IN THE BOARD OF COUNTY COMMISSIONERS

FOR CLATSOP COUNTY, OREGON

JUL 23 1980

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ORDINANCE NO. 80-7.

(AN ORDINANCE AMENDING THE TEXT AND MAP OF (THE CLATSOP COUNTY COMPREHENSIVE PLAN, AS (ADOPTED BY THE BOARD OF COMMISSIONERS AND (AS AMENDED, BY INCLUSION OF ELEMENTS OF (THE COUNTY COMPREHENSIVE PLAN AND ZONING (MAPS FOR THE LEWIS AND CLARK, YOUNGS, (WALLOOSKEE RIVER VALLEYS COMMUNITY AREA, (THE ELSIE-JEWELL COMMUNITY AREA, THE (SEASIDE RURAL COMMUNITY AREA; BACKGROUND ((INVENTORY) REPORTS; COUNTY-WIDE ELEMENTS; (RESCINDING INCONSISTENT PROVISIONS, AND (DECLARING AN EMERGENCY.

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

SECTION 1. SHORT TITLE.

This ordinance shall be known as the Background Reports, County-wide Elements and Three Community Areas Plan.

SECTION 2.

The Board of County Commissioners of Clatsop County, Oregon, recognizes that the Clatsop County Comprehensive Plan, as adopted by the Board of Commissioners by Resolution and Order No. 74-11-4, needs periodic revision and amendment. In the interests of the health, safety and welfare of Clatsop County citizens and in accordance with Clatsop County Planning Commission recommendations, the Board of Commissioners hereby acknowledges the necessity of amending the Plan to provide for Plan and Zoning Maps encompassing the Lewis & Clark, Youngs, Wallooskee River Valleys area, the Seaside Rural area, and the Elsie-Jewell area and to provide for the Background (Inventory) Reports and County-wide Elements of the Comprehensive Plan.

The Plans, Zoning Map, Background Reports and County-wide Elements as included herein shall be elements of the Clatsop County Comprehensive Plan, and the Board of Commissioners finds that the Plan complies with the following Oregon Statewide

Planning Goals: 1 through 14, and 16 through 18.

The Board of County Commissioners further determines and takes notice that the adoption procedure for this ordinance amending the Comprehensive Plan particularly complies with Oregon Statewide Planning Goal 1, Citizen Involvement. The County Planning Commission has sought review and comment from Citizen Advisory Committees for the Lewis & Clark, Youngs, Wallooskee River Valleys, Seaside Rural, Elsie-Jewell, Clatsop Plains, Seaside-Gearhart, Southwest Coastal and Northeast planning areas and has conducted the public hearings process pursuant to the requirements of ORS 215.060. Planning Commission hearings were held on the Plans and Zoning Maps for the Lewis & Clark, Youngs and Wallooskee River Valleys, Seaside Rural and Elsie-Jewell Community Plans on March 6, 20, 27, 1980, April 8, 1980 and adopted on April 29, 1980. Planning Commission hearings were held on the First Set of the Background (Inventory) Reports and County-wide Elements on February 19, 1980, adopted March 11, 1980 and on the Second Set of the Background (Inventory) Reports and County-wide Elements on April 15, 1980, adopted on May 13, 1980. The Board of Commissioners received and considered the Planning Commission recommendations on these proposed amendments. The Board of Commissioners held hearing pursuant to the law on the Lewis & Clark, Youngs and Wallooskee River Valleys, Seaside Rural and Elsie-Jewell Community Plans on May 15, 19, 21 and June 5, 1980, and on the First and Second Set of Background (Inventory) Reports and County-wide Elements on June 12, and June 26, 1980.

SECTION 3. CONFORMITY WITH THE LAW.

This ordinance shall neither be a substitute for nor eliminate the necessity to conform with any and all laws or rules of the State of Oregon or its agencies or any ordinance, rule or regulation of Clatsop County.

SECTION 4. INCONSISTENT PROVISIONS.

This ordinance shall supersede, control and repeal any inconsistent provision of the Clatsop County Comprehensive Plan, as amended, the Clatsop County Zoning Ordinance, as amended, and any other ordinance or regulation made by Clatsop County.

SECTION 5. SEPARABILITY.

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

SECTION 6. EFFECTIVE DATE.

This ordinance shall be in full force and effect immediately upon the date set forth in the emergency clause herein.

SECTION 7. EMERGENCY CLAUSE.

In order to implement the Clatsop County Planning Commission recommendations and the findings of this Board with the greatest expedience and in recognition of the benefits to be derived by the adoption of this Comprehensive Plan Element, this ordinance shall become effective immediately upon its passage; an emergency is declared to exist.

SECTION 8. ADOPTION CLAUSE.

1. The Lewis and Clark, Youngs, and Wallooskee River Valleys Community Plan and Zoning Maps attached hereto as EXHIBIT "A" and as modified by EXHIBIT "B", both of which are by this reference incorporated herein, are adopted in total as an element of the Clatsop County Comprehensive Plan.

2. The Seaside Rural Community Plan and Zoning Maps attached hereto as

EXHIBIT "C" and as modified by EXHIBIT "D", both of which are by this reference incorporated herein, are adopted in total as an element of the Clatsop County Comprehensive Plan.

3. The Elsie-Jewell Community Plan and Zoning Maps attached hereto as EXHIBIT "E" and modified as EXHIBIT "F", both of which are by this reference incorporated herein, are adopted in total as an element of the Clatsop County Comprehensive Plan.

4. The Goal 1 Citizen Involvement, Goal 3 Agricultural Lands, Goal 5 Rock and Mineral Resources, Goal 6 Air, Water and Land Quality, Goal 7 Natural Hazards, Goal 8 Recreation, Goal 9 Economy, Goal 10 Population and Housing, Goal 11 Public Facilities and Services, Goal 13 Energy Conservation County-wide Elements attached hereto as EXHIBIT "G" and by this reference incorporated herein are adopted in total as elements of the Clatsop County Comprehensive Plan.

5. The Clatsop County Comprehensive Plan, portions of which are being adopted by this ordinance, is based upon certain Background Inventory and technical information. The Background Reports do not contain any Goals, Policies or objectives upon which a decision will be made. Due to the fact that these Background (Inventory) Reports will be subject to modification in the future as new information becomes available, they are not part of this ordinance but are to be referred to as the information upon which the Clatsop County Comprehensive Plan is based. The following Background (Inventory) Reports shall be available for public inspection in the Clatsop County Department of Planning and Development:

Goal 3 Agricultural Lands

Goal 5 Rock and Mineral Resources

Goal 6 Air, Water and Land Quality

Goal 7 Natural Hazards

Goal 8 Recreation

Goal 9 Economy

Goal 10 Population and Housing

Goal 11 Public Facilities and Services

Goal 13 Energy Conservation

Each Report shall be signed by the Chairman of the Board of County Commissioners and all future modifications shall be adopted by Resolution and noted in each report.

6. The Introduction Section of the Clatsop Plains Community Plan shall be used as the introduction to all Community Plans of the Clatsop County Comprehensive Plan including the Southwest Coastal Community Plan, Lower River and Islands Plan, Northeast Community Plan, and the three noted in Sections 1, 2, and 3 above.

ENACTED this 23rd day of July, 1980.

THE BOARD OF COUNTY COMMISSIONERS
FOR CLATSOP COUNTY, OREGON

By Orvo A. Nikula
Orvo A. Nikula, Chairman

By Don O. Corkill
Don O. Corkill, Commissioner

By Bob Westerberg
Bob Westerberg, Commissioners

VOTE: Aye: Westerberg, Nikula, Corkill

Nay: none

Abstention: none

ATTEST: Curtis Schneider
Recording Secretary

Date: July 23, 1980

EXHIBIT "A"

CLATSOP COUNTY COMPREHENSIVE PLAN

Lewis & Clark, Youngs, and Wallooskee River Valleys Community Plan

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

Prepared jointly by:

Lewis & Clark, Youngs, and Wallooskee River Valleys Citizen Advisory Committee
Clatsop County Department of Planning and Development

The preparation of this report was financially aided through grants from the Land Conservation and Development Commission with funds obtained from the National Oceanic and Atmospheric Administration, and appropriated for Section 305 and 306 of the Coastal Zone Management Act of 1972.

ACKNOWLEDGEMENT

The Lewis & Clark/Olney Citizen Advisory Committee had devoted numerous hours over the last several years to the preparation and review of this plan. In addition to the Citizen Advisory Committee (CAC) members, there were numerous interested persons who attended CAC meetings.

Lewis & Clark, Youngs, and Wallooskee River Valleys Citizen Advisory Committee Members

Jack Burkhart, Chairman
Eugene Tuveng
Arne Jylha
Bill King
Bob Tindall
Diana McAlpin
Mike Flannigan
Darrell Davis
John Reith

Past Members

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Clatsop County Department of Planning and Development

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
LANDSCAPE UNITS	2
Shorelands	3
Estuary	4
Alluvial Lowlands	11
Alluvial Terraces	11
Coast Range Foothills	11
Basaltic Highlands	12
NATURAL RESOURCES	14
Forest Land	14
Agricultural Land	14
Water Resource	15
Fish and Wildlife	15
CRITICAL HAZARD AREAS	17
Flood Hazard	17
Shoreline Erosion	17
High Ground Water/Compressible Soils	17
Mass Movement	17
CULTURAL	19
Housing	19
Public Facilities and Services	20
Transportation	21
Open Space, Recreation, and Preservation	21
COMMUNITY DEVELOPMENT	26
Development	26
Rural	28
Conservation	29
Natural	30
APPENDICES	34
A. Physical Characterisitcs of Landscape Units	

INDEX TO MAPS AND FIGURES

		Page
Map 1.	Landscape Units	13
Map 2.	Hazards	18
Map 3.	Open Space, Recreation and Preservation	25
Map 4.	Comprehensive Plan	32
Map 5.	Zoning Map	33
Figure 1.	Profiles of the Landscape Units	2

INTRODUCTION

The Lewis and Clark, Youngs and Wallooskee River Valleys are characterized by extensive areas of diked estuarine land used for grazing, with residential development found generally on the terraces above the low tideland/flood areas. Up the various river valleys are lands ideally suited for timber production. Residential development has occurred along the various County roads with extensive development in the Miles Crossing/ Jeffers Garden area. The Cities of Astoria and Warrenton have historically provided the economic base for employment in the area.

The Clatsop County Comprehensive Plan for the Lewis & Clark, Youngs and Wallooskee River Valleys is in two parts: a County-wide Element and a Community Plan. The County-wide Element deals with state goals and programs of County-wide concerns such as the economy. The Community Plan is an amplification of many of the County-wide policies which address specific concerns of the area. The Community Plan also addresses items not covered in the County-wide Element because of an items uniqueness to this particular area.

Taken together, the Plans provide a guide for development - whether it be residential, commercial, industrial or recreational. The intent of the Plan is NOT to stop or limit "rural" growth but rather to direct growth into appripriate locations while preserving the quality of life in the area. In looking at appropriate locations for various types of development, consideration was given to the preservation of resource lands (agricultural or forest lands), level of public facilities and services available, the land's carrying capacity, and the different needs for various uses within the planning area.

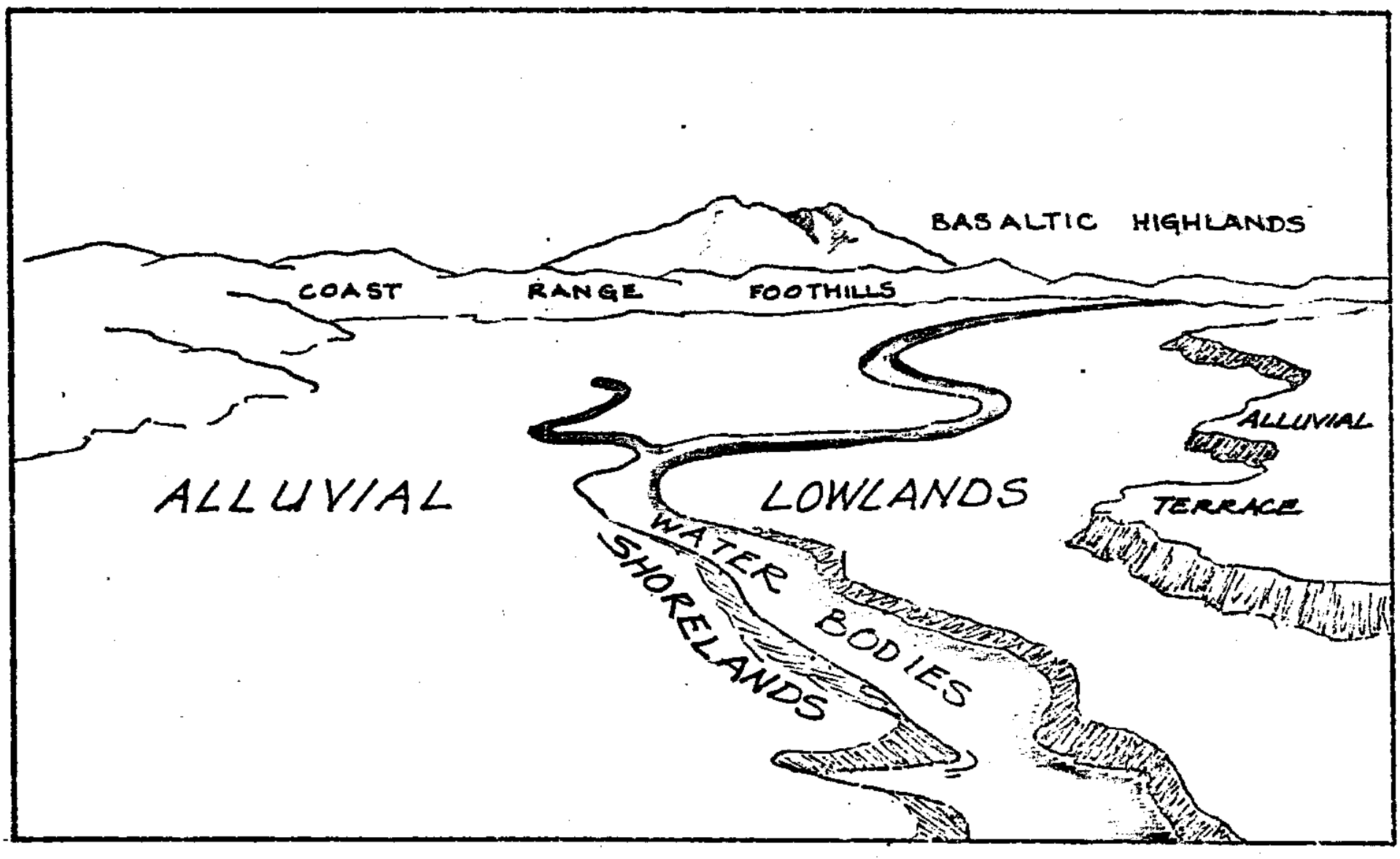
LANDSCAPE UNITS

Introduction

The basic idea of the landscape unit is that it reflects a set of characteristics which, taken together, constitutes a natural process. The soils, hydrology, wildlife, vegetation, and land forms are interrelated as a functional unit. The landscape units provide a framework for development that is in part based on the land's capability. Each piece of land is in a landscape unit. The landscape units which occur in the Lewis & Clark, Youngs and Wallooskee River Valley planning area are, Shorelands, Alluvial Lowlands, Alluvial Terraces, Coastal Range Foothills, and Basaltic Highlands. Figure 1. demonstrates the profiles of the landscape units, while Map 1. shows their locations in the planning area.

Figure 1.

Profiles of the Landscape Units



Further discussion on the landscape units capacities and limitations can be found in the Lewis & Clark/Youngs River and Walluski River Valleys Environmental Plan (1973). The Environmental Plan contains four elements: landscape units, critical hazard areas, an open space program, and priority resources areas. Each element performs a specific purpose in incorporating environmental data and policies into the Community Plan Element. The policies in the environmental plan are the basis and background for the policies in this section and other sections of the plan.

In order to adapt these landscape units for use as a management tool and to relate them to the Statewide Goals; the landscape units, Shorelands and Water Bodies, Estuary Wetlands and Freshwater Wetlands landscape unit have been combined together as Shorelands.

Shorelands

Rivers, estuarine areas and their shorelands are contained within this landscape unit. The Lewis & Clark, Youngs, Wallooskee, Little Wallooskee, and the Klaskanine Rivers constitute the major bodies of water, and the major focal points of the planning area. Added to these major streams are innumerable smaller tributaries and sloughs.

Shorelands Policies

1. The shoreline setback for structures shall be 50 feet as measured from the lakes and streams (aquatic-shoreland boundary).

2. Planned developments and subdivisions adjacent to shorelands shall be encouraged to provide open space along the shoreland.

3. Both public and private bridges crossing over public water bodies shall be constructed to standards that insure maximum protection to the persons utilizing the structure and to the water system it crosses. To the maximum extent possible, minimum fill and/or removal shall take place during construction of the bridge.

4. Rural Coastal Shorelands in the Lewis & Clark, Youngs, and Wallooskee River Valley Community Plan shall be used only for the following:

   a. Water-dependent industrial uses and water related uses where appropriate findings have been made by the County under the Coastal Shorelands criteria

   b. Uses in the aquatic areas shall follow the guidelines developed by the Columbia River Estuary Study Taskforce (CREST).

Estuary

Estuaries are the tidal mouths of the coastal rivers. They are the result of a rising of the level of the sea and the subsequent filling of the lower portions of the coastal valley by sediments. Large amounts of clay and silt deposits are carried into the estuary and mixed with sand.

The Columbia River Estuary Study Taskforce (CREST), a bi-state organization of the local governments of Oregon and Washington, completed a regional management program for the Columbia River estuary in 1979. The Youngs Bay-Astoria Management Unit Plan was one of five planning area land and water use plans developed during the planning program. The Plan was based on an evaluation of many factors including potential shoreland hazards, biological productivity areas, areas needed for water-oriented development, fisheries protection, and scenic resources. Within the Youngs Bay-Astoria Management Unit Plan are three subareas which are part of the Lewis & Clark, Youngs, and Wallooskee River Valleys planning area.

Coastal shorelands were also identified in the CREST planning process. The extent of the Coastal Shorelands boundary included:

(1) Lands which limit, control, or are directly affected by the hydraulic action of the coastal water body, including floodways;

(2) Adjacent areas of geologic instability;

(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 spawing areas;

(4) Areas of significant shoreland and wetland biological habitats;

(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, 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.

Although the CREST program identified coastal shorelands to extend from the upper edge of aquatic areas to the upper boundary between tideland soils and upland soils or 200 feet landward whichever was greater, the County has removed all diked shorelands from the coastal shorelands boundary as they do not meet the requirements set out in the State Coastal Shorelands Goal (#17).

The classification system used in the CREST plan includes the NATURAL, CONSERVATION, RURAL and DEVELOPMENT designations which corresponds to the Comprehensive Plan designations used in the Community Development Section. The classifications for the estuary are further referenced according to the physical environment shown below.

NATURAL AQUATIC areas are managed for resource protection, preservation and restoration, with severe restrictions on the intensity and types of uses. Natural aquatic areas may include tidal marshes and mud-sand flats that, because of a combination of factors such as size, biological productivity and habitat value, play a vital role in the functioning of the estuarine ecosystem. Natural aquatic areas will be designated Natural Aquatic on the County Comprehensive Plan and placed in a Natural Aquatic zone.

CONSERVATION AQUATIC areas are managed for low to moderate intensities of use, with emphasis on maintaining the flow of aquatic resource and recreational benefits. Minor alterations may be permitted in conjunction with approved uses. Conservation aquatic areas may include open water portions of the estuary and intertidal marshes and mud-sand flats of lesser biological significance than those in the Natural category. Conservation aquatic areas will be designated Conservation Aquatic on the County Comprehensive Plan and placed in a Conservation Aquatic zone.

DEVELOPMENT AQUATIC areas are managed for navigation and other water dependent uses, consistent with the need to minimize damage to the estuarine ecosystem. Some water related and other uses may be permitted. Development aquatic areas may include: areas suitable for deep or shallow draft navigation, including shipping and access channels or turning basins; dredged material disposal sites and mining or mineral extraction areas; and areas adjacent to developed or developable shorelines which may need to be altered to provide navigational access or create new land areas for water dependent uses. Development aquatic areas will be designated Development Aquatic in the County Comprehensive Plan and placed in a Development Aquatic zone.

