadvantaged; social consequences; social, economic, and environ-

onmental impacts; and energy conservation will be accomodated.

7. Port Orford will assist the development of the Port of Port Orford as the only practical means of water transportation to and from the city.

8. Port Orford will attempt to develop a variety of air, water and land transportation systems including Port, Airport, Highway, Bike-ways, and Trail, improvements, including the Oregon Coastal Bikeways and Trails Programs.

9. Port Orford will encourage appropriate mass-transit and commodity transportation services in, and through, Port Orford.

GOAL #14: LAND USE PLANNING

GOAL

To provide a policy framework and factual base for land use decision making by establishing a land use planning process for the city.

POLICIES

1. Port Orford will provide a basis for plan implementation by developing a broad factual base which considers social, economic and environmental concerns.
2. Port Orford will ensure an adequate factual base for policy decisions in the Comprehensive Plan by ensuring the inclusion of inventories in the plan which reflect the current conditions within the city and surrounding area.
3. Port Orford will provide implementing ordinances for the plan that shall be instituted, reviewed and periodically revised.
4. Port Orford will ensure coordination of the city Comprehensive Plan with the plans of other affected governmental agencies.
5. Port Orford will ensure that the city land use planning process shall proceed in accordance with applicable statutory requirements.

6. Port Orford will update its Comprehensive Plan and inventories on a regular basis in response to the changing conditions within the city and its urban area.
7. Port Orford will encourage that lands within the city's Urban Growth Boundary are available for urban development. The city will require that such lands may only be converted to urban uses through annexation to the city when a minimal level of key urban facilities and services can be provided and the extension of those facilities is logical with regard to timing and public funding.

GOAL #15: TOURISM

GOAL

To improve the awareness of the City of Port Orford for tourists by establishing a City development theme.

POLICIES

1. Port Orford will encourage state agencies to provide directional signs to city attractions including boat ramps, the harbor, parks, beaches and the City Hall.
2. Port Orford will attempt to enhance the appeal of the City by encouraging the upgrading of existing structures and the construction of new structures on Highway 101, along a common development theme.
3. Port Orford will consider the potential impact of tourism when reviewing development plans under its Comprehensive Plan and Planning Ordinances.

GOAL #16: GARRISON LAKE

GOAL

To preserve Garrison Lake as a physical and recreational resource for the City of Port Orford.

POLICIES

1. Port Orford will encourage land uses in the vicinity of the Lake which enhance rather than degrade the value of Garrison Lake. to the city.

2. Port Orford will control land use in the vicinity of the Lake to maintain Garrison Lake as a fisheries resource.
3. Port Orford will control land use in the vicinity of the Lake to maintain the water quality of Garrison Lake.
4. Port Orford will ensure continued public access and use of Garrison Lake for recreational purposes.
5. Port Orford will seek uniform management of Garrison Lake by annexation of the lake into the city and by formal management agreement with the State of Oregon.
6. Port Orford will seek to control undesirable aquatic vegetation through maintenance program and weed abatement.
7. Port Orford will implement a municipal policy for dredging and fill activity in Garrison Lake.
8. Port Orford will develop municipal policy to guide management of Garrison Lake as a warm water fishery.
9. Port Orford will implement its flood hazard prevention ordinance to abate flooding of new development in the vicinity of Garrison Lake.
10. Port Orford will seek to relocate the sewer treatment plant outfall from the lake to an ocean discharge or lake outlet discharge as funds become available for the project, in order to slow the nutrient enrichment of Garrison Lake.
11. Port Orford will seek to extend sewage lines into areas around Garrison Lake and stop the use of on-site sewage systems which can leak effluent into the lake and cause nutrient enrichment of lake waters.

GOAL #17: OCEAN RESOURCES

GOAL

To preserve the resources of the Pacific Ocean to the benefit of the City of Port Orford.

POLICIES

Port Orford will require the preparation of ocean resources inventories as specified by Statewide Planning Goal 19 in the event that the port jetty facilities are expanded or modified; or an ocean outfall is constructed for the city sewage treatment plant.

LAND USE CLASSIFICATIONS

The Port Orford Comprehensive Plan contains eight broad land use classifications which are listed below, and followed by a brief description:

COMMERCIAL

MEDIUM - HIGH DENSITY RESIDENTIAL

LOW - MEDIUM DENSITY RESIDENTIAL

INDUSTRIAL

PUBLIC AND SEMI-PUBLIC

CONSERVATION OF NATURAL RESOURCES

RECREATION-ORIENTED

MARINE ACTIVITY

COMMERCIAL

Purpose: This classification provides areas suitable for the continuance and expansion of the full range of commercial activities to meet the commercial needs of Port Orford's residents and visitors.

Appropriate areas: Port Orford's existing commercial centers and areas adjacent to these centers are appropriate for the commercial classification. Availability of public utilities, accessibility, adequate parking, and access for pedestrians are important considerations in making these areas ideal for continued commercial development.

MEDIUM TO HIGH DENSITY RESIDENTIAL

Purpose: This classification is intended to provide areas suitable for residential development in the medium to high density range and consistent with the present character of the city.