WATER DEPENDENT DEVELOPMENT SHORELANDS are managed for water dependent uses, with water related and other uses allowed only upon satisfaction of standards which require a showing of need, direct association with water dependent uses, and provision of public access to the waterfront. Water dependent development shorelands includes areas of high potential for water dependent recreational, commercial, or industrial development, by virture of their proximity to deep or shallow draft navigation channels, existence of sufficient back-up land for heavy industrial or port uses, potential for aquaculture, or potential for recreation and scenic enjoyment of the waterfront. Water dependent development shoreland areas will be designated Especially Suited for Water Dependent Development (ESWD) in the County's Comprehensive Plan and placed in an ESWD zone.

To apply the classification designations to uses of the land and water, a Permitted Use Matrix was prepared (Figure 2.). Development standards for these land and water uses were also prepared and are incorporated into the County Zoning.

Resource protection versus maximizing development potential are the overriding issue through the Youngs Bay-Astoria planning area. General policies that pertain to the entire planning area are listed below. More specific policies are contained in the subarea descriptions which follow.

Youngs Bay-Astoria Plan Area General Policies

1. Log Storage.

   Log storage in the Lewis and Clark and Youngs Rivers should continue to be allowed at all existing sites, even those instances where it is a non-conforming use in a NATURAL area. However, no new log storage sites should be allowed in NATURAL areas or in wetlands, where the logs would rest on the bottom at low tide.

2. Transportation Routes.

   All existing railroads and highways are considered DEVELOPMENT for the purpose of maintenance, repair and possible expansion, regardless of the adjacent aquatic or shoreland designation. Furthermore, new transportation routes which may be required through NATURAL or CONSERVATION areas are allowed, but only on the condition that the most environmentally sound construction methods are used and impacts of construction are minimized.

3. Recreation and Public Access.

   Public waterfront access for recreation should be improved throughout the Youngs Bay-Astoria area. Particular emphasis should be given to small waterfront parks in urbanized areas to serve local residents and day-use needs. The Astoria People Place system concept of small parks, fishing piers and viewpoints, connected by a waterfront walkway is strongly supported. Improvement of waterfront access and/or park construction is recommended: at Tongue Point; in Astoria at the new Maritime Museum, at 14th Street, between 9th and 10th Streets, at the foot of the Astoria-Megler Bridge, and at the Port docks; at small boat launches in the Youngs and Lewis and Clark Rivers; and on the west bank of the Skipanon, just south of the new Skipanon River Bridge, at Tansy Point, and adjacent to the Hammond Mooring Basin.

Youngs Bay

Youngs Bay is one of the more biologically productive parts of the estuary. This subarea extends from the old U.S. Highway 101 bridge over the Youngs River and the Lewis & Clark River to the 30 foot contour in the Columbia River. It includes large fringing marshes and tide flats.

Because of numerous development proposals, Youngs Bay is the most intensively studied bay of the estuary. The area has been considerably altered by human activity. The most important physical alterations have been timber cutting in tributary watersheds with resulting sedimentation, the diking of tidal marshes and spruce swamps, the filling of shallow areas, and the alteration of the hydraulics of the bay by channels, fills and causeways. The strongest effects on the bay's hydraulics have been exerted by the Skipanon peninsulas, the fills at Smith Point (Port of Astoria piers) and the two causeways. The new Highway 101 causeway in particular has caused a marked reduction in currents and wave action in the interior of Youngs Bay. There has been extensive shoaling.

It is much harder to evaluate biological changes in Youngs Bay. There has been a very large loss of tidal marsh and open water habitats and perhaps a gain in mud/sand flats. There has been a very large loss of spawning habitat in tributary streams, runs of fall chinook and steelhead are greatly reduced, and the chum runs are virtually extinct. It is not possible to determine changes in the nutrient supply to the bay or changes in benthic populations or planktonic productivity.

The mud and sand flats of Youngs Bay are among the most productive areas of the estuary for benthic (bottom dwelling) animals. Salmon and trout are the most important commercial fish species found in Youngs Bay.

Dredging an entrance channel into the Lewis and Clark River was authorized, but was not economically feasible. This project and maintenance dredging of the authorized channel in Youngs River will probably be suggested in the future. The use of the bay and tributaries for fish propagation will probably also increase.

Major limitations on development surrounding the bay include the impacts of each development, the cumulative effects of all developments, and limited land transportation west of Youngs Bay. Navigational access to the Youngs Bay shorelines is limited by fringing tidal marshes, shallow water and the high shoaling rate. Commercial use of the bay in the near future will probably be limited to log transport and fishing. Recreational boating and fishing will probably increase.

Lewis and Clark River

This subarea includes the aquatic and shoreland areas above U.S. Highway 101 (alternate) bridge to the extent of tideland soils.

Important tidal marshes remain along the west bank near the mouth and adjacent to Fort Clatsop National Monument. Numerous small and fringing marshes remain. Dikes, freshwater marshes have not been fully inventoried. Bird use of the river and marshes for feeding and nesting is moderate, though not as high as in Cathlamet Bay and other areas further upriver. The major human uses of the waters are fishing, log sorting, storage and transport, and recreational boating.

Significant issues in this subarea, as in the Youngs River subarea, were water related issues such as the preservation of diked freshwater wetlands, log storage in wetland areas where logs may go aground at low water, and maintenance of stream flows and water quality during summer minimum flow periods.

This subarea, as in the Youngs River subarea, borders hundreds of acres of farmland and many residences which are dependent upon an extensive diking and drainage system for protection from flooding. In some instances the only economically feasible source of material for dike maintenance is the river bottom sediments outside the dike. Land behind the dikes are drained by a system of tide boxes. For the tide boxes to function effectively, the area outside the dike in front of the tide boxes must remain low enough so that water will move through the tide boxes and drain into the river at low tide. Becuase of substantial shoaling in some areas, limited dredging of tide box drainage channels is necessary.

The County has taken an exception to a portion of the Estuarine Resources Goal (#16) to allow dredging for certain non-water dependent uses. The exception is needed to allow limited dredging as a source of material for dike maintenance when other sources are not economically feasible and the area in front of the tide boxes or gates has shoaled preventing proper land drainage.

Youngs River

This subarea includes the aquatic and shoreland areas of Youngs River above the U.S. Highway 101 (alternate) bridge to the extent of the tideland soils. The largest remaining tidal marshes are Fry and Grant Islands and Cooperage Slough. Most areas that were historically marsh have been diked. Numerous small and fringing marshes remain. Diked, freshwater marshes have not been fully inventoried. Bird use of the river and marshes for feeding and nesting is moderate, though not at high as in Cathlamet Bay and other areas upriver. The major human uses of water areas are fishing, log storage and transport, and recreational boating.

A boat construction facility is located immediately adjacent to the tide box at the mouth of Cook Slough. This facility was built and utilized for the construction of wooden fishing vessels in the 1930's and 1940's. Following a period of inactivity, steel-hulled fishing vessels are presently being built at this location. Extensive shoaling in this area has substantially reduced water depths in the area and launching the vessels is extremely difficult. Vessels can be only partially completed (bare full and house) before launching in order that their draft is minimized. Even under these circumstances, all launching activities must occur at high tide.

The dredging of a "pothole" in the area would allow vessels to be launched in a safe manner and would permit the vessels to be moored at this location while the final outfitting takes place. Movement out to the main river channel could then occur at high tide. Continued shoaling of this area could result in shallow water depths which would not allow the movement of these vessels (drafts of approximately 9 feet) out to the river channel even on the highest tides. Under those circumstances a plan amendment to permit limited dredging for ingress and egress to the area would be appropriate.

The Youngs River subarea contains significant natural values which should be protected. Except for extensive diking, people have changed this environment to a lesser extent than other portions of the estuary. There is a substantial local and state investment in fisheries enhancement. The state operates a fish hatchery on the Klaskanine River and the Clatsop Economic Development Committee operates fish-rearing ponds near Tucker Creek. Expansion of these fish-rearing efforts is being planned.

Dredged Material Disposal

Dredged material disposal is suggested for dike maintenance in the areas at the mouth of the Wallooskee River as well as dikes along the Youngs River in the Miles Crossing area. There is a site associated with Crown Zellerbach's log sorting operation and possible dike sites.

Restoration and Resource Enchancement

A fish ladder has been proposed for the Youngs River Falls. Such a facility would open up the upper Youngs River Basin to anadromous fishes. Construction of additional fish-rearing ponds to supplement existing natural and hatchery production has been proposed for unspecified locations along the Lewis and Clark and Youngs Rivers to enhance fishery resources. The chum salmon populations have been severely depleted; chum, coho and chinook salmon runs could all be expanded. An earth-filled dam on the North Fork of the Klaskanine River would provide water storage to supplement river flow during low discharge periods. This would benefit the state hatchery on the river and provide more water for natural runs as well.

Eleven potential marsh mitigation sites have been identified in the Youngs River subarea. These areas are presently diked and restoration would involve removing dikes or opening tidegates to allow the areas to revert to tidal marshes.

The shoal area south of the Youngs Bay Bridge causeway has been proposed as a restoration site. Restoration would consist of drainage culverts through the causeway to promote better tidal circulation and thus decrease the sedimentation rate in that part of Youngs Bay. There are five potential marsh mitigation sites located along the Lewis & Clark River; all of which are presently diked. Restoration would consist of dike breaching or removing tidegates.

Mitigation Needs

If the relocation of the dike adjacent to the airport is approved, it is likely that mitigation of adverse effects from that project will be required. The mitigation could involve restoration or creation of similiar habitat elsewhere in the estuary; sites in Youngs Bay, the Youngs River, or Lewis and Clark River should be considered.

Subarea Estuary Policies

1. Existing log storage areas should be inventoried to determine where logs rest on the bottom at low water. Use of these areas should be minimized and phased out as new sites adequate to meet industry needs are provided.

2. Dredging of shallow biologically productive areas adjacent to dikes as a source of material for dike maintenance shall be allowed upon a demonstration that:

   a. Alternative sources of material are not available or are not economically feasible;

   b. The dreding method selected will not leave pothiles where juvenile salmon and other fish might be stranded at low water; and

   c. Other disruption of tidal flats and tidal marshes is minimized.

3. Minor dredging shall be permitted in all areas where necessary to open drainage channels from tide boxes out to deeper water to assure efficient operation of the drainage system.

4. To protect present investments and the future potential of the fisheries resources of the Youngs River, new development in the area shall be carried out so as to preserve water quality, biological productivity, and other factors which contribute to fisheries production.

Alluvial Lowlands

Alluvial lowlands are plains occupying valley floors which result from the deposition of clay, silt, sand and gravel by water. Within the alluvial lowland landscape unit are fresh and salt water floodplains, protected floodplains, diked lands, fills and tidal surge plains.

There are large areas of alluvial lowlands in the river valleys of Lewis & Clark, Youngs, and Wallooskee, and Little Wallooskee Rivers which are predominantly being used for pasture lands. Generally the soils in this landscape unit are very poorly drained and are very acid. A variety of plants and abundant wildlife (especially big game) can be found within this landscape unit.

Alluvial Lowlands Policy

Low density activities such as agriculture shall be the preferred uses in the alluvial lowlands.

Alluvial Terrace

Alluvial terraces are relatively flat or gently sloping topographic surfaces which mark former valley floor levels. They are generally the more suitable landscape unit for development. Stream downcutting has caused the terraces to be higher than the present valley floor. Upstream alluvial terrace deposits consist of gravel and sand; downstream are deposits of sand, silt and clay.

Alluvial terraces are located throughout the Lewis & Clark Valley, along the Youngs River, its tributary the Klaskanine River, and the Walluski River. Highway 202 also lies mostly on an alluvial terrace. The soils of the alluvial terraces are moderately well drained, containing few restrictions on uses.

Alluvial Terraces Policy

Development on this landscape unit should be encouraged to take place nearest to presently urbanized areas, in order to utilize public services most efficiently.

Coast Range Foothills

Coast range foothills are low subsidiary hills on the edges of the coast range uplands. They range in elevation from 50 to 500 feet, are generally composed of sedimentary rock, and tend to have rounded tops. The area between the Clatsop Plains and the Lewis & Clark Valley; the area between the Lewis & Clark and Youngs River Valleys north of Lone Ridge; and the area north of the Walluski River Valley are all considered part of the coast range foothills landscape unit.

Coast Range Foothills Policy

The predominant land use of this landscape unit should be forestry and acreage homesites. This is due to the generally poor foundation characteristics and of severe septic tank limitations of soils in this landscape unit.

Basaltic Highlands

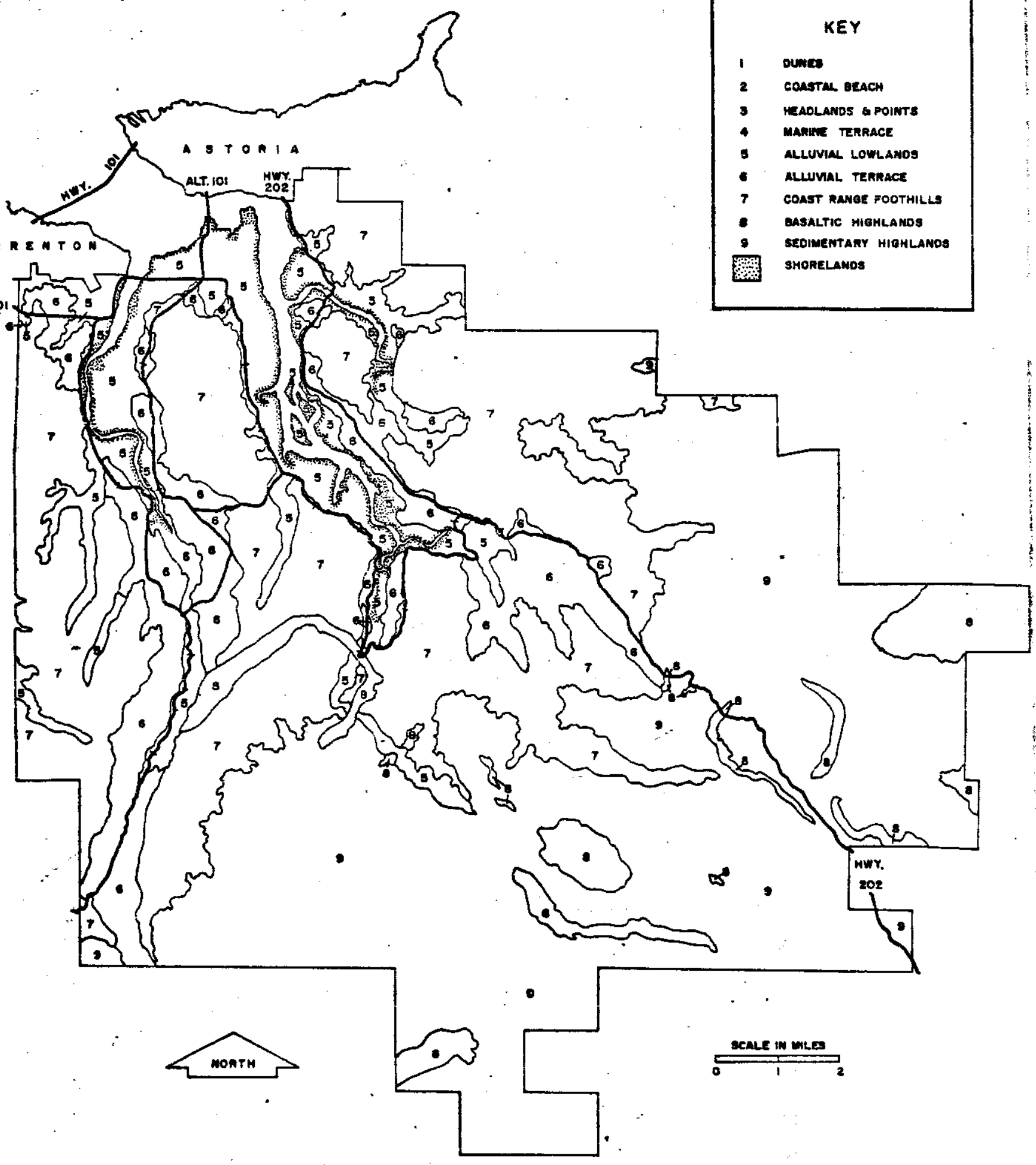
Generally, basaltic highlands are over 1,200 feet in elevation although outcrops of basalt are also exposed at lower elevations. Basaltic highlands are located in two regions of the planning area. A narrow basaltic intrusive (volcanic rock formed underground) rock outcropping forms a half moon shape between the Lewis & Clark River and Youngs River in the center of the planning area. Lone Ridge is located in this basaltic area and to the east it crosses Youngs River forming Youngs River Falls. In the southern section of the planning area, basaltic highlands lie to the east of the Lewis & Clark Valley and are surrounded by sedimentary rock.

Although basaltic highlands are generally free of landslides and other geologic hazards, their isolation, slope and elevation make them generally unsuitable for most developed activity. They are an important area of timber production in the County, as well as constituting a potential mineral resource area in terms of quarry rock. Many of these areas are accessible by primitive roads through very unstable geologic formations, and the roads themselves could experience considerable sliding and slumping if heavy use were permitted.

Basaltic Highlands Policy

Basaltic highlands should be designated as a resource unit, and uses other than woodlands, wildlife habitats, recreation, natural and mineral resources shall be discouraged.

GENERALIZED LANDSCAPE UNITS
LEWIS AND CLARK-OLNEY-WALLOOSKEE PLANNING AREA



Forest Land

Ownership of the forest land has changed to a considerable degree during the past three or four decades. Heavy cutting and the depression brought much of the privately owned lands into county hands during the 1930's because of foreclosures. According to the last timber inventory in 1963, 31 percent of Clatsop County lands are publicly owned while 48 percent are owned by the forest industry. The remaining 21 percent is owned by farmers and other small landowners.

The majority of the forest land in the planning area is in the ownership of Crown Zellerbach. Crown Zellerbach owns most of the timber land between the Clatsop Plains and the Lewis & Clark Valley. Crown also has vast holdings between the Lewis & Clark and the Youngs River. The Oregon State Forestry Department controls most of the timber land north of the Wallooskee River, while Crown Zellerbach has more acreage in the extreme eastern portion of the planning area. Forests cover 76.3 percent of 67,100 acres of the Youngs River drainage basin, and 79 percent or 34,600 acres of the Lewis and Clark River drainage basin is forest.

Agricultural Land

There are areas of agricultural lands in each of the three major river valleys in the planning area; the Lewis & Clark, the Youngs, and Wallooskee River Valleys. Along the Lewis & Clark River agricultural land is found on both sides of the upper portions of the river, while in the lower portions, most of the agricultural land is on the east side of the river.

Most of the agricultural land in the Youngs River Valley is on the extreme left margin of the valley, with some additional land along the upper reaches of the stream. In the Wallooskee Valley, agricultural lands are limited due to the extensive areas in forest lands. There are, however, some agricultural lands along the northern side of the river.

Water Resources

The streams within this planning area are an invaluable resource for the people in the region. These streams provide water for the residents of the area, provide water for irrigation and industry, as well as providing habitats for both fish and wildlife.

The three major streams in the planning area are the Lewis & Clark River, the Youngs River and the Wallooskee River. These streams fluctuate considerably between January and August. For example, the Lewis & Clark River has an average stream flow of 536 cubic feet per second (cfs) in January as compared to a flow of 15 cfs in August.

The existing water rights at the mouth of the Lewis & Clark River is 28.135 cfs. This means that during August, if all of the existing water rights on the Lewis & Clark River were exercised, there would be a deficit of -13.135 cfs. At the present time approximately one-half of all water right[illegible]

Fish and Wildlife

Sensitive areas for fish in the Lewis & Clark, Youngs and Wallooskee River Valleys are rivers, streams, and estuaries. Youngs River, Lewis & Clark and Klaskanine River have been identified as anadromous fish spawning streams. Anadromous fish hatch in upland freshwater streams, migrate to sea to spend a major part of their life, and return to the freshwater upland stream to spawn a new generation of fish. Important to these streams is the maintenance of water quality and low turbidity levels. Fish hatcheries to augment the natural production of anadromous fish are located on the Klaskanine River and near Tucker Creek. Fish habitats in the Columbia River estuary have been addressed in the Shoreland Landscape Unit section.

Headwater areas are sensitive drainages that fish generally do not habitat, but where man's activities can cause a direct impact on downstream water quality. The goal for these areas is to reduce erosion and turbidity. Headwater areas in the Lewis & Clark, Youngs and Wallooskee River Valleys are located in areas planned for forest uses where thereby limits development. Strict adherence to the Forest Practices Act will help to maintain water quality in headwater areas.

The sensitive areas for big game are those lands essential to the survival of deer and elk during the critical winter periods. Critical winter range has been identified in the Lewis & Clark, Youngs and Wallooskee River Valleys in the upper reaches of the Youngs and Klaskanine drainages. These areas have been designated for forest uses which will protect these areas and minimize the conflict between elk and deer and other land uses such as residential, commercial and agricultural uses. A large percent of the Lewis & Clark area is forest land which creates a good habitat for big game in the mixed stands of mature forests, brush lands and clear cuts. At times they concentrate in grassy portions of the lower lands where agricultural and residential uses have occurred. The Wildlife Commission has received complaints primarily in the Lewis & Clark Valley and to a lesser degree in the Youngs River Valley.

Grouse, mountain quail and pigeons are the most numerous and most hunted upland game birds in the County. While they are a product of the forested areas, not a great deal is known about managing habitat to increase populations. None of the birds or animals within this planning area are considered endangered species at the present time. The Lewis and Clark, Youngs and Wallooskee River Valley's Environmental Plan and the Fish and Wildlife Habitat Protection Plan for Clatsop County will provide additional background information if needed.

Policies

1. Elk management areas proposed within this planning area shall be located in upland areas and not in the lowland where farming or residential activities have occurred.

2. Clatsop County will cooperate with governmental agencies to conserve and protect identified fish and wildlife habitat.

3. Public and private land ownership preserves many habitat areas. There is limited regulatory power to assure that more living communities and animal species do not become rare and endangered in the future. Therefore new development shall be designed and constructed so as to:

   a. maintain wherever possible a natural, vegetative buffer strip along wetlands and streams,

   b. minimize the alteration of land and vegetation, and

   c. preserve open space, including agricultural and forest lands.

4. Habitats of all species indicated as endangered, threatened or vulnerable shall be preserved. Nesting sites of endangered bird species shall be protected and buffered from conflicting uses.

Additional policies concerned with NATURAL RESOURCES, such as forest lands can be found in the County-wide Element of the Comprehensive Plan.

CRITICAL HAZARD AREAS

The residents and property owners of the Lewis & Clark, Youngs and Walluski River Valleys are well aware of the rigors of their environment. It is commonly known that certain streams flood their banks at certain times of the year, that some rivers and creeks eat away their banks and rob the farmer of land, that one does not build a home or barn on a steep slope without special precautions. It is not by chance that most houses and other structures in the Lewis & Clark Valley are situated on the alluvial terrace, up above the flood prone areas, and where high water tables can cause no damage.

Flood Hazards

An extensive diking system in the Youngs and Lewis & Clark River areas generally protect the low-lying coastal floodplain from high tides and storm suges, though overtopping of low and/or poorly maintained dikes does occur on occasion. The most common flooding problem is caused during stormy periods, when storm surges and high tides close tidegates and cause runoff from heavy rains on the surrounding hills to be trapped behind the dikes.

The absence of cross dikes in many areas is also a matter of some concern. While breaking of a key dike is a remote possibility, such an occurence in the Miles Crossing area could result in flooding of a large area of land, with portions developed for residential, commercial and industrial use.

Shoreline Erosion

In most of the planning area, the natural shoreline has been altered by diking, riprapping or both. Shoreline erosion is a natural process, most evident where rivers bend. Diking of these areas means constant upkeep to pre ent eventual breaching. The upper portions of the Youngs River has the severest shoreline erosion problem, while large portions of the Lewis & Clark River and smaller portions of the North Fork and Klaskanine Rivers have moderate erosion problems.

High Ground Water/Compressible Soils

Areas of high ground water (land with the water table six feet or less below the surface during wet seasons) are found extensively throughout the Lewis & Clark, Youngs, and Wallooskee River Valleys. High ground water is usually associated with the alluvial lowland landscape unit, but can also be found on alluvial terrace formations with "perched" water tables.

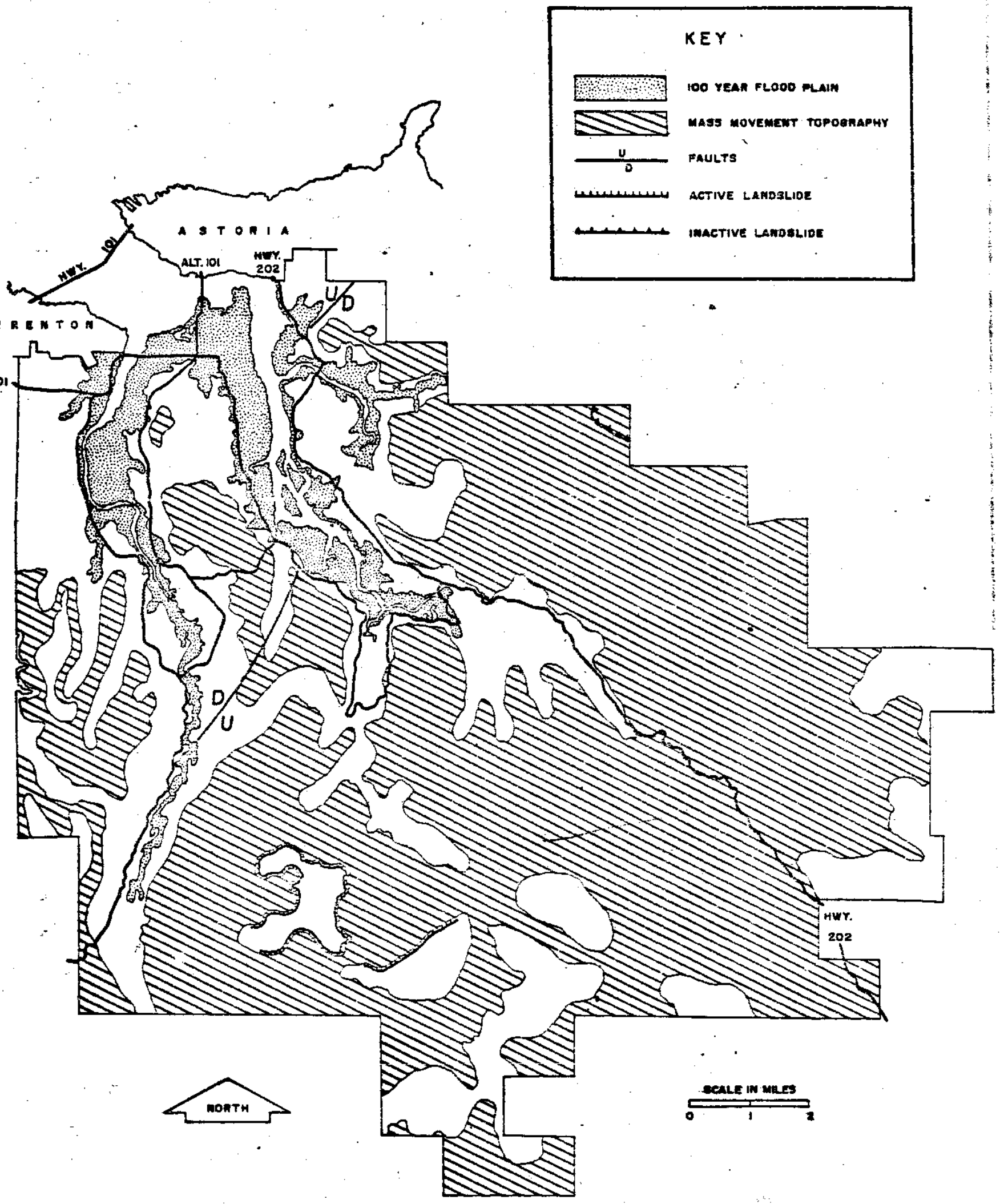
Mass Movement

Most of the land area in the Lewis & Clark and Youngs River basins is considered to be "landslide topography". This is land that does not show evidence of recent landslides, such as scarps or faces, but is rounded with irregular drainage patterns. The particular combination of geology, soils, slope and rainfall that occur here are the mains reasons for this hazard.

The various types of hazards within this planning area are shown on Map #2, while policies for hazards are contained in the County-wide Element of the Comprehensive Plan.

HAZARDS

LEWIS AND CLARK-OLNEY-WALLOOSKEE PLANNING AREA



CULTURAL

Housing

This planning area contains 24% of the County's unincorporated housing stock. Seventy percent of the Lewis and Clark housing stock is over 30 years old. Nearly half of the housing is valued at $15,000 or less. Perhaps the largest concentration of homes needing rehabilitation can be found in the Miles Crossing and Jeffers Garden area.

The buildable lands in the planning area are located primarily on the bench lands. The floodplain lands are likely to be subject to high water table and not adequate for septic tank installation.

Since 1960, this part of the County has averaged about 12% of all residential building [illegible] in the unincorporated County. The population increase has been [illegible]ve, .6% per year. The population was 2857 in 1970 and is estimated at 2984 as of 1978. The projection for the year 2000 is a population of 3801. Based upon this projection, approximately 323 new housing units will be needed in the Lewis and Clark/Olney/Wallooskee area by the year 2000.

HOUSING POLICIES

1. The location of a single wide mobile home shall be allowed only in those areas outside of existing developed areas, while a double-wide shall be allowed in all areas.

2. Mobile Home Parks shall be a conditional use within this planning area. They shall be encouraged to locate where community water and rural fire protection is available. A landscape plan shall be required and contain the following:

   (a) adequately buffered or screened with landscape planting around the periphery of the park,

   (b) clustering of units, and

   (c) permanent common open space shall be provided for usage within the mobile home park.

3. Subdivisions and Planned Developments shall be encouraged to locate where water and fire protection is available.

Public Facilities and Services

There is one sewer system in this planning area built for the Old Navy Hospital during World War II. The site is not longer being used for a hospital but the system is presently providing treatment for residential uses as well as in the pas providing treatment for manufacturing uses. The system could possibly serve a larger area depending upon the uses proposed for the Old Navy Hospital site.

There has been some interest expressed by the people in the Miles Crossing area for sewer service. Provisions have been made in Astoria's Comprehensive Plan to re-exame this area for inclusion within their Urban Growth Boundary in future updates. If in the future the City has justification to include this area in their Urban Growth Boundary, sewer service as well as other urban facilities and services would be made available.

The alluvial lowlands forming the floodplain have been used for raising and grazing for many years. Most of the existing dikes were constructed prior to the 1940s. By far the largest land use of diked lands is agriculture. There are 4 active diking districts and 2 inactive diking districts within this planning area. Many of the dikes are in serious states of disrepair and could possibly be breached during flood stages.

There are two community water systems within this planning area. The Youngs River/Lewis and Clark Water District obtains its water from Barney Creek and has about 695 connections. The system is very close to capacity and the Water Board is in the process of trying to make improvements to the system. Water for the Olney/Walluski Water Association is provided by the City of Astoria. The association provides water to about 124 homes with some capacity to meet future housing needs.

There are two school districts within the planning area: Olney and Lewis and Clark. Both districts have the capacity for some additional students within their districts.

Fire protection is provided by Lewis and Clark Rural Fire Protection District in the area between Youngs and Lewis and Clark Rivers. The area to the east of Youngs River has no rural fire protection. However, there has

been some expressed interest in creating a fire district in this area.

Public Facilities Recommended Action

The Lewis & Clark Water District should work with the County to insure there is adequate water to meet future needs.

Transportation

The automobile and truck are the predominant means of moving people and farm goods within this planning area. Logs are transported by truck and by log rafts. All four of the major roads (Highway 202, Youngs River Road, Lewis and Clark Road, and Fort Clatsop Road) follow along the river valleys. Although narrow and winding, none of these roads are at capacity. They are typical of [illegible] the County with little or no seasonal variation in usage.

Clatsop County Airport near Youngs Bay provides commercial air service facilities for small private plaing and the Coast Guard. The Airport Master Plan is being developed by the Port of Astoria. The Port is planning to develop a portion of the airport property as a light industrial park, despite constraints such as location in the floodplain and soils with low load-bearing capacity. The Port would like to fill much of the area with dredged material, but the distance from the sources is too great to make it economically feasible at the present time.

The Port of Astoria is also studying the possibility of installing an Instrument Landing System to allow use by U.S. Coast Guard Falcon jets. Regulations and standards of the Federal Aviation Administration may require moving one section of dike to create a sufficient clear zone. The County will be including within its Zoning Ordinance the recommended airspace zoning for the area southeast of the airport which is under the runway clear zone.

Open Space, Recreation and Preservation

Open space exists through a wide variety of different land uses as shown by the following categories:

Categories	Examples
Resource Lands	Forest Lands
Recreation	Sigfridson Farm County Park
Scenic/Buffer	Open space with a subdivision
Preservation	Fort Clatsop National Monument
	Park or Youngs River Falls

Map #3 shows the location of the various types of open space within the planning area. The most dominant form of open space is the extensive areas of farm and forest lands.

Recreation

Recreation facilities are provided at the Sigfridson Farm County Park located along the Klaskanine River, as well as facilities at the Olney and Lewis and Clark schools. The Lewis and Clark Road is presently part of the coastal bike route. The Lewis and Clark Road is narrown, hilly and has little or no shoulder, is used frequently by logging trucks. The vast majority of the touring cycles have been using U.S. Highway 101 along the coast rather than the Lewis and Clark Road.

The Plan recognizes the importance of providing public access to the vast rivers, tributaries, and sloughs. However, these access points should be limited because of the area's natural environment for wildlife, the desire to protect areas from overuse and potential damage, and in consideration of the rural nature of the area.

In examining the need for recreational vehicle parks within the planning area, it is felt they would be more appropriate in other parts of the County. The reason for this is the type of roads which exist in this planning area as well as the distance from tourist destinations.

In the past, the Boy Scouts have used a hiking trail going partly along logging roads from Fort Clatsop to the coastal beaches. This trail goes over Crown Zellerbach land and other private properties to the coast. Some further research should be done to determine if this should be designated as part of the county trail system.

Preservation

The Clatsop County Historical Advisory Committee, under the direction of the Clatsop County Board of Commissioners, prepared a map of various historical sites within the County in 1976. Within this planning area, the only actual historical site is the Fort Clatsop National Monument Park. The remaining historical sites represent the occurence of historical events, and may be appropriate for historical signing as funds become available.

Other aspects of preservation are the various Natural areas which play a crucial role in the rapidly changing landscape. Most important, perhaps, is that they serve as bench marks for assessing the extent of man's impact upon diverse land, lakes, rivers, estuary and coastal environments.

The Nature Conservancy through the Oregon Natural Heritage Program was commissioned by the State of Oregon to provide an inventory of potential natural areas, natural area needs, and programs to protect natural areas. Below is a list of potential natural areas iventoried within this planning area and how they are to be managed. Several of the areas identified need further research to better determine their location, boundaries and consequences of alternative decisions.

Site	
Box Canyon Upper Youngs River West of Lewis and Clark River Old Farm on Middle Fork of North Fork of the Klaskanine River	All four of these areas have been designated CONSERVATION Forest Lands. The conflict use occurs between Goal 4, Forest Lands and Goal 5, Open Space, Scenic and Historic Areas and Natural Resources in restricting forest uses and activities. Within Clatsop County the forestry industry generated more economic activity than all other sectors of the economy combined. The areas proposed by the Nature Conservancy would take out extensive areas of forest land out of timber production.
Lewis & Clark River Marsh Cooperage Slough Russian Point	There are no conflicting uses for these three areas. They are being designated NATURAL Aquatic.
Sigfridson Farm County Park	There are no conflicting uses and the park is being designated CONSERVATION to allow multiple uses and still preserve the natural diversity.
Youngs River Falls	Within the area described in the Nature Conservancy survey, the potential conflicting uses could be a fish ladder, logging, or a dam on the river above the falls. The area around the falls has been designated CONSERVATION and will be zoned for open space, while the remaining area is designated CONSERVATION Forest Lands.
Wallooskee River Site and Wetlands	The conflicting use is log storage in wetland areas where logs may go aground at low water and the dredging of shallow areas for fill material to maintain dikes. The area has been designated CONSERVATION Aquatic, as recommended in the CREST Plan.
Youngs Bay	No specific areas in Youngs Bay was surveyed by the Nature Conservancy. The County has designated the navigation channel as DEVELOPMENT Aquatic. The mud flats, tidal flats and fringing marshes are designated NATURAL Aquatic except for an 80 foot CONSERVATION Aquatic buffer adjacent to the dikes. The remaining areas are designated CONSERVATION Aquatic. Based upon information available, there are no conflicting uses for this area.

Open Space, Recreation and Preservation Policies

1. Recreational vehicle parks shall not be permitted within this planning area due to distance from tourist destinations and the condition of roads within the planning area.

2. The designated coastal bike trail should be changed from Lewis and Clark Road to U.S. Highway 101, due to the route going over a road which is narrow, hilly and has little or no shoulder.

3. The area around Youngs River Falls shall be set aside as open space. The County and City shall work together to insure the area will be preserved for future generations to enjoy.

4. Common open space should be encouraged along streams, or as a buffer between uses.

5. The use of identifying signs for historic and cultural landmarks shall be encouraged. The Clatsop County Historical Society shall be encouraged to assist in this project.

Recommended Action

Further research should be done on a possible hiking trail connecting Fort Clatsop National Park and the coastal beaches.

EXHIBIT "B"

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103
July 23, 1980

TO: BOARD OF COMMISSIONERS

FROM: DEPARTMENT OF PLANNING AND DEVELOPMENT

RE: TEXT CHANGES TO THE LEWIS & CLARK, YOUNGS AND WALLOOSKEE RIVER VALLEYS COMMUNITY PLAN

1.	Full Plan Text, Page 3, Policy 1:	~~"The shoreline setback for structures shall be 50 feet as measured from the lakes and streams (aquatic shore-land boundary)."~~
	Newspaper, Page 4, Shorelands Policy 1:	
2.	Full Plan Text, Page 3, Policy 3:	~~"Both public and private bridges crossing over public water bodies shall be constructed to standards that insure maximum protection to the persons utilizing the structure and to the water system it crosses. To the maximum extent possible, minimum fill and/or removal shall take place during construction of the bridge."~~
	Newspaper, Page 4, Shorelands Policy 3:	
3.	Full Plan Text, Page 5, Paragraph 6:	"To apply the classification designations to uses of the ~~land and water~~ shorelands and water, ~~a Permitted Use Matrix was prepared (Figure 2.) and~~ development standards for uses are incorporated in the County Zoning Ordinance. ~~Development standards for these land and water uses were also prepared and are incorporated into the County Zoning.~~"
	Newspaper does not contain this:	
4.	Full Plan Text, Page 6, Policy 3:	"Public waterfront access for recreation should be improved throughout the Youngs Bay-Astoria area. Particular emphasis should be given to small waterfront parks in urbanized areas to serve local residents and day-use needs. The Astoria People Place system concept of small parks, fishing piers and viewpoints, connected by a waterfront walkway is strongly supported. Improvements of waterfront access ~~and/or park construction~~ recommended in this planning area ~~at Tongue Point in Astoria at the new Maritime Museum, at 14th Street, between 9th and 10th Streets, at the foot of the Astoria Megler Bridge, and at the Port docks~~ are small boat launches in the Youngs and Lewis and Clark Rivers ~~and on the west bank of the Skipanon, Lewis & Clark Rivers and on the west bank of the Skipanon River Bridge at Tansy Point and adjacent to the Hammond Mooring Basin.~~"
	Youngs Bay-Astoria Plan Area General Policies:	

5. Full Plan Text, Page 8, Paragraph Five:

Newspaper does not contain this.