This designation should include multiple as well as single family dwellings and is suitable for residential densities of two dwelling units or greater per acre.

Appropriate areas: This classification is best suited to areas within or adjacent to the city limits. In these areas city water and/or sewerage facilities are either available or could be provided by reasonable extensions of existing lines. These areas are served by streets and roads which are adequate to serve higher traffic volumes, or are proposed for such facilities. These areas are within reasonable proximity to schools, recreational facilities, and commercial centers.

LOW TO MEDIUM DENSITY RESIDENTIAL

Purpose: This classification recognizes areas where residential development of low and medium densities are appropriate and desirable. It is suitable for residential densities of approximately zero to four dwelling units per acre.

Appropriate areas: Areas best suited to low to medium density residential designation are those outside the city limits. Factors encouraging such development include the desire of many people to live in a more rural setting, lack of appropriate municipal services, unsuitable natural conditions for higher use densities, and the availability of other land more suitable for higher density development.

INDUSTRIAL

Purpose: To provide areas suitable and desirable for 'heavy' commercial uses such as lumber yards, repair shops, storage yards and wholesale houses, and for

industrial uses which do not possess nuisance characteristics such as noise, dust, smoke, odor, fire or explosion hazards. Heavier industrial activities may be allowed on a permit basis.

Appropriate areas: Includes areas which have industrial potential due to good access to roads, highways, and other transportation and which have the necessary services or to which the necessary services can readily be provided. Industrial development in such areas should have minimal adverse impact on other adjacent land uses in terms of nuisance characteristics.

PUBLIC AND SEMI-PUBLIC FACILITIES

Purpose: This classification designates land to be used for public and semi-public facilities such as schools, government offices, utilities, cemeteries, and public maintenance yards; sufficiently large areas are indicated through mapping, however, not all appropriate areas are shown.

Appropriate areas: Areas which are presently public and semi-public and areas planned for future public and semi-public use are appropriate sites for this classification.

CONSERVATION

Purpose: This classification is intended to apply to areas which have natural features which contribute basic benefits to the Port Orford area as a whole, including fish and wildlife habitat, spawning areas, moderation of siltation, erosion, and water temperature, and recreational use. While not intended as preservation areas, activities in conservation areas shall be limited to

those which will not have an unacceptable adverse impact on those basic benefits.

Appropriate areas: The log pond and marshlands in the Silver Butte Creek and Mill Creek areas of Garrison Lake are appropriate for this classification.

RECREATION-ORIENTED

Purpose: This classification is intended to provide areas of both developed and undeveloped recreational uses and open space, and other appropriate public uses.

Appropriate areas: This classification is appropriate for existing public parks, proposed park and recreational land, and for other existing land which is used for and is suitable for recreational purposes. Land adjoining and providing access to the ocean and Garrison Lake and other areas not suitable for building due to other conditions are appropriate.

MARINE ACTIVITY

Purpose: To provide areas suitable and desirable for water-dependent and water-related recreational, commercial, and industrial uses which do not possess nuisance characteristics such as excessive noise, dust, smoke, odor, fire, or explosion hazards. Heavier water-dependent and related uses may be allowed on a permit basis.

Appropriate Areas: Includes areas which have potential for multiple types of water-dependent and water-related uses in shoreland locations, including the Port of Port Orford and suitable adjacent areas.

URBAN AND URBANIZABLE LANDS

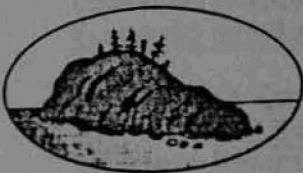
The urban growth boundary as established for Port Orford and adjacent areas is designed to separate urban and urbanizable lands from rural lands, and to provide for an orderly and efficient transition from rural to urban land use. The urban growth boundary is based on the need of the Port Orford area to accommodate urban growth, the need for housing, the need for employment opportunities, and to provide for the continued livability of the area as a whole.

The urban growth boundary, in conjunction with plan implementation measures, is designed to allow flexibility in housing and other development in terms of location, type, and density, and to include buildable lands which are available, suitable and necessary for these uses. It includes those areas contiguous to the present city limits and outlying areas which presently receive or which could logically and economically receive urban-type public facilities and services.

The urban growth boundary includes existing developed and developing areas adjacent to the City of Port Orford and includes approximately 3800 acres. About 30% of the area within the urban growth boundary has been set aside for uses other than urban or is impractical for construction due to topography. The remaining area is designed to meet the need to accommodate long term urban population growth. The urban growth boundary is designed to provide sufficient land to insure choices in the market place for various uses for a future population of 12-15 people.

It is anticipated that urban development outside the existing city limits will incorporate a combination of service providers, including city annexation and the formation of special water and sewer assessment districts. In the case of the formation of new service districts it is anticipated that high construction costs will generally require a large tax base spread over broad areas in order to economically provide services.

The agricultural lands in the vicinity of Port Orford have been excluded from the urban growth area. Buffers between urbanizable lands and agricultural lands are provided by designation of forest and open space, rural residential, and by the character of activity on adjacent lands designated as agricultural.



City of Port Orford

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