"The exception is needed to allow limited dredging as a source of material for dike maintenance~~.~~ (when other souces are not economically feasible) and for ~~limited dredging when~~ areas ~~in front of the tide boxes or gates has~~ which have shoaled preventing proper land drainage."

6. Full Plan Text, Page 16, Policy 1:

Newspaper, Page 7, Fish and Wildlife Policy:

~~"Elk management areas proposed within this planning area shall be located in upland areas and not in the lowland where farming or residential activities have occurred."~~

7. Full Plan Text, Page 16, Policy 3:

Newspaper, Page 7 Fish and Wildlife Policy 3:

"Public and private land ownership preserves habitat areas. There is limited regulatory power to assure that more living communities and animal species do not become rare and endangered in the future. Therefore new development ~~shall~~ should be designed and constructed so as to:"

8. Full Plan Text, Page 19, Policy 1:

Newspaper, Page 8, Housing Policy 1:

~~"The location of a single wide mobile home shall be allowed only in those areas outside of existing developed areas, while a double wide shall be allowed in all areas."~~

9. Full Plan Text, Page 19, Policy 2:

Newspaper, Page 8, Housing Policy 2:

~~"Mobile home parks shall be a conditional use within this planning area. They shall be encouraged to locate where community water and rural fire protection is available. A landscape plan shall be required and contain the following:~~

~~a. adequately buffered or screened with landscape planting around the periphery of the park;~~

~~b. clustering of units; and~~

~~c. permanent common open space shall be provided for usage within the mobile home park."~~

"Mobile home parks shall be a conditional use for those areas zoned Rural Residential-1 acre ~~and subject to the standards contained in the Zoning Ordinance.~~"

10. Full Plan Text, Page 20, Policy 3:

Newspaper, Page 8, Housing Policy 3:

~~"Subdivisions and planned developments shall be encouraged to locate where water and fire protection is available."~~

"Subdivisions and planned developments shall be located only where community water and fire protection is available."

11. Full Plan Text, Page 22, Third Paragraph:

Newspaper, Page 9, Recreation, Second Paragraph:

~~"In examining the need for recreational vehicle parks within the planning area, it is felt they would be more appropriate in other parts of the County. The reason for this is the type of roads which exist in this planning area as well as the distance from a tourist destination."~~

12. Full Plan Text, Page 24, Policy 1:

Newspaper, Page 9, Open Space, Recreation/ Preservation Policy 1:

~~"Recreational vehicle parks shall not be permitted within this planning area due to distance from tourist destinations and the conditions of roads within the planning area."~~

13. Full Plan Text, Page 26, Fourth Paragraph:

Newspaper, Page 9:

"The Astoria Urban Growth Boundary in this planning area encompasses the land south of the City along Youngs Bay. The City at one time had proposed the Miles Crossing/ Jeffers Garden area as part of their Urban Growth Boundary. ~~due to the need for flat land for future residential and industrial uses. This area was subsequently deleted due to objections of local residents.~~ The County has zoned the pasture lands north and west of Old U.S. 101 as Exclusive Farm Use. The Comprehensive Plan does not designate this area as agriculturel lands. The Exclusive Farm Use designation for this area is used as a holding zone due to septic tank limitations; until such time this area is needed for residential and/or industrial uses by the City of Astoria or developed as a Rural Service Area. The City and County both agree that at such time as development is proposed in the Miles Crossing/Jeffers Garden ~~this~~ area which would require urban services, the County should investigate the costs of extension of City services versus the formation of special districts."

14. Full Plan Text, Page 26, Fifth Paragraph:

Newspaper, Page 10:

"A Rural Service Area is an unincorporated area located some distance away from a city which contains residential densities similar to those found in cities. The size of a Rural Service Area is based upon many factors, some of which are population projections, capacity of public facilities, and proximity to a city. The Old Navy Hospital and adjoining property is designated a Rural Service Area due to the presence of sewers, water and roads. ~~Most of the property will be zoned for light industrial due to the limited areas with public facilities available for industrial uses.~~ The Old Navy Hospital will be zoned as Light Industrial with an overlay zone designation being Planned Development allowing for a mixture of uses. When developments are proposed for this area, provisions shall be made for buffers between existing residential uses and proposed uses. Depending upon the types of uses that locate within the Rural Service Area, there may be excess capacity in the sewer and other public facilities after meeting the needs of the uses in the present Rural Service Area boundary. In this case ~~this~~ the plan contains a

14. (Continued) ~~provision~~ provisions for expansion of the boundary to fully utilize the systems capacities."

15. Full Plan Text, Page 29, Policy 1: ~~"The minimum parcel size for building sites in RURAL areas shall be one acre.~~ RURAL residential lot sizes shall be based upon the public facilities available, compatible with surrounding uses, and land carrying capacity. Areas within a fire protection district and community water system should be zoned with a minimum lot size of one (1) acre, with the remaining RURAL areas zoned for a minimum lot size of two (2) acres. Smaller parcels legally existing at the time of adoption of this Plan are grandfathered, the specifics of which shall be handled in the Zoning Ordinance."

Newspaper, Page 11, Rural Policy 1:

--------denotes deletion _____denotes addition

EXHIBIT "D"

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103
July 23, 1980

TO: BOARD OF COMMISSIONERS

FROM: DEPARTMENT OF PLANNING AND DEVELOPMENT

RE: SEASIDE RURAL COMMUNITY PLAN TEXT CHANGES

1. Full Plan Text, Page 2, Policy 2:

   Newspaper, Page 4:

   "Residential development shall be at low densities (generally 2-~~10~~ 5 acres) because of the occurrence of high groundwater and seasonal stream flooding."

2. Full Plan Text, Page 6, Tillamook Head Policy:

   Newspaper, Page 7:

   "Tillamook Head shall be preserved as a unique coastal land formation. Uses other than forest management, wildlife habitat, low-intensity recreation, natural and mineral resources shall be discouraged. New and expanded mining operations on Tillamook Head which are in view of Highway 101 shall be screened with an appropriate buffer of trees."

3. Full Plan Text, Page 8, Paragraph 5:

   Newspaper, Page 7:

   "Because developable property in the Seaside Rural area lies on both sides of the Necanicum River, there may be proposals to provide access to the other side. The property owners adjacent to the River must be reasonably assured that river crossings will not wash-out causing downstream damage or obstruct flood flows. ~~This potential hazard is not addressed in the current floodplain ordinance.~~

   ~~Stream Flooding Policies~~

   ~~1. All future river or stream crossings shall be designed to provide adequate waterway openings and bridge clearance above flood flows.~~

   ~~2. Because new flood dike construction in floodplains can cause detrimental effects elsewhere along the river, County ordinances should strongly discourage this method of flood control.~~

   Policies relating to stream flooding are addressed in the County-wide Natural Hazards County-wide Element."

4. Full Plan Text, Page 9, Streambank Erosion Policy:

Newspaper, Page 7:

"Problems from natural erosion or the creation of situations where erosion would be increased due to actions on or adjacent to the river banks shall be avoided by:

~~a.--prescribing-a-setback-for-the-main-structure of-at-least-35-feet-in-areas-subject-to-erosion.~~

ba. carefully reviewing state and federal permits for shoreline stablilization to minimize impacts on adjacent land; ~~and~~

~~c.--requiring-a-25-foot-buffer-strip-of-riparian vegetation-along-all-Class-I-streams-(as defined-by-FPA)-except-in-areas-where-the Forest-Practices-Act-applies.~~"

5. Full Plan Text, Page 9 and 10, Mass Movement:

Newspaper Page 7:

~~"Policies-with-regard-to-mass-movement-areas-will-be applied-County-wide.--The-following-are-considered essential-for-the-maintenance-of-natural-features-in the-Seaside-Rural-area.~~

~~1.--The-minimum-lot-size-in-areas-susceptible-to-mass movement-will-be-1-dwelling-unit-per-5-acres-or larger.~~

~~2.--Development-in-areas-with-slopes-of-25%-or-greater shall-gnerally-have-the-natural-topography-intact.~~

~~3.--Where-hazardous-soils-relating-to-mass-movement are-known-to-exist,-a-site-investigation-will be-required-to-determine-stability-and-the-extent of-development-that-can-safely-occur.~~

Policies relating to mass movement are addressed in the County-wide Natural Hazards Element."

6. Full Plan Text, Page 12, Policy 1 and 2:

Newspaper Page 8:

~~"1.--A-buffer-of-200-feet-shall-be-designated-around-the upper-perimeter-of-the-Cannon-Beach-watershed-which would-allow-the-City-and-County-to-review-proposals for-logging-and-the-applicable-forest-practices. The-County-should-also-consider-the-protection-of other-private-and-community-watersheds.~~

~~This-issue-will-be-considered-on-a-County-wide-basis in-the-Forest-Lands-County-wide-Element.~~

1. The County shall ask the State Water Resources Department to study the watershed area of Cannon Beach. Upon completion of the study, the County will cooperate with the City to review the findings.

6.	(Continued)	2. Development or land uses <u>located on land not regulated by the FPA</u> that require channelization, excessive removal of streamside vegetation, alteration of stream banks, and filling of stream channels shall be restricted in order to maintain stream integrity."
7.	Full Plan Text, Page 13, Policy 3: Newspaper, Page 8:	"<u>3. The location of a single mobile home (minimum width - 12 feet, minimum floor area, 600 square feet) on an individual parcel of land shall be allowed in all areas of the Seaside Rural area, subject to standards contained in the Zoning Ordinance.</u>"
8.	Full Plan Text, Page 14 State Parks: Newspaper, Page 8-9:	"Ecola <u>and Elmer Feldenheimer Parks</u> - 1,299 acres, 2 miles north of Cannon Beach off U.S. 101 on the coast. Shore frontage of 6 miles with fine sea views. Sea lion and bird rookeries are located on off-shore rocks, and deer roam the park at will. Two beaches, trails, fishing, picnic grounds, propane gas stoves at Ecola Point. 68 picnic units."
9.	Full Plan Text, Page 14, Recreation, Second to last paragraph: Newspaper, Page 8-9:	"These facilities are considered adequate to satisfy future needs for parks and open space. Additional fishing and boat launch sites, however, could be developed along the area's rivers. Losses of traditional fishing spots have occurred in the past as the area has built-up. There is concern, however, that the rivers be ~~managed primarily for undeveloped natural areas~~ <u>left natural and undeveloped</u>."
10.	Full Plan Text, Page 15, Policy 6: Newspaper Page 9:	"~~RV parks and campgrounds are not considered appropriate uses of private or public land in the Seaside Rural area.~~"
11.	Full Plan Text, Page 16: Newspaper, Page 9:	"<u>Historic and Scenic Areas Policy: Uses of Tillamook Lighthouse shall enhance historic preservation, maintain the integrity of the coastal waters, require little or no public access and shall not substantially alter the external appearance of the site except to restore it to its historic appearance.</u>"
12.	Full Plan Text, Page 21, Policy 5: Newspapge Page 9, Policy 5:	"<u>5. To conserve and protect fish and wildlife habitat, new developments shall be designed and constructed so as to:</u> <u>a. maintain wherever possible a natural, vegetative buffer strip along wetlands and streams;</u> <u>b. minimize the alteration of land and vegetation; and</u> <u>c. preserve open space, including agricultural and forest lands."</u>

13. Full Plan Text, Page 22, Policy 1:

Newspapge Page 9:

~~"1.--Sunset-Highway-should-be-maintained-in-its-present state-with-a-minimum-widening.--Capacity-should-be increased-by-straightening-alignment-and-adding-a passing-lane-in-some-sections-if-no-new-rights-of-way are-required.--The-CAC-does-not-support-the-development of-the-highway-into-4-lanes."~~

14. Full Plan Text, Page 29, 30 & 31, Rural Policies:

Newspapge Page 15:

~~"1.--All-lands-which-are-not-currently-in-commercial-timber production,-parks,-in-the-Cannon-Beach-Urban-Growth Boundary,-or-NATURAL-are-designated-RURAL,-unless otherwise-requested-by-the-landowner.~~

2.1. Generally, the minimum parcel size for building sites shall be between ~~2-10~~ 2-5 acres, depending on location and historical development. From the Cannon Beach junction, parcel size increases as the distance to services (i.e. grocery store) increases.

~~3.--Clustered-housing-shall-be-discouraged-in-the-Seaside Rural-area.~~

~~4.--Minimum-front,-side,-and-rear-building-setbacks-shall be-as-follows:--100'---10-acre-zone~~
~~75'----5-acre-zone~~
~~50'----2-acre-zone,-unless-lot-size and-shape-prevents-the-strict-application-of-this standard.~~

~~5.--In-order-to-maintain-the-character-of-rural-residential development,-new-or-expanded-commercial-uses-shall:~~

~~a.--Make-the-most-effective-use-of-the-site's-topography and-existing-landscape-by-placing-buildings-and-improvements-in-such-a-manner-to-preserve-existing trees-and-natural-features.~~

~~b.--Minimize-visibility-of-large-parking-areas-when abutting-residential-zones.--Plants-should-be native-to-Western-Oregon.~~

~~c.--Provide-a-buffer-of-landscape-planting-area-when abutting-residential-zones.--Plants-should-be native-to-Western-Oregon.~~

~~d.--Minimize-highway-approaches-and-pavement-area wherever-possible-through-the-use-of-common driveways,-access-points,-and-other-means-such as-clustering-buildings-and-sharing-parking.~~

~~e.--Limit-sign-area-to-two-sides-of-one-8-square-foot sign-placed-no-higher-than-building.--Avoid-animation,-flashing-and-illuminated-or-reflective-signing and,-in-general,-be-designed-as-as-not-to-distriet from-the-surrounding-area.--Use-of-natural-materials is-encouraged.--When-lighting-is-necessary-it-should be-subdued-and-indirect.~~

f. Not advertise national brands of products or similar advertisements which are not promoting the primary item for sale on the premises.

5.2. When considering new commercial buildings or when existing commercial uses are considering expansion, the following standards shall be required:

a. Adequate off-street parking shall be provided.

b. A buffer of landscape planting area shall be provided when abutting residential zones. Plants should be native to Western Oregon.

c. Highway approaches should be minimized whenever possible through the use of common driveways, access points, and other means such as clustering buildings and shared parking.

d. Signs ~~should~~ shall be designed so as not to distract from the surrounding area. Use of natural materials is encouraged. When lighting is necessary it should shall be subdued and indirect. ~~Signs which advertise national brands or products which are not the primary item for sale on the premises shall be discouraged.~~

3. New commercial zones shall only be considered if of a neighborhood type or if concentrated in and adjacent to existing, well-established business areas, in order to increase the patronage and vitality of these areas and to avoid undue dispersal of new commercial activities.

~~6. Existing commercial establishments should also be required to meet the above standards at the time of expansion or a change of occupancy.~~

~~7. Expansion of the commercial zone should only occur to meet the needs of local residents.~~

8. 4. A liberalized approach to home occupations in rural residential areas is encouraged. Ordinance provisions should allow one or two additional non-family employees; should allow necessary alternations, and should allow operations either within the dwelling or an enclosed accessory building. Care shall be taken to avoid disturbance to neighboring property owners.

9.5. ~~Some small manufacturing operations~~ Cottage industries should be allowed ~~within commercial areas~~. Care should be taken to avoid disturbance to neighboring property owners through the establishment of minimum standards for floor or site area, number of employees, noise, odor and visibility restrictions.

~~10. Existing liquor establishments are considered adequate to meet local needs. New bars or taverns would only increase the problem with druken driving and the high incidence of accidents on the highway. Therefore, new commercial establishments which sell liquor for consumption on the premises are not encouraged.~~

~~11. Commercial gambling establishments shall not be allowed to locate in the Seaside Rural area."~~

15. Full Plan Text, Page 31, Conservation Objectives: "3. To protect life and property in hazardous areas."

Newspaper, Page 16:

16. Full Plan Text, Page 31, Conservation Policies: "1. Designated forested ~~areas~~ lands should be ~~preserved conserved~~ managed for forest uses.

Newspaper Page 16: 2. The overall densities for a building site in CONSERVATION forest areas shall be one (1) dwelling unit per 10 acres, one (1) dwelling unit per 20 acres, and one (1) dwelling unit per 38 acres. The designation of the various zones shall be determined upon:

a. existing lot sizes;
b. compatibility with forest uses;
c. proximity to existing developed lands, and
d. proximity to County and State roads and other public services."

17. Full Plan Text, Page 33, Natural Policy 2: ~~"2. Soapstone Lake and Homestead Meadows shall be designated NATURAL.~~

Newspaper Page 16: ~~In addition, the Seaside Rural Citizen Advisory Committee recommends that the Elsie Jewell Citizen Advisory Committee seriously consider the 160 acre parcel on Humbug Mountain currently owned by the State Parks Department as a NATURAL area.~~

~~2. Tillamook Rock shall be designated NATURAL.~~

2. The Elmer Feldenheimer forest preserve shall be designated NATURAL."

MAJOR REVISIONS - FINDINGS

Incorporated into the final plan for the Seaside Rural Community Plan are rationale and basic criteria for the land use designations established in the Plan. Due to the testimony received at the public hearings, comments from State and local agencies, and information provided by the Department of Planning and Development staff, some changes have occurred.

The major changes and findings for the changes are as follows:

Water Resource Policies

The protective buffer proposed for the upper perimeter of the City of Cannon Beach watershed has been deleted from the Plan because it includes land which the City does not own.

Recreation Policies

The prohibition of RV parks and campgrounds has been deleted from the Plan. The County feels there will be a public need in the future for these facilities to locate in the Seaside Rural area. Standards will be developed in the County Recreation Element and zoning ordinace to control access, traffic safety, garbage and sewage disposal.

Transportation Policies

The policy to restrict improvements to U.S. Highway 26 has been deleted. The County believes that the State Highway Division should be allowed to improve capacity of the highway if they feel there is a need.

RURAL Policies

Policies prohibiting clustering of houses and prescribing setbacks has been removed in order to be consistent with County-wide policies.

The Commercial zone has been reduced from approximately 75 acres to 12 acres to more accurately represent the commercial needs of the area.

Policies regarding gambling and liquor establishments have been removed because they are highly discriminatory and not completely in local control.

CONSERVATION Policies

The areas recommended by the CAC for a 10-acre rural have been changed to an Agriculture-Forestry zone to correspond with other Plans of the County and to comply with Goal 4.

NATURAL Policies

Soapstone Lake and Homestead Meadows are not considered NATURAL areas because they do not contain natural features. These sites were not listed in the inventory of potential NATURAL areas.

The Elmer Feldenheimer forest preserve is designated NATURAL because of existing deed restrictions and natural features which are to be maintained and protected.

----------denotes deletion _____denotes addition

EXHIBIT "C"

THE SEASIDE RURAL COMMUNITY PLAN

The Community Today and

Its Future Direction

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

Prepared jointly by:

Clatsop County Department of Planning and Development
Seaside Rural Citizen Advisory Committee

The preparation of this report was financially aided through grants from the Land Conservation and Development Commission with funds obtained from the National Oceanic and Atmospheric Administration, and appropriated for Section 305 and 306 of the Coastal Zone Management Act of 1972.

TABLE OF CONTENTS

	Page
LANDSCAPE UNITS	1
Introduction	1
Alluvial Lowlands	1
Alluvial Terrace	2
Marine Terrace	2
Sedimentary Lowlands	2
Sedimentary Uplands	3
Basaltic Lowlands and Highlands	3
Estuary and Coastal Shorelands	4
Elk Creek Estuary	4
Tillamook Head	6
CRITICAL HAZARDS	8
Stream Flooding	8
Streambank Erosion	9
Mass Movement	9
High Groundwater	10
NATURAL RESOURCES	11
Mineral Resources	11
Water Resources	11
Forestry and Agriculture	12
CULTURAL	13
Housing	13
Recreation	14
Open Space, Historic, Scenic and Natural Areas	15
Fish and Wildlife	18
Transportation	21
Public Facilities and Services	22
Water Districts	22
Groundwater/Wells	23
Schools	23
Fire Protection	24
Septic Systems	25
Power Generation	26
COMMUNITY DEVELOPMENT	27
Setting	27
Assumptions	27
Development	28
Rural	28
Conservation	31
Natural	31

TABLE OF CONTENTS (cont'd.)

		Page
APPENDIX A:	The Elk Creek Estuary Plan.	34
APPENDIX B:	An Exception to Permit an Artificial Marsh Wastewater Treatment System in the Elk Creek Estuary.	38
FIGURE 1:	Elk Creek Estuary.	7
FIGURE 2.	General Landscape Units	7a
MAP 1:	Clatsop County Critical Winter Range for Big Game.	19
TABLE 1:	Algae Removal Treatment Process Alternatives.	42
TABLE 2:	Summary of Alternative Evaluation.	43

INDEX TO MAPS AND FIGURES

		Page
Map 1.	Clatsop County Critical Winter Range for Big Game.	19
Map 2.	Landscape Units of the Seaside Rural Planning Area.	7a
Map 3.	Hazards.	9a
Map 4.	Comprehensive Plan for the Seaside Rural Planning Area.	33a
Map 5.	Zoning Map for the Seaside Rural Planning Area.	33c

- - - - - - -

Figure 1.	Elk Creek Estuary.	7

- - - - - - -

Table 1.	Algae Removal Treatment Process Alternatives.	42
Table 2.	Summary of Alternative Evaluation.	43

LANDSCAPE UNITS

INTRODUCTION

The basic idea of the landscape unit is that it reflects a set of characteristics which, taken together, constitute a natural process. The soils, hydrology, wildlife, vegetation, and land forms are interrelated as a functional unit. The landscape units provide a framework for development that is, in part, based on the land's capability. Each piece of land is in a landscape unit. The landscape units which occur in the Seaside Rural planning area are Marine Terrace, Alluvial Lowlands, Alluvial Terraces, Estuary and Coastal Shorelands, Sedimentary Lowlands and Uplands, Basaltic Lowlands and Highlands, and Headlands and Points. Figure 1 demonstrates the profiles of the landscape units, while Map 1 shows their locations in the Seaside Rural planning area.

Further discussion on the landscape units' capacities and limitations can be found in the Southwest Environmental Plan (1974). The Environmental Plan contains four elements: landscape units, critical hazards areas, an open space program, and priority resources areas. Each element performs a specific purpose in incorporating environmental data and policies into the Community Plan Element. The policies in the environmental plan are the basis and background for the policies in this section and other sections of the Plan.

ALLUVIAL LOWLANDS

Alluvial lowlands are plains occupying valley floors which result from the deposition of clay, silt, sand, and gravel by water.

There are two areas of alluvial lowlands within the Seaside Rural area; the Necanicum River which empties into the estuary within the Seaside city limits, and the North Fork of the Nehalem River that drains the eastern part of the planning area.

The Necanicum River has carved out an alluvial valley for about 16 miles through sedimentary rocks in the northern part of the Seaside Rural area. The valley is underlain by gravel deposits. The alluvial gravels consist of poorly sorted sand, silt, and clay with some beds of basaltic pebbles and cobbles.

The largest alluvial lowland is the valley created by the North Fork of the Nehalem River. This valley extends about 6 miles north from the Tillamook County line. The North Fork drains much of the southeast part of the County ultimately into Nehalem Bay, just after it joins the main stream of the Nehalem River. This area consists primarily of silty clay, clay, and silty clay mixed with gravel. The slope of the lowlands is gentle, between 0 and 9%.

The major geologic hazard in the alluvial lowlands is stream flooding. Further information on this subject is contained in the section on Critical Hazards.

ALLUVIAL LOWLANDS POLICIES

1. Low intensity activities, such as low density housing and agriculture shall be preferred uses in the alluvial lowlands.

2. Residential development shall be at low densities (generally 2-10 acres) because of the occurrence of high groundwater and seasonal stream flooding.

ALLUVIAL TERRACE

Alluvial terraces are relatively flat or gently sloping surfaces marking former valley floors. Stream downcutting has caused the terraces to be higher than the present valley floor.

Alluvial terraces are found along the northern portions of the Necanicum River and generally east of the Nehalem along the North Fork. Terrace deposits consist mostly of clay and gravel.

This landscape unit is scarce in the planning area. Most of the property is productive timber land and presently in forest uses.

MARINE TERRACE

Marine terraces are relatively flat surfaces eroded by wave action. They are composed of relatively flat-lying or gently ocean-sloping compacted but uncemented sediments, rarely above 50 feet in elevation.

At Cannon Beach, the marine terrace deposits extend inland for about 3/4 mile into the planning area. Most of development that has occurred in the town is on the marine terrace formation. The land slopes from mountain to sea, affording many homes a view. This area is contained within the Cannon Beach Urban Growth Boundary.

SEDIMENTARY LOWLANDS

Sedimentary lowlands are low subsidiary hills on the edges of the uplands. In the Seaside Rural area they occur in the western portion of the planning area in and around Cannon Beach. They range in elevation from 50 to 500 feet, and are generally composed of sedimentary rock of Oligocene to Miocene age. They tend to have rounded ridge tops with slopes varying from 10 to 60%.

The sedimentary lowlands lie in an area of landslide topography. This is due to a combination of slope and bedrock material. When moisture comes in contact with the siltstone or claystone formations, friction between the soil and rock is reduced, and the force of gravity provides the impetus to push the overburden down a slope.

Most of the area containing this landscape unit is in timber production.

SEDIMENTARY UPLANDS

Sedimentary uplands consist of Coast Range Mountains over 500 feet, underlain chiefly by sedimentary rocks. Slopes may vary from 10 to 60%.

Sedimentary uplands compose the most common landscape unit in the planning area, interrupted in places by massive basalt outcrops.

The soils of the sedimentary uplands are the same, for the most part, as the sedimentary lowlands. The uplands, however, consist of mostly steep to very steep slopes which makes for rapid runoff and high erosion hazard.

Most of these lands are utilized for timber production by the large timber companies. However, there are some other landholdings containing this landscape unit in the Hamlet area, but the slopes are not above 20% reducing the presence of hazards.

SEDIMENTARY UPLANDS POLICIES

1. Generally, the sedimentary lowlands and uplands should be reserved for timber production, water supply protection, and wildlife habitat.

2. Any construction in these areas should recognize the potential detrimental effect it may have on the land in terms of runoff, erosion, drainage, or reduced stability.

BASALTIC LOWLANDS AND HIGHLANDS

Basaltic lands are underlain by igneous material. Most of the highlands are over 1200 feet in elevation though outcrops of basalt are also exposed at lower elevations. Slopes are frequently over 40%. They are scattered throughout the planning area, but the most prominnent outcrops encompass Angora, Onion, and Twin Peaks and Sugerloaf Mountain.

The slope of the basaltic formations ranges from 30% to 60%, with several near-vertical cliffs. Due to the density and crystalline structure of these formations, the basaltic lands do not contain the geologic hazards of other units. Basaltic rocks are more resistant to erosion than the sedimentary formations and, therefore, less liable to experience landslides. Rockfall can occur, however. Their isolation, slope and elevation make them generally unsuitable for most human activity. Because of their composition, they could constitute important mineral resources in terms of quarry rock for construction purposes. These areas are an important visual component of the County, providing the rugged, wild counterpart to the rest of the landscape that makes the area so unique.

BASALTIC LOWLANDS AND HIGHLANDS POLICIES

1. The highlands should be designated as a resource. Uses other than woodland, wildlife habitat, low intensity recreation, natural

and mineral resources shall be controlled by the County to avoid conflicts.

2. Residential development on basaltic lowlands and highlands (located in the Hamlet area) should be confined to the area along existing roads which are not characterized by steep slopes.
3. Small woodland management shall be encouraged.

ESTUARY AND COASTAL SHORELANDS

Elk Creek Estuary

Elk Creek is a well-mixed tidal creek having very low marine biological and moderate terrestrial biological value. Tidal influence extends to just above the U.S. 101 bridge a total distance of one-half mile.

Elk Creek has no definable eel grass beds or tidelands. The adjacent land as well as the land edge character is moderately diverse, and is comprised of a bulrush and sedge wetland above the U.S. Highway 101 bridge and a small wetland area located within the Cannon Beach city limits.

Elk Creek has sediments of mixed sand, gravel, and mud. These sediment types combined with low salinities limit Elk Creek to small anadromous fish runs of coho and steelhead trout. But for its size, Elk Creek sustains a fairly large stable run of native searun cutthroat trout.

The City of Cannon Beach is proposing to utilize approximately 15 acres of the marsh to the east of Highway 101 for an artificial marsh sewage treatment system. The area would be cleared of native vegetation and an earthern berm would be constructed to contain the marsh area and selected vegetation. The plants would be bulrushes, burreed, and arrowhead duck (Wapato) potato in approximately equal amounts. Sewage would first be treated through upgraded lagoons at the existing plant site and then pumped into the marsh. Sewage would be treated in the marsh during the growing season, then returned to the area west of Highway 101 to be chlorinated and discharged to Elk Creek. In the fall, the marsh would be harvested using mechanical equipment manufactured for lake and marsh cleaning. During the fall, winter and spring the marsh water level could be allowed to equalize with surrounding waters to protect it from flooding. This marsh treatment is estimated to be the most cost-effective alternative for sewage treatment. It has been determined that the project would require a fill and removal permit from the Division of State Lands, as does any major alteration of wetlands. (See Exceptions, Appendix B)

ELK CREEK ESTUARY POLICIES

1. The importance of Elk Creek is recognized as a recreational resource and natural area.
2. Efforts to improve and protect the Elk Creek fishery are supported.

3. The Elk Creek estuary is classified by this Plan as a Conservation estuary, which, under the State Goal, is defined as follows:

   Conservation: Areas shall be designated for long-term uses of renewable resources that do not require major alteration of the estuary, except for the purpose of restoration. These areas shall be managed to conserve the natural resources and benefits. These shall include areas needed for maintenance and enhancement of biological productivity, recreational and aesthetic uses, and aquaculture. They shall include tracts of significant habitat smaller or of less biological importance than those in natural estuaries, and oyster and clam beds. Partially altered areas or estuarine areas adjacent to existing development of moderate intensity shall also be included in this classification unless otherwise needed for preservation or development consistent with the overall Oregon Estuary Classification.

4. Permissible uses in conservation areas shall be those allowed in natural estuaries, active restoration measures, aquaculture, and communication facilities. Where consistent with resource capabilities of the area and the purposes of this management unit, high-intensity water-dependent recreation; maintenance dredging of existing facilities minor navigational improvements; mining and mineral extraction; water dependent uses requiring occupation of water surface area by means other than fill; and bridge crossings, shall also be appropriate.

5. The Oregon Department of Fish and Wildlife considers Elk Creek an important searun cutthroat trout stream. The creek also contains a coho salmon and steelhead run. Activities which would further degrade the habitat value of the creek and its adjacent wetlands shall be strictly controlled by the appropriate state agencies.

6. Filling of the water area of the creek or the wetlands below the 10' contour line shall not be allowed. Filling of wetlands above the 10' contour line shall be allowed only with permit approval from the Division of State Lands (DSL) or the U.S. Army Corps of Engineers, after demonstration of public need and public impacts.

7. Improvement or heightening of the existing dike on Elk Creek is permitted. Construction of new dikes, which would raise the flood level of the stream or affect adjacent property, or would remove or isolate wetlands, is not permitted.

8. Alterations on the shoreline or in the creek which would alter the flow of the stream, such as revetments, groins, jetties, fill or similar structures are not permitted.

9. Buffers shall be established along Elk Creek to provide public access to the water, to reduce flood or erosion hazards, and to protect riparian vegetation and wildlife habitat. The buffer

along Elk Creek should be the limit of the wetlands east of U.S. 101, and 10' contour line and the dike west of U.S. 101. Within the buffer, no structures or uses which would be subject to flooding or erosion, or which affect the public access or habitat value of the stream shall be allowed.

10. All activities in the Elk Creek Estuary shall be coordinated with the City of Cannon Beach to insure they are compatible with the City's Comprehensive Plan.

11. Any alteration of the estuary shall include activities aimed at mitigating the loss of natural systems. Mitigation activities, such as the replacement of wetlands areas for those which are filled, shall be done in cooperation with State and federal resource agencies.

12. The City of Cannon Beach is currently considering the possibility of upgrading its sewage treatment system by the addition of an artificial marsh and aquaculture treatment method. It is the position of the County that such an addition would not be in conflict with the Conservation designation of the Elk Creek Estuary.

Tillamook Head

The most northerly and largest coastal headland in Clatsop County is Tillamook Head, which has been described as "a complex of bold headlands, points of land, intervening coves, and shallow indentations". West Point, Bird Point, and Indian Point are part of this promontory.

Tillamook Head is composed of middle to late Miocene basaltic intrusive rock which includes thick sills, dikes, ring dikes, and pod-like bodies. The seaward face of Tillamook Head is very steep, up to 85%. The gently sloping eastern side of the headland consists of basaltic flows and sills. Many active landslides have been mapped in the Tillamook Head area, and have caused much destruction to Ecola State Park in the past.

Much of the area on top of Tillamook Head that is under State control is still in old growth forest, and as such constitutes a rare natural area in Clatsop County. The State Parks Division has acquired additional acreage at Tillamook Head to provide a buffer to protect the park forests against wind throw which could occur when the adjacent Crown Zellerbach forests are logged. The expansion of the park also protects the historic and primitive character of the headland trail, providing viewpoints of the farthest exploration area of the Lewis & Clark expedition in 1806.

TILLAMOOK HEAD POLICY

Tillamook Head shall be preserved as a unique coastal land formation. Uses other than forest management, wildlife habitat, low-intensity recreation, natural and mineral resources shall be discouraged. New and expanded mining operations on Tillamook Head which are in view of Highway 101 shall be screened with an appropriate buffer of trees.

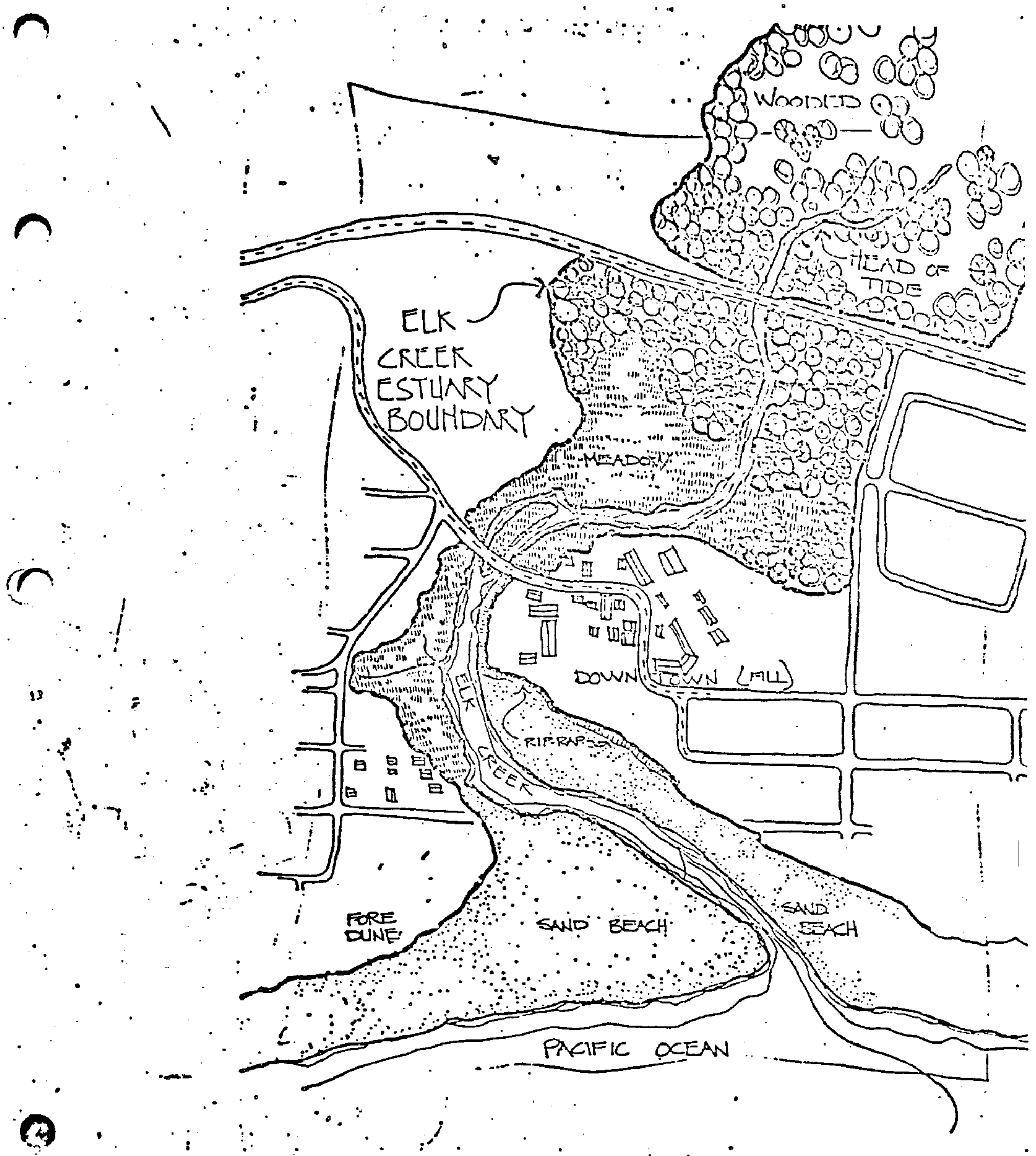
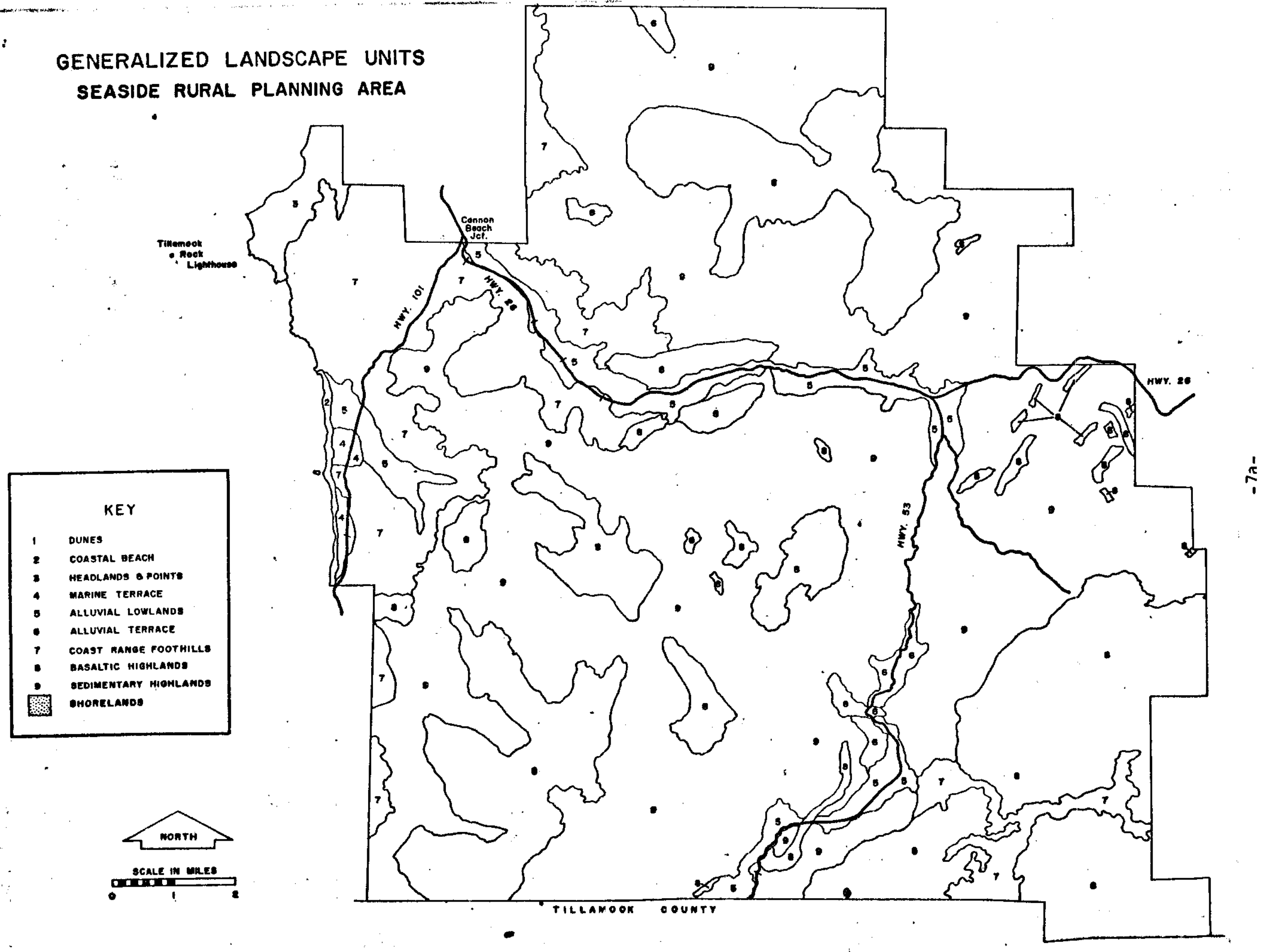


FIGURE 1.

ELK CREEK ESTUARY

GENERALIZED LANDSCAPE UNITS
SEASIDE RURAL PLANNING AREA



CRITICAL HAZARDS

STREAM FLOODING

Because housing sites along rivers are picturesque, they are increasing at a rapid rate. Many of these scenic locations are hazardous floodplains--the area intended by nature to accommodate the discharge and overflow of its waterways.

Major flood areas of the Seaside Rural area are on the Necanicum River and the North Fork of the Nehalem River between the southern County border and the hatchery. These streams overflow their banks at certain periods of the year, when heavy rainfalls, melting snow, high tides, strong winds, or restricted channels occur.

Clatsop County has participated in the National Flood Insurance Program since 1974. Adopted in 1978, a floodplain ordinance is now in effect. The purpose of these requirements is not to prohibit development in the floodplain but rather to encourage the most appropriate use of flood-prone areas. Buildings must be designed to minimize flood damage by flood proofing the structure or elevating it above the base flood. Two general methods are available to raise the lowest floor of a residence to or above the base flood level. One of these requires filling the low-lying area with compacted soil, then building in the conventional manner. The other method requires construction of an elevated foundation to raise the lowest floor of the residence above the base flood level. In addition, any new or replacement on-site waste disposal system or water system must be so located or designed to avoid impairment or contamination from flooding.

General policies regarding flood hazards are contained in the County-wide Hazards Element of the Comprehensive Plan.

Because developable property in the Seaside Rural area lies on both sides of the Necanicum River, there may be proposals to provide access to the other side. The property owners adjacent to the River must be reasonably assured that river crossings will not wash-out causing downstream damage or obstruct flood flows. This potential hazard is not addressed in the current floodplain ordinance.

STREAM FLOODING POLICIES

1. All future river or stream crossings shall be designed to provide adequate waterway openings and bridge clearance above flood flows.

2. Because new flood dike construction in floodplains can cause detrimental effects elsewhere along the river, County ordinances should strongly discourage this method of flood control.

STREAMBANK EROSION

The outer banks along channel curves are the most susceptible to streambank erosion because it is there that the momentum of the water carries it against the bank with the most force. Actual erosion rates are not known but are quite severe in spots along the Necanicum.

Allowing trees and other vegetation to remain on the banks, (i.e., providing a buffer) is essential to the health of the stream generally. The riparian vegetation stabilizes the banks and provides shade and cooling.

Prescribing a setback for improvements is another common method of safeguarding against potential damage but is difficult to prescribe due to the varying degrees of erosion that occur. In areas of severe streambank erosion it sometimes becomes necessary for a property owner to install rip-rap or other protection when a home is in danger. Sometimes this type of action can cause potential harm to neighboring properties.

STREAMBANK EROSION POLICY

Problems from natural erosion or the creation of situations where erosion would be increased due to actions on or adjacent to the river banks shall be avoided by:

a. prescribing a setback for the main structure of at least 35 feet in areas subject to erosion;

b. carefully reviewing state and federal permits for shoreline stabilization to minimize impacts on adjacent land; and

c. requiring a 25' buffer strip of riparian vegetation along all Class I streams(as defined by FPA) except in areas where the Forest Practices Act applies.

MASS MOVEMENT

Much of the land in the Seaside Rural area consists of old landslide topography which are large areas of rolling ground in which landslides could have occurred up to several thousand years ago. Due to the geologic conditions of the region these areas are still subject to movement. Such landslides are occurring in Ecola Park and above Cannon Beach. Many smaller unmapped landslides are present and can move when disturbed. Man's actions, such as construction of buildings or roads have also precipitated landslides.

Landslides, soil creep, slumping, or rockfall are all elements of mass movement. According to the Soil Conservation Service (SCS), certain soils consistently have mass movement potential at slopes above 20%.

Policies with regard to mass movement areas will be applied County-wide. The following are considered essential for the maintenance of natural features in the Seaside Rural area.

MASS MOVEMENT POLICIES

1. The minimum lot size in areas susceptible to mass movement will be 1 dwelling unit per 5 acres or larger.

2. Development in areas with slopes of 25% or greater shall generally have the natural topography intact.

3. Where hazardous soils relating to mass movement are known to exist, a site investigation will be required to determine stability and the extent of development that can safely occur.

HIGH GROUNDWATER

In the alluvial lowlands near streams, high groundwater is near the surface much of the year.

High groundwater can create hydrostatic pressure problems in that water pressure can fracture the floor and walls of basements if allowed to build up. Health hazards can also be created where septic tanks cannot drain properly. DEQ rules prohibit the issuance of septic tank permits when the groundwater level is within 5½ feet of the ground surface.

In the Seaside Rural area, major areas of high groundwater occur along the Necanicum River and North Fork of the Nehalem just north of the Tillamook County line. There are also minor areas between the mouth of Klootchie Creek and the Necanicum Fish Hatchery.

Policies relating to high groundwater and associated compressible soils are addressed in the County-wide Hazards Element.

NATURAL RESOURCES

The Seaside Rural area has an abundance of natural resources. Forests cover much of the area and numerous streams flow towards the ocean. There are many potential sources of rock in the area.

MINERAL RESOURCES

The two most common mineral resources in Clatsop County are sand and gravel, and crushed rock deposits. Sand and gravel are found in stream channels and bars, in the alluvial deposits of the stream valleys and in certain rocky beaches. No gravel pits are in operation at this time in the Seaside Rural area. Crushed rock is rare and valuable and is basaltic in origin. There are at least 10 rock quarries in operation in this part of the County. A major problem caused by the mining of crushed rock is the large exposed surface areas that can be seen for great distances.

The Seaside Rural area has many other areas of igneous rock and intrusive basalt outcrops. These areas of basalt rock should be examined for possible sites of future rock quarries to help the County meet its growing demands. Most of the areas are presently in forest management.

Policies and standards relating to mineral resources are handled County-wide.

WATER RESOURCES

The Seaside Rural area is very humid (80-120 inches of rain per year) resulting in many streams transporting water to the ocean. The major rivers in the area are the Necanicum River, which flows northwest through the northern part of the study area, and the North Fork of the Nehalem, which flows southwest and drains the southeast part of the planning area. Elk Creek drains most of the area immediately behind Cannon Beach. Circle and Klootchie Creeks are major tributaries of the Necanicum River.

Grassy Lake and Soapstone Lake are the only lakes in the area. Grassy Lake is a small, successional lake rapidly turning to marshy bog in the uplands between Onion Peak and Sugarloaf Mountain. Soapstone Lake is a 10 acre lake at 550 feet elevation, and is located east of Highway 53. The Seaside reservoir, located two miles south of the City, is a 2 acre body of water used to supply water to the City of Seaside and selective residents of the Seaside Rural area.

The Cannon Beach watershed is located along the west fork of Elk Creek about 3/4 of a mile upstream from the confluence of the forks. The watershed totals 15 acres of old growth and 45 acres of second growth timber which the City owns. Located within the watershed are some rather large old growth red cedar. The watershed provides some water quality protection of the City water supply which comes from three springs. But the City is concerned that logging and spraying of the commercial timberland which surrounds the watershed could seriously affect water quality.

The streams in this area of the County are an invaluable resource of the area. These streams provide water for the residents of the area, as well as providing habitat for both fish and wildlife. The streams in the area fluctuate considerably between January and August. During the winter months when the streams are at their peak, there is plenty of water in the stream channels.

WATER RESOURCES POLICIES

1. A buffer of 200' shall be designated around the upper perimeter of the Cannon Beach watershed which would allow the City and County to review proposals for logging and the applicable forest practices. The County should also consider the protection of other private and community watersheds.
2. Development or land uses that require channelization, excessive removal of streamside vegetation, alteration of stream banks, and filling into stream channels shall be restricted in order to maintain stream integrity.

FORESTRY AND AGRICULTURE

In the Seaside Rural area the majority of forest land is in corporate and public ownership and covers over 90% of the total land area. In past years the forests of the area were mostly composed of old growth Douglas Fir, but heavy logging and numerous forest fires have altered this considerably. These lands are intensively managed for timber production, the primary industry of the County. Recognizing this fact, the major forest lands are preserved in the Plan under a Conservation designation.

Some agricultural activity in the Seaside Rural area occurs along the Necanicum River Valley, the North Fork Nehalem River Valley, and two areas along the Little North Fork. These areas do not have the best potential for agriculture because of past development that has occurred resulting in small block sizes in comparison to other areas of the County. Nevertheless, some farming does occur in the area on a small scale, such as chicken farming and livestock grazing. These activities are considered compatible with rural residential living.

Policies concerning forestry and agriculture can be found in the County-wide Element.

CULTURAL

HOUSING

The Seaside Rural area is very sparsely settled, containing only 236 existing residences; the current distribution being 183 conventional single family residences, 51 mobile homes, and 2 duplexes. Most of the homes in the area are between 20-50 years of age and may require major repairs in the future. However, over 18% of the homes are newer.

Building construction in the Seaside Rural area has been fairly steady in the past (between 10-11 new dwellings/year) and increasing. In 1977 and 1978 the area received almost an equal amount of mobile homes to conventional dwellings. Thirty-six percent of the new construction was for out-of-town owners.

The current population in the area is 387 with an average household size of 2.5 persons per dwelling. The County population study forecasts permanent population will increase slowly with an additional 138 persons expected by the year 2000.

The County Housing Report forecasts the total housing units needed by the year 2000 to be 136, including 55 permanent residences and 81 seasonal units.

HOUSING POLICIES

1. Areas for mobile home parks shall be provided within urban growth boundaries because of their non-rural densities and the higher level of public services they require.

2. Opportunities shall be provided for elderly and low income housing projects within urban growth boundaries where necessary community services can be provided.

3. The location of a single mobile home on an individual parcel of land shall be allowed in all areas of the Seaside Rural area, subject to the following standards:

   a. The mobile home shall bear an Oregon "Insignia of Compliance" with a date not prior to 1972.

   b. Reconstruction or equipment installation shall be State approved as evidenced by an appropriate insignia.

   c. The mobile home shall be a minimum of 12 feet wide and contain a minimum floor area of 600 square feet.

   d. Mobile homes shall be installed in accordance with State standards.

e. Mobile homes shall have continuous skirting of compatible siding material.

f. Except for a structure which conforms to the State definition of a mobile home accessory structure (which includes such things as skirting, awnings, cabanas, some carports, tip-outs, etc.), no extension shall be attached to a mobile home. An outbuilding shall be separated from a mobile home by not less than six feet.

g. The mobile home shall be owned by the owner of the lot on which it is installed.

h. If a mobile home is removed from the site, the owner shall either replace the mobile home with another or remove the foundation and/or mobile home accessory structure(s) within a period of 30 days.

i. No roof shall be constructed over a mobile home independent of the structure.

RECREATION

Existing recreational facilities in the Seaside Rural area consist of the following:

State Parks

Ecola Park - 1,299 acres, 2 miles north of Cannon Beach off U.S. 101 on the coast. Shore frontage of 6 miles with fine sea views. Sea lion and bird rookeries are located on off-shore rocks, and deer roam the park at will. Two beaches, trails, fishing, picnic grounds, propane gas stoves at Ecola Point. 68 picnic units.

County Parks

North Nehalem Park - Section 22, T4N, R9W; 2.5 acres; tables, portable toilets, stoves.

Private Parks

Klootchie Creek Park (Crown Zellerbach) - 10 acres; 5 tent campsites, 15 trailer campsites, picnic tables, boat launch.

Black Bridge Park - 5 acres; picnicking.

These facilities are considered adequate to satisfy future needs for parks and open space. Additional fishing and boat launch sites, however, could be developed along the area's rivers. Losses of traditional fishing spots have occurred in the past as the area has built-up. There is concern, however, that the rivers be managed primarily for undeveloped natural areas.

The community's desire for slow change was strongly expressed throughout the planning process. Therefore, recreational facilities which cater to the tourist industry require close scrutiny to insure that noise levels are kept at a minimum, traffic congestion is prevented, and major highway improvements caused by increased use and promotion of recreational resources in the area are prevented.

Highway 101 receives extremely heavy long-distance and local bicycle traffic during the summer months. The route has been designated as part of the Bikecentennial path. This bike route is very dangerous, having many curves and no barriers preventing automobiles from entering the bike lane.

RECREATION POLICIES

1. Non-intensive recreational uses of the shoreland and water areas that are compatible with the rural character of the area (fishing, bird watching, picnicking) shall be preferred over noisy high intensity uses.

2. Public access to the Necanicum River and North Fork of the Nehalem River currently exists at several locations shown on Map_____. These accesses are considered adequate at this time. If new data indicates a need in the future, new access shall be developed on public land with adequate provisions made for the protection of adjacent privately owned land.

3. Existing public land shall be preferred for recreational development prior to acquiring additional locations.

4. Subdivision or planned developments along major streams and rivers shall provide access points to the water for residents of the development.

5. The County shall pursue the development of a safer bike path along Old Highway 101 to Cannon Beach. The State should incorporate the bike path with Highway 101 improvements planned for the area. This bike route should be given high priority.

6. RV parks and campgrounds are not considered appropriate uses of private or public land in the Seaside-Rural area.

OPEN SPACE, HISTORIC, SCENIC AND NATURAL AREAS

Open Space

As the Seaside Rural area becomes increasingly popular as a recreation, retirement and residential area, private land will be developed at an accelerating rate. Huge portions of the area, however, are and will remain in open space. The provision of acreage homesites provides elbow room and will maintain a rural open space character for the Seaside Rural area. Open space is one of the benefits of resource management. Resource management lands, such as forest and agriculture lands, provide or have potential economic value which requires some form of protection to maintain their wise utilization. A majority of the Seaside Rural area will be preserved for forest uses.

Parks and other recreational areas provide open space as part of their function. Ecola Park, North Nehalem Park, Klootchie Creek Park and Black Bridge Park together encompass over 1300 acres of open space. These areas are described further in the Recreation Section.

Areas that pose a hazard for development, such as floodways, become a system of open space as no structures or improvements are allowed. Areas that are to be preserved in their natural state for resource or wildlife protection will provide open space in the Seaside Rural area. Descriptions of these areas are contained in the following pages.

Historic and Scenic Areas

Historical sites which have been inventoried in the Seaside Rural area include the Tillamook Head Trail, Tillamook Rock (lighthouse), Clark's View (on Tillamook Trail), Indian Beach (Ecola State Park), WWII Memorial (Highway 53 Junction) and an old cemetery on Hill Road in the Hamlet area. Map_____showing the location of historic sites is on page_____.

The Tillamook Head Trail leads south from Seaside over Tillamook Head through Ecola Park and into Cannon Beach. Clark's view, at 1138 feet above sea level was visited by Captain William Clark while on a trip to Cannon Beach. A monument marks the spot. Indian Beach is the site of an early Indian fishing camp. These three sites are currently publicly owned and protected.

A lighthouse exists on Tillamook Rock that has been in existence since 1879. Official use of the light, however, was discontinued in 1957. The rock is now privately owned. Although there have been many speculative ideas to convert the lighthouse to such things as a gambling casino, access to the property is difficult and extremely dangerous. The structure itself is in a deteriorating condition and receives constant punishment by crashing breakers.

The WWII Memorial naming the Sunset Highway, once the Wolf Creek Highway, is located at the junction of Highway 53 and Highway 26.

Hamlet was named by early pioneers for its size. A post office was established there in 1905. The old cemetery has been donated to the community for preservation. Adjacent lands are in forest production.

The Hamlet School and Necanicum Garden Club buildings are maintained and utilized by the Hamlet Community Club.

There are no known Indian or other archeological sites in the Seaside Rural area.

Scenic areas in the Seaside Rural area include the rivers and highways. The highway from Silver Point to the Cannon Beach junction is a designated U.S. 101 Scenic Corridor, including a 50 foot buffer on both sides. Access is limited, no highway frontage is allowed, and all uses must be setback in accordance with State Highway Department regulations.

Some problems arise in scenic areas where clear cutting occurs in large areas within view of the highways, where mining and quarrying operations occur, and where abandoned vehicles and other junk is scattered along roadsides. While some problems are outweighed by the need to utilize our natural resources, resolving the junk problem is a matter of community pride and nuisance abatement.

Billboards and signs can also degrade scenic qualities. These are controlled by the State Highway Department and local policies regarding highway commercial developements and the prohibition of off-premise signs.

Natural Areas

Possible natural areas of the Seaside Rural area have been identified through the Oregon Natural Heritage Program. They are described in Site Evaluation Reports and are summarized as follows:

Old Growth at Grassy Lake Creek and Necanicum Road was located 13 miles south of Highway 26 on the west side of the Necanicum River. This once was the location of an 160 acre old growth spruce forest that has been logged.

Chapman Point is the first headland to the north of Cannon Beach with Ecola State Park immediately north. This 100 acre area includes a beautiful rugged headland which is very steep and rocky. This is a very pristine area. The owner apparently discourages trespassers and is striving to maintain the natural character of the property. The fragile system could not stand excessive human use.

Onion Peak is located approximately 9 miles southeast of Cannon Beach. This is a steep-sided, rocky peak, the highest in the area, at whose summit is a small remnant of the original Pacific Silver Fir-Western Hemlock forest. There is also a grassy bald area and a rocky garden community, both showing minimal disturbances. Found here are a significant number of rare and localized plant species. The Oregon Natural Area Preserves Advisory Committee to the State Land Board has recently proposed the summit under State ownership for a "natural area preserve". (See Preserve Analysis: Onion Peak, September 1979.) The Nature Conservancy is also negotiating with Crown Zellerbach to acquire their portion of the summit.

Sugarloaf Mountain is 2 miles south and 5 miles east of Cannon Beach. The summit of the mountain is approximately 10 acres with a rock garden community of rare plant species.

Grassy Lake is a two acre lake which is rapidly filling in and approaching a bog stage. This area presents a good example of aquatic succession uncommon at this elevation and is included here for its scientific significance.

Klootchie Creek Park was also inventoried. The site is a campground and picnic area, and contains the largest remaining Sitka Spruce tree.

NATURAL AREA POLICIES

1. Fragile and ecologically valuable area, especially wetlands, isolated lakes, stands of old growth timber, and areas of rare or endangered species will be considered for a NATURAL designation.

2. The predominant use for NATURAL areas shall be open space, scientific study, wildlife habitat, and low intensity recreation (trails, nature observation).

FISH AND WILDLIFE

The sparsely populated areas of the county provide excellent habitat for many forms of wildlife, mammals and birds, reptiles and amphibians. Some of the more common forms of wildlife found in the Seaside Rural area include:

Mammals

Roosevelt Elk
Black-tailed Deer
Black Bear
Coyote
Wildcat
Muskrat
Mink
Rabbit
Raccoon
Weasel
Ground Squirrel
Chipmunk
Beaver
Mole
Shrew
Meadow Mouse

Game Fish

Steelhead Trout
Silver Salmon
Chinook Salmon
Chum Salmon
Cutthroat Trout
Brown Trout
Rainbow Trout

Birds

Pheasant
Grouse
Quail
Mourning Dove
Pigeon

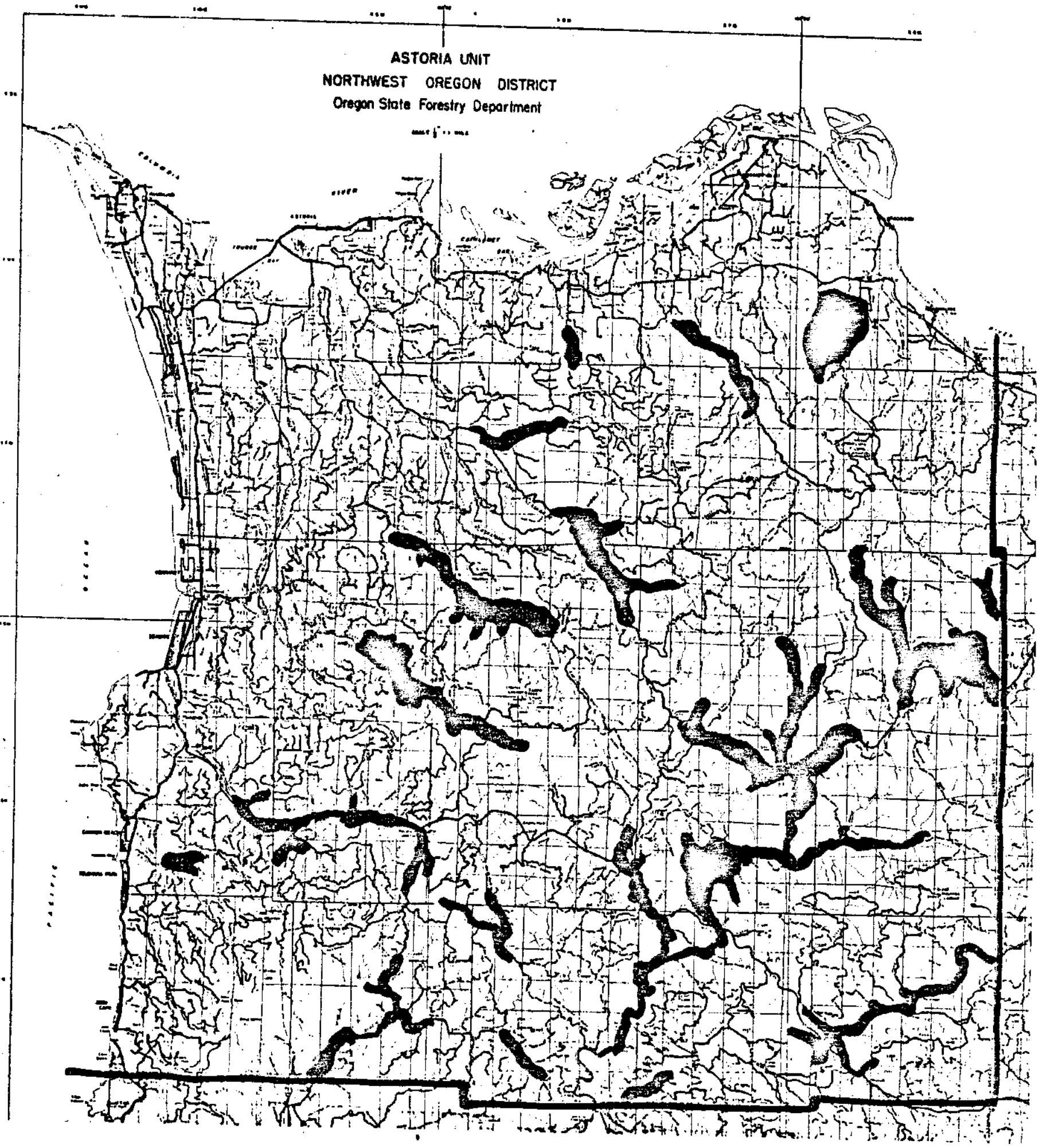
Grebe
Phalarope
Sandpipers
Seagulls
Cormorant
Murre
Killdeer
Tufted Puffin

Ducks
Merganser
Geese
Widgeons
Shovelers
Teal

Owls
Peregrine Falcon (rare)
Hawks

Crows
Ravens
Water Ouzels
Kingfisher
Great Blue Heron

Golden Crowned Kinglets
Woodpecker
Western Fly Catcher
Trails
Cowbirds
Golden Pilated Warbler
Goldfinch
Wrens
Swallows
Robins
Thrushes
Wren Tit, Bush Tit
Sparrows
Solitary Vireo
Blackbirds
Jays
Oregon Junco
Rufous-sided Towhee
Starlings
Finches
Hummingbirds



MAP 1

Clatsop County Critical
Winter Range for Big Game

Source:
This map prepared by
Oregon State Game Commission May, 1973.

Sensitive areas for big game are those lands essential to the survival of deer and elk during the critical winter periods. Critical winter range in the Seaside Rural area has been identified along the major rivers where most of the residential development has occurred. These areas have been designated for rural housing at appropriate densities. These critical areas also line the major highways which creates problems for travelers. Another major section of critical habitat has been identified on forest land east of the Necanicum and along the highway between Black Bridge and existing residences. These areas have been designated for forest uses which will minimize conflicts between elk and deer and other land uses. On the whole, the majority of the Seaside Rural area is forest land which creates good habitat for big game in the mixed stands of mature forests, brush lands, and clear cuts.

The existence and management of vegetation is closely tied to the presence of wildlife. Because large portions of the area's forest lands have been recently logged, natural grazing habitat has been provided. But while a clear cut area is beneficial to one species, it can have detrimental effects on the habitat of another. In 1970-71, for instance, the Necanicum River remained unfishable for 11 days during the steelhead season because of streamside logging and road construction.

Abundant wildlife, primarily anadromous fish and crustaceans populate the streams of the area. The Necanicum and Nehalem Rivers and Elk Creek are the prime streams for anadromous fish runs. Anadromous fish hatch in upland freshwater streams, migrate to sea to spend a major part of their life, and return to the freshwater upland stream to spawn a new generation of fish. Important to these streams is the maintenance of water quality and low turbidity levels. A fish hatchery to augment the natural production of anadromous fish is located on the North Fork of the Nehalem. Soapstone Lake is stocked with cutthroat and rainbow trout. The streams and lakes of the area also undoubtedly provide water, as well as habitat, to many other species. The streambanks in the area are generally lined with red alder trees, which fulfill a dual function of shading the stream and keeping the water cool for fish, and holding the bank soils in place as a deterrant to erosion.

Since 1970, the Forest Practices Act has set standards and limitations on logging practices to insure that activities have no detrimental effect on the water quality of the streams. Since most of the area's streams are in forest use, the Forest Practices Act will be enforced. Flood Ordinances will also insure that no structures block stream channels.

Headwater areas are sensitive drainages that fish generally do not inhabit, but where man's activities can cause a direct impact on downstream water quality. The goal for these areas is to reduce erosion and turbidity. Headwater areas in the Seaside Rural area are located in areas planned for forest uses which thereby limits development. Strict adherence to the Forest Practices Act will help to maintain water quality in headwater areas.

FISH AND WILDLIFE POLICIES

1. Residential development in areas of big game habitat shall be of a low density so that potential conflicts (i.e,, damage to gardens, yards, etc.) can be minimized.

2. Mining, dredging, or removal of gravel or similar materials from streams and other surface water shall be strictly controlled to prevent adverse alteration to flow characteristics, siltation and pollution, and destruction or disruption of spawning areas.

3. Off-road vehicles should only be allowed in designated areas because of the damage they can cause.

4. Because of the importance of fish hatcheries, activities or developments that could be detrimental to the water quality are discouraged in these creeks and the waters which drain into them.

TRANSPORTATION

The transportation system in the Seaside Rural area as well as the whole County, has been greatly influenced by the natural features of the land and water.

The major highway running north and south in the planning area is U.S. Highway 101 from the Cannon Beach Junction to the City of Cannon Beach. No major improvements are currently planned. The City of Cannon Beach is hoping to develop a safer and more efficient north entrance and will be asking the Highway Division to consider a proposal.

Highway 26 (Sunset Highway) is the major State highway in the area which runs east-west. This road provides a connection between the resort communities on the coast of Clatsop County and Portland. Major planned improvements to the highway include an elaborate, expensive alteration of the Cannon Beach junction and pavement widening of approximately 10 miles east of the junction. There is some concern that in the future the highway will expand to a 4-lane system with very rigid controls on access. Access is not a problem at present but could pose problems at various curve sections of the highway.

The other principal road is State Route 53, a narrow two-lane mountainous highway which runs from Necanicum Junction, 13 miles east of Seaside on the Sunset Highway, south into Tillamook County. Some large dips and dangerous curves make this route unsuitable for intensive use. There are no railroad, water or air transportation facilities in this section of the County. There is also no transit bus service provided in the area. The area is not expected to build up to the extent that public transportation will be needed. The automobile, therefore, is the major transportation mode.

Most residents shop in Seaside and work close by. They have learned to plan and limit trips to town by coordinating work activities with shopping needs. The distance to and from shopping, employment and residence is not a major problem, although a small neighborhood grocery store in the area would probably be convenient.

Bicycling in the area is primarily recreational in nature. The terrain and nature of the highway system makes bike travel difficult and hazardous. There are no designated bikeways and none are planned, although alternative U.S. 101 is a part of the nationwide "Bikecentennial" route from Astoria to Williamsburg, Virginia. A bikeway may be appropriate, however, from the Cannon Beach junction south to Cannon Beach along the "Old Highway" 101. Policies and discussion relating to this alternative is contained in the section on Recreation.

Because the Seaside Rural area is expected to be developed at very low densities, public transportation is not needed at this time to serve residents.

TRANSPORTATION POLICIES

1. Sunset Highway should be maintained in its present state with a minimum of widening. Capacity should be increased by straightening alignment and adding a passing lane in some sections if no new rights-of-way are required. The CAC does not support the development of the highway into 4 lanes.

2. The intersection of U.S. 101 and Highway 26 should be improved substantially. The CAC supports plans developed by the State Highway Division for improvements.

3. When the State Department of Transportation improves U.S. Highway 101, consideration should also be given to provision of a safe bikeway, suitable crosswalks, and the installation of curbing to separate the auto traffic where possible.

PUBLIC FACILITIES AND SERVICES

Water Districts

There are no water districts in the Seaside Rural planning area.

An 18 inch City of Seaside water line extends from their headworks on the South Fork of the Necanicum through a portion of the Seaside Rural planning area. The water line intersects Highway 26 west of the Black Bridge and runs west on Highway 26 to Seaside. The City's present policy, however, is not to permit hook-ups to this line in areas outside the City limits. The City services hook-ups that were existing before they adopted this policy and also hook-ups to properties who granted an easement for City water lines in exchange for a hook-up right.

The water line does provide an abundant source of water for good fire protection for this section of the Seaside Rural planning area.

Groundwater/Wells

Most of the Seaside Rural area is underlain by fine-grained marine sedimentary rocks and volcanic rocks of low porosity and permeability. Water yields are low, except in the alluvial plains (along rivers). Rain falling on the impermeable slopes of volcanic and marine sedimentary rock is rejected and runoff is rapid. Amount of water that enters the rock units is small, although it will often yield an adequate amount for domestic use. Groundwater in the alluvial plains is more abundant due to the permeability of the gravels and sands and seepage from the river. Generally water can be obtained at shallow depths in the wider floodplain areas.

Most wells in the alluvial lowlands produce good quality water for domestic use. Hard water, usually high in calcium and magnesium is likely to occur in wells in marine sedimentary and volcanic rocks.

Schools

The entire Seaside Rural planning area lies within Seaside School District #10. Seaside School District #10 has three elementary schools, a junior high school and a high school. In the tax year 1977-78, the tax levy is $1,917,734, at a tax rate of $8.07 per $1,000.

	Grade	Enrollment (As of Sept. 1976)	Capacity	Year Built	% Use
Seaside Heights Elementary	K-6	318	478	1974	67
Gearhart Elementary	K-6	273	275	1948	99
Broadway Junior High School	7-8	271	280	1949	97
Seaside High School	9-12	481	600	1958	96
Cannon Beach Elementary	K-6	135	140		96

Source: Brown & Root EIS 1977.

Presently all the children in the planning area are bussed to Seaside Schools except for an area on Highway 53 from the State Hatchery south to the County line. Children in this area attend school in Nehalem on a tuition basis. However, because of the costs of tuition, these children may in the future be bussed to Seaside Schools.

Fire Protection

There are 3 Rural Fire Protection districts in the Seaside Rural planning area.

Seaside Rural Fire Protection District:

The Seaside Rural Fire Protection District contracts with the City of Seaside to provide fire protection for its district which extends north to Avenue E in Gearhart and 7 miles south of Seaside along Highway 26.

Currently available to the rural district are facilities of the Seaside Fire Department which consists of the following:

Volunteers - 41 men
2 - 1500 gallon/minute pumpers
1 - 1250 gallon/minute pumper
1 - 3300 gallon tanker
1 - salvage vehicle - carries all equipment necessary for the protection and salvage of a structure (shovels, tarp, pumps to extract water, etc.)
1 - rescue vehicle
2 - jeeps for fire prevention
2 - service trucks

The Oregon Insurance Bureau has developed a protection class scale from 1 to 10 to aid in fixing insurance premiums for homeowners. The lower the rating, the lower the premium.

The district has an insurance rating of 4 in the Seaside Rural area--one of the first, if not the first, all-volunteer fire departments in the state to receive the Class 4 rating. Most of the other rural County insurance ratings are between 8 to 9.

One of the reasons the district received the Class 4 rating was the good supply of water from the Seaside water line running along Highway 26. Fire hydrants are located at the Crab Broiler, mobile home park on Highway 26, Klootchie Creek and Edgewater Terrace.

The other major reason for the low rating is the automatic aid system with the Gearhart and Cannon Beach fire departments.

Cannon Beach Rural Fire Protection:

The Cannon Beach Rural Fire Protection District extends from the north Cannon Beach City limits to the Arch Cape tunnel. The district levies taxes for its operation. In the past, Falcon Cove has contracted for service from the district. This agreement will end in 1980, when Falcon Cove will have the option to join the district to continue fire protection.

The following equipment and men are presently available.

Volunteers - 32 men
3 - 750 gallon/minute pumpers
1 - 1500 gallon/minute with a storage capacity of 1000 gallons
1 - Off-road vehicle mini-pumper
Fully equipped aid car
Aerial ladder truck

The districts insurance rating within the City limits of Cannon Beach is 6. For the rural area the rating is 8 to 9.

The major reason for the high fire insurance rating in the rural areas is a lack of adequate water supply or, in areas where there is community water, the water lines are too small to enable pumping of water for fire purposes.

Hamlet Rural Fire Protection District:

The Hamlet Rural Fire Protection District covers portions of Highway 26 and 53 and the Hamlet area. The district levies no taxes.

The district presently has the following equipment and men:

Volunteers - 15 men
1 - 750 gallon/minute pumper
Army tanker with capacity of 1,100 gallons

The district has an insurance rating of 9 to 10. The 911 emergency telephone number is operational in the district, as in all the County fire districts.

Septic Systems

The Seaside Rural residents are served by septic systems. Because of soil limitations, lot size, and slopes, each proposed subsurface sewage disposal site is considered on an individual basis.

A critical consideration in septic tank operation is development density. Problems result when development densities become too great for the soil to accommodate the resulting effluent discharges which could eventually surface and/or contaminate wells and other groundwater sources. The result is a potentially dangerous health situation.

SEPTIC SYSTEMS RECOMMENDED ACTION

The County should request that DEQ review its policy of allowing septic tank permits in mapped floodplains that frequently flood causing drainfields to not function during storms and in the winter.

SEPTIC SYSTEMS POLICY

Housing densities shall be kept low to avoid potential problems with septic systems.

Power Generation

Currently, all electrical power in Clatsop County is supplied by the Bonneville Power Administration (BPA) and is distributed, mainly, through the Pacific Power and Light Company. Small amounts of electricity are sold to and distributed in the Seaside Rural area by the Tillamook Public Utility District. The primary PP&L transmission lines serving the County are 115 KV lines from the Longview substation.

The Tillamook Public Utility District has a 24.9 KV line extending into Clatsop County which presently serves about 30 families on Highway 53 from the State Fish Hatchery south to the County line.

There are no natural gas lines serving this area of the County.

POWER GENERATION POLICY

The use of alternative energy sources (such as windpower, solar, etc.) and also the development of private and community energy systems are encouraged.

SETTING

The Seaside Rural planning area is an area of dramatic beauty. As one travels south from Seaside on U.S. Highway 101, the bold promontory of Tillamook Head looms as the first landmark of the study area. The head offers outstanding vistas and stands of old growth sitka spruce forest in Ecola State Park on top of a massive rock formation.

Continuing on, the highway begins to drop into the area of Cannon Beach and Tolovana Park, between the Pacific Ocean and the relatively low but rugged peaks of the Coast Range. Sugarloaf Mountain (2,858 feet) is the most prominent peak to the east with the distinctive Double Peaks ahead, closer to the ocean. Haystack Rock and the Needles can be seen to the west.

The eastern section of the planning area contains the lush and productive river valleys of the Necanicum and Nehalem Rivers, a vast area of forested peaks and canyons including Saddle Mountain, corresponding clearcuts, and dark basalt rock outcrops.

Highway 26 provides the main route of transportation east and west, with Highway 53 for north-south travel to the county boundary. These routes basically follow the two rivers.

Homesites are scattered along the highways, with some tourist commercial development occurring at the major junctions. Most of the individual property owners own between 1-9 acres of land and have resided in the area from 1-15 years.

ASSUMPTIONS

One of the things that makes the Seaside Rural area a pleasant place to live is the low density character of housing that has traditionally occurred. The area is peaceful and private and has grown very slowly in the past. This is due partly because of the vast amount of commercial timberland that dominates the area in contrast to the very small individual property ownerships.

The Plan is based upon the best information available, desires for future livability, economical and environmental balances, and lastly to comply with the Statewide Planning Goals and Guidelines.

Growth is to be managed to minimize or avoid environmental, cultural or economic conflicts.

OVERALL GOAL: To preserve and maintain the present overall rural quality of life new enjoyed in the Seaside Rural area.

Below are the definitions, objectives and policies for DEVELOPMENT, RURAL, CONSERVATION and NATURAL areas:

DEVELOPMENT

DEVELOPMENT areas are those with a combination of physical, biological, and social/economic characteristics which make them necessary and suitable for residential, commercial, or industrial development and includes those which can be adequately served by existing or planned urban services and facilities.

Lands within an Urban Growth Boundary are those determined to be necessary and suitable for future urban growth, and are included in this designation. The Urban Growth Boundary for the Seaside Rural area is around Cannon Beach.

The approximately 200 acres of buildable, vacant land included both within and outside the city limits, and within the Urban Growth Boundary represents the growth needs of the City for the next 20 years. Lands within the boundary are presently served by sewer and/or water, or are capable of being serviced in that they are generally below 140 feet of elevation. No commercial forest lands are included in the boundary.

The Elk Creek estuary, outside the city limits, is excluded from the Urban Growth Boundary. Lands with steep slopes, known or suspected geologic hazards, and which are considerable distances from city services are excluded from the boundary.

Policies pertaining to the Cannon Beach Urban Growth Boundary are contained within the County-wide Urbanization Element.

RURAL

Rural lands are those outside of DEVELOPMENT areas which, due to their value for low density residential uses, high intensity, and non-renewable mineral and non-mineral resource uses should be protected from conversion to more intensive uses. Residential developments served by few public services which satisfy a need that cannot be accommodated in urbanizable areas are likely to occur within this designation.

Predominant Uses:

1. Farming.
2. Small woodlots.
3. Low density residential (2 acres or more).
4. Commercial (gas station, grocery store).

In the Seaside Rural area there are about four distinct areas of housing. Because of the unique circumstances which characterize these areas, different lot sizes are proposed.

In order to compliment Cannon Beach's plan and to buffer the urban area from adjacent forest land, a five acre zone is proposed for land outside of the Cannon Beach Urban Growth Boundary. The Seal Rock and Elkwood Mountain subdivisions, however, are proposed for an average lot size of two acres because of existing ownerships.

The residential area from the Cannon Beach junction to Black Bridge is within the Seaside fire district and close to the commercial centers of Seaside and Cannon Beach. Because of the built-up nature of the area, this area is proposed for a two-acre zone.

The area east of Black Bridge to the Highway 53 Junction is proposed for a five-acre zone because of the distance to commercial areas, the existing average lot size, and as an intermediary between the two-acre zone and the larger ten-acre zone proposed for the area south of the Highway 53 Junction to Soapstone Creek Bridge.

The proposed ten-acre zone also includes the Hamlet area. This residential area is remote to services and large lots are prevalent.

Near the southern border of the County and close to Nehalem, the area is proposed for a five-acre zone. Many small ownerships occur in the area.

Objectives:

1. To retain rural areas as sparse settlement, small farms or scattered acreage homesites with hardly any public services.

RURAL POLICIES

1. All lands which are not currently in commercial timber production, parks, in the Cannon Beach Urban Growth Boundary, or NATURAL are designated RURAL, unless otherwise requested by the landowner.

2. Generally, the minimum parcel size for building sites shall be between 2-10 acres, depending on location and historical development. From the Cannon Beach junction, parcel size increases as the distance to services (i.e., grocery store) increases.

3. Clustered housing shall be discouraged in the Seaside Rural area.

4. Minimum front, side and rear building setbacks shall be as follows: 100' -- 10-acre zone
   75' -- 5-acre zone
   50' -- 2-acre zone, unless lot size and shape prevents the strict application of this standard.

5. In order to maintain the character of existing rural residential development, new or expanded commercial uses shall:

   a. Make the most effective use of the site's topography and existing landscape by placing buildings and improvements in such a manner to preserve existing trees and natural features.

   b. Minimize visibility of large parking areas from public ways through the use of landscape planting or parking behind the buildings.

   c. Provide a buffer or landscape planting area when abutting residential zones. Plants shoud be native to Western Oregon.

   d. Minimize highway approaches and pavement area wherever possible through the use of common driveways, access points, and other means such as clustering buildings and sharing parking.

   e. Limit sign area to two sides of one 8 square foot sign placed no higher than building. Avoid animation, flashing and illuminated or reflective signing and, in general, be designed so as not to distract from the surrounding area. Use of natural materials is encouraged. When lighting is necessary it should be subdued and indirect.

   f. Not advertise national brands of products or similar advertisements which are not promoting the primary item for sale on the premises.

6. Existing commercial establishments should also be required to meet the above standards at the time of expansion or a change of occupancy.

7. Expansion of the commercial zone should only occur to meet the needs of local residents.

8. A liberalized approach to home occupations in rural residential areas is encouraged. Ordinance provisions should allow one or two additional non-family employees; should allow necessary alterations, and should allow operations either within the dwelling or an enclosed accessory building. Care shall be taken to avoid disturbance to neighboring property owners.

9. Some small manufacturing operations should be allowed within commercial areas. Care should be taken to avoid disturbance to neighboring property owners through the establishment of minimum standards for floor or site area, number of employees, noise, odor and visibility restrictions.

10. Existing liquor establishments are considered adequate to meet local needs. New bars or taverns would only increase the problem with drunken driving and the high incidence of accidents on the highway. Therefore, new commercial establishments which sell liquor for consumption on the premises are not encouraged.

11. Commercial gambling establishements shall not be allowed to locate in the Seaside Rural area.

CONSERVATION

CONSERVATION areas provide important resource or ecosystem support functions but because of their value for low intensity recreation or sustained yield resource (i.e., forestry) should be designated for non-consumptive uses. Non-consumptive uses are those uses which can utilize resources on a sustained yield basis while minimally reducing opportunities for other future uses of the area's resources.

Predominant Uses:

1. Forestry/forest processing.
2. Farming.
3. Parks and scenic areas.
4. Small woodlots.
5. Community watersheds.

Objectives:

1. To conserve and protect natural, scenic, historical and cultural resources.

2. To develop for low-intensity uses which do not substantially degrade the existing character or interrupt the flow of natural resource use or recreational benefits.

CONSERVATION POLICIES

1. Forested areas should be preserved for forest uses.

Other policies pertaining to CONSERVATION areas are located in the Forestry section of the Comprehensive Plan.

NATURAL

A natural area is defined as land and/or water units in which natural processes exist relatively undisturbed or can be restored to a nearly natural state. Natural Areas include:

1. Native terrestrial, freshwater or marine ecosystems, e.g., a salt

marsh or stand of old growth forest.

2. Areas containing significant biological, geologic, hydrologic, paleontologic, archeologic or scenic features, e.g., a single fossil bed or waterfall.

3. Areas particularly valuable for plants and wildlife:

   a. as habitat for rare, endangered, endemic or otherwise unique species;

   b. as exceptionally productive or diverse habitat;

   c. as vanishing habitat;

   d. as habitat crucial to a stage in a species' lifestyle, e.g., spawning grounds, or wetlands along flyways.

Natural areas are important to the community as a whole, for they offer a unique aesthetic and educational experience; i.e., the opportunity to view, study and explore the array of natural elements witnessed by the early explorers of our region. They serve as the natural heritage to be passed on to future generations.

The potential natural areas which are listed on page 17 were reviewed to determine if conflicting uses preempt their inclusion into a protective zone. The following is the result of this review.

Old Growth at Grassy Lake Creek The stand of old growth has been logged. A NATURAL designation is not appropriate.

Chapman Point This point is located within the Cannon Beach Urban Growth Boundary and is designated for open space uses which is consistent with the need to protect the area.

Onion Peak and the Summit of Sugarloaf Mountain Although presently owned by forestry interests, timber value is low. The area is recommended for protection and Onion Peak is presently being acquired by the Nature Conservancy.

Grassy Lake Since the value of this lake is questionable, no protection is recommended.

Klootchie Creek Park Because of its intensive use and developed nature, it is not considered NATURAL in the true sense.

Soapstone Lake and Homestead Meadow were not inventoried by the Nature Conservancy but are considered important to the community for aesthetic and historic reasons. The unique features of these two areas should be left undisturbed.

NATURAL POLICIES

1. The summit of Onion Peak boundary (as described in the Preserve Analysis, September 1979 by the Natural Area Preserves Advisory Committee) and a small meadow on the summit of Sugarloaf Mountain support sub-alpine type "grass bald" and "rock garden" communities with eleven or more rare or endangered plant species. These areas shall be designated NATURAL, and preserved for research and education. An established hiking trail is not recommended as the areas are small and fragile and could not tolerate trampling and soil erosion.

2. Soapstone Lake and Homestead Meadow shall be designated NATURAL.

   In addition, the Seaside Rural Citizen Advisory Committee recommends that the Elsie-Jewell Citizen Advisory Committee seriously consider the 160 acre parcel on Humbug Mountain currently owned by the State Parks Department as a NATURAL area.

ZONING

Map 5, "Zoning Map", will be used to implement the Community Plan Map and Policies.

Until the new zoning ordinance that prescribes standards and provisions of the various designations on the map are adopted, Map 5 will be used to determine allowed housing densities.

The existing zones and zoning ordinance shall apply except as modified by densities shown Map 5 or when modified by specific policies in this Plan.

USE DESIGNATIONS SHOWN ON MAP 5	APPROPRIATE ZONING ORDINANCE #66-2 SECTIONS TO BE USED	
Commercial	C-1 & C-2	4.070 & 4.080
Rural Residential	R-A & GFF	4.060
Conservation	GFF	4.060

All overlay districts and provisions will continue to apply.

Natural designations, aquatic and shoreland designations shall be administered temporarily through use of the permitted use matrix contained in Page 34 of the Comprehensive Plan.

When provisions in the existing zoning ordinance conflict with the objectives and policies contained in the Seaside Rural Plan, the policies in the Community Plan shall control in the interim before the existing zoning code is brought into compliance with this Plan.

APPENDIX A

THE ELK CREEK ESTUARY PLAN

PERMITTED USES BELOW THE 10' CONTOUR LINE

	PERMITTED USES	PERMITTED AS CONDITIONAL USE	NOT PERMITTED
1. Aquaculture		X	
2. Boating (Unmotorized)	X		
3. Commercial Uses			X
4. Diking			X
5. Dredging			X
6. Filling			X
7. Floating Docks		X	
8. Forest Management		X	
9. Industrial Uses			X
10. Jetties			X
11. Marinas			X
12. Mining or mineral extraction			X
13. Mobile Homes			X
14. Motels/Hotels/Inns			X
15. Natural Uses	X		
16. Parking Areas			X
17. Pasturing			X
18. Recreation with Structures			X
19. Recreation without Structures	X		
20. Recreation Vehicle Area			X
21. Residences			X
22. Shoreline Stabilization		X	
23. Sewage Treatment Facilities		X	
24. Structures - Auxillary		X	
25. Streets (New)		X	

EXPLANATIONS AND CONDITIONS

For the purposes of the Estuary Plan the following explanations and conditions apply:

1. Aquaculture:

   The raising of fish and shellfish for harvesting, release and recapture, or fishery enhancement. Facilities must meet the requirements of the Oregon Department of Fish and Wildlife.

2. Boating:

   Unmotorized boating, including canoes, rowboats, kayaks, rafts and similar small craft. Small docks for launching boats are permitted as a conditional use.

3. Commercial Uses:

   Retail, wholesale or service businesses requiring alteration of the shoreline or structures.

4. Diking:

   The construction of a new or substantially improved dike. Minor improvement to the existing City dike is permitted (See the Policy number 4).

5. Dredging:

   Removal of materials from a wetlands or body of water for channel deepening, realignment, boat basin or other uses.

6. Filling:

   Creation of new upland areas by modifying the waterway or its bank with an appreciable reduction of the existing water surface or wetlands area.

7. Floating Docks:

   A floating structure for the purpose of access to and use of the primary waterway. Docks require permits from the Division of State Lands and the U. S. Army Corps of Engineers.

8. Forest Management:

   The management of a forest area, including logging, thinning, replanting, fertilization and road construction. The Oregon Forest Practices Act is applicable here, and a stream buffer is required for habitat protection. Special consideration should be given by the Oregon Department of Fish and Wildlife to the impacts on the Elk Creek fishery.

9. Industrial Uses:

Manufacturing, processing, or other intensive activity requiring structures, storage areas, power, sewage disposal, and road access.

10. Jetties:

Structures extending from a shoreline to control the flow of water.

11. Marinas:

A small harbor, boat basin, or moorage facility providing dockage for small crafts.

12. Mining or Mineral Extraction:

The removal of aggregate (gravel), minerals or other material from the water area or wetlands of a stream for use elsewhere.

13. Mobile Homes:

A manufactured dwelling designed and built under State and Federal standards.

14. Motels, Hotels, and Inns:

Commercial tourist or transient accommodations.

15. Natural Uses:

Wildlife viewing, hiking, flood plain absorption, wildlife and plant habitat.

16. Parking Areas:

Areas used for the parking of vehicles, whether paved, graveled or graded.

17. Pasturing:

The pasturing of animals, such as horses, cattle or other large animals, including sheds or stables is prohibited.

18. Recreation With Structures:

High intensity recreation, such as tennis, bowling, swimming pools, or other use involving major construction or alteration.

19. Recreation Without Structures:

Low-intensity, passive recreation such as fishing, hiking, horseback riding, and similar uses.

20. Recreation Vehicle Area:

The parking of recreation vehicles by a public agency or private person, either overnight or on a day-use basis. RV areas must be located on sites well buffered from the creek, and must meet the standards in the zoning ordinance and applicable state standards.

21. Residences:

Single family, duplex or multi-family dwellings, used as permanent or vacation housing.

22. Shoreline Stabilization:

Placement of rip-rap, seawalls, revetments, or other activities to stabilize eroding shorelines. Stabilization on the beach must meet the requirements of the State Parks Branch (See Hazards Section), must not displace wetlands as defined by the U. S. Army Corps of Engineers and the Division of State Lands, must be the minimum necessary to prevent erosion (not flooding), and must be visually unobtrusive. Stabilization devices shall be properly engineered.

23. Sewage Treatment Facilities:

Sewage treatment lagoons, marshes, or other facility, not including a chemical or mechnaical plant involving major construction.

24. Structures (Auxillary):

Structures which are incidental to an otherwise permitted use, such as a boathouse on a dock, a horse shed, public restrooms, or similar small buildings. Structures must be fully flood protected, not involve the elimination of wetlands, and be visually compatible with the estuary landscape.

25. Streets:

New streets serving permitted uses; shall be summer access roads wherever possible, not need fill or grading, the displacement of wetlands or water areas, removal of riparian vegetation, or construction of bridges or culverts.

APPENDIX B

AN EXCEPTION TO PERMIT AN ARTIFICIAL MARSH WASTEWATER TREATMENT SYSTEM IN THE ELK CREEK ESTUARY

Description of the Proposed Action. The construction of an artificial marsh wastewater treatment system within a fresh water wetland located in the Elk Creek estuary directly east of Highway 101 and the existing sewage treatment lagoons. The artificial marsh, covering approximately 15 acres, would consist of emergent macrophites such as bulrushes, burreed and wapato. The marsh would provide tertiary sewage treatment capacity during the summer months.

An exception is being taken to that portion of the Estuarine Resources Goal which states that "Dredge, fill or other reduction or degredation of these natural values by man shall be allowed only: (1) if required for navigation or other water-dependent uses that require an estuarine location;..."

The major elements of the project that involve alteration of the estuary are:

1. Construction of approximately 1,500 feet of drainage channels; and
2. Construction of an earthen berm to contain the marsh; and
3. Placement of rip-rap along a portion of the berm, and
4. The installation of a system of redwood baffles.

Need. Sewage treatment in Cannon Beach is presently provided by a three-celled stabilization pond system. During the winter months the plant operates well below design capacity and discharges chlorinated effluent into Elk Creek in conformance with both present and anticipate future winter effluent limitations established by the Department of Environmental Quality. During the summer, however, the plant operates near or in excess of design capacity and effluent quality exceeds the more stringent summer discharge limitations. Because the present sewer system cannot meet the summer effluent discharge standards, the Department of Environmental Quality is requiring that the City upgrade its wastewater treatment facility.

Alternatives. There have been three studies conducted to evaluate alternative wastewater treatment methods: CH2M-Hill Inc. "Wastewater Facilities Plan - City of Cannon Beach," 1976, and CH2M-Hill Inc. "Supplement to Wastewater Facilities Plan - City of Cannon Beach," 1977; and KCM "Development and Evaluation of Alternative Wastewater Treatment Schemes - City of Cannon Beach Facilities Plan Addendum," 1978.

The 1976 study evaluated numerous alternatives. Their advantages and disadvantages are summarized in Table 1. Three main alternatives were focused on: chemical treatment, isolation ponds and ocean outfall. Their advantages and disadvantages are summarized in Table 2. Ocean disposal was rejected primarily because of high cost and questions about technical feasibility. The main reasons for rejecting the chemical treatment alternatives were cost, the difficulty of operating sophisticated equipment by a small town, and the disposal of sludge. Phase isolation ponds' major disadvantages were found to be its requirement for an extensive land area and its experimental nature. A similar system later proved unsuccessful in Ontario, Oregon.

Subsequently an evaluation of a biological treatment plant (activated sludge) was made. This system was found to have major problems involving high cost, disposal of sludge and the aesthetic implications of converting existing settling ponds to sludge holding ponds. These were felt to outweigh the advantage of the known reliability of this most conventional of sewage treatment methods.

Based on the City's dissatisfaction with the presented alternatives, a third study examining systems that required low amounts of energy that were non-mechanical in nature was made. This is consistent with the 1977 Federal Clean Water Act amendments which encourage innovative systems. Three systems were investigated; a marsh system, a marsh/aquaculture system and an intermittent sand filtration system. The selected alternative was the marsh system.

The major advantages of this system are: the lowest cost of all systems reviewed, little consumption of energy, and no sludge to be disposed of. The major disadvantages are short-term environmental disturbances resulting from conversion of the present wetland to an artificial marsh, and the potential loss of elk wintering habitat.

In addition to the proposed site, other marsh treatment site alternatives have been investigated. An alternative "wetland" site located between the present sewage lagoons and Spruce Street was evaluated. This site has the advantage of being in closer proximity to the existing sewage treatment facility. Its disadvantages were insufficient land area, the possible loss of the area's important flood retention capability with regard to the town center, and its use as an elk wintering area. The disadvantages were found to substantially outweigh the advantages. Higher upland sites were not considered desirable because of the accepted engineering practice of locating sewage treatment facilities at as low an elevation as possible.

Environmental Consequences. The drainage throughout the proposed marsh area will be modified by drainage channels which will be required for construction dewatering. The ground water will be modified during construction, but should return to its original level since the marsh will provide recharge. The berm surrounding the marsh will alter the flooding characteristics of Elk Creek. In minor floods, those not higher than the berm, flood water will be displaced to other areas. There will be little or no impact in floods that are higher than the berm. The marsh would act as a retention area just as it does now. The water quality of Elk Creek, in the summer months, would be increased because of a higher standard of wastewater treat-

ment. The existing wetland vegetation, consisting of sedges, alder, twinberry and crabberry, would be replaced by suitable marsh plants. Species under consideration include bulrushes, burreed and wapato. Wapato is included on a proposed Oregon state list of rare, threatened, and endangered plants being developed by the Oregon Rare and Endangered Plant Species Task Force. The development of the artificial marsh may also result in the introduction of non-native species. The marsh will produce quantities of vegetation which will require disposal.

The area provides winter range for elk. The artificial marsh may reduce or eliminate this range, depending on facility design. Information on the total amount of winter range for elk in the Cannon Beach area is not available. Fur bearers and other non-game animals will be displaced during construction. If allowed access, these animals should return upon establishment of the artificial marsh. Because the project will improve the quality and quantity of marsh habitat, an increase in the use of the area by waterfowl and other marsh fauna is anticipated. The creek's fish resources should be positively affected through an improvement in water quality. This method does not create sludge that has to be disposed of. The project will be designed to minimize any adverse impacts. This will be insured through the state and federal permits that will be required.

Economic, Social and Energy Consequences. This is the least expensive of all the alternatives evaluated because of its low energy and capital equipment requirements. Development of the artificial marsh system will increase knowledge about this "innovative" waste treatment system.

Compatibility. The immediately adjacent areas are presently vacant. The existing City wastewater treatment plant is located west of the site, across Highway 101. The Cannon Beach Comprehensive Plan and the Cannon Beach Zoning Ordinance designate the area to the south as Residential-Alternative Mobile Homes. This is a residential zone which permits conventional built housing and mobile homes. No conflicts between the artificial marsh and residences are foreseen. The area to the southeast is designated by both the Clatsop County and Cannon Beach Comprehensive Plans and Zoning Ordinances as Residential Very Low Density. This is a holding zone inside the City's urban growth boundary permitting single family residences on 1 acre lots. When sufficient City services become available such areas may annex to the City and request higher density residential zoning. No conflicts between the artificial marsh and either low density or higher density residence are foreseen.

The Elk Creek Estuary has been classified by Cannon Beach and Clatsop County as a conservation estuary. The purpose of a conservation estuary is to provide for long-term uses of renewable resources that do not require major alteration of the estuary. The artificial marsh is compatible with this intent. The artificial marsh treatment system represents a long term use of a renewable resource, the wetlands vegetation being the renewable resource. The artificial marsh will function as part of the estuary, just as the present marsh does.

The project will not pre-empt any other anticipated or foreseeable water-dependent uses.

Conclusion. There is a need for the City of Cannon Beach to upgrade its wastewater treatment plant. The proposed artificial marsh treatment system and its location is the alternative selected after more than three years of study and the evaluation of numerous alternatives. The environmental, social, economic and energy consequences of the project are acceptable. The project will be compatible with the Elk Creek Estuary and the anticipated development of the surrounding area.

TABLE 1

ALGAE REMOVAL TREATMENT PROCESS ALTERNATIVES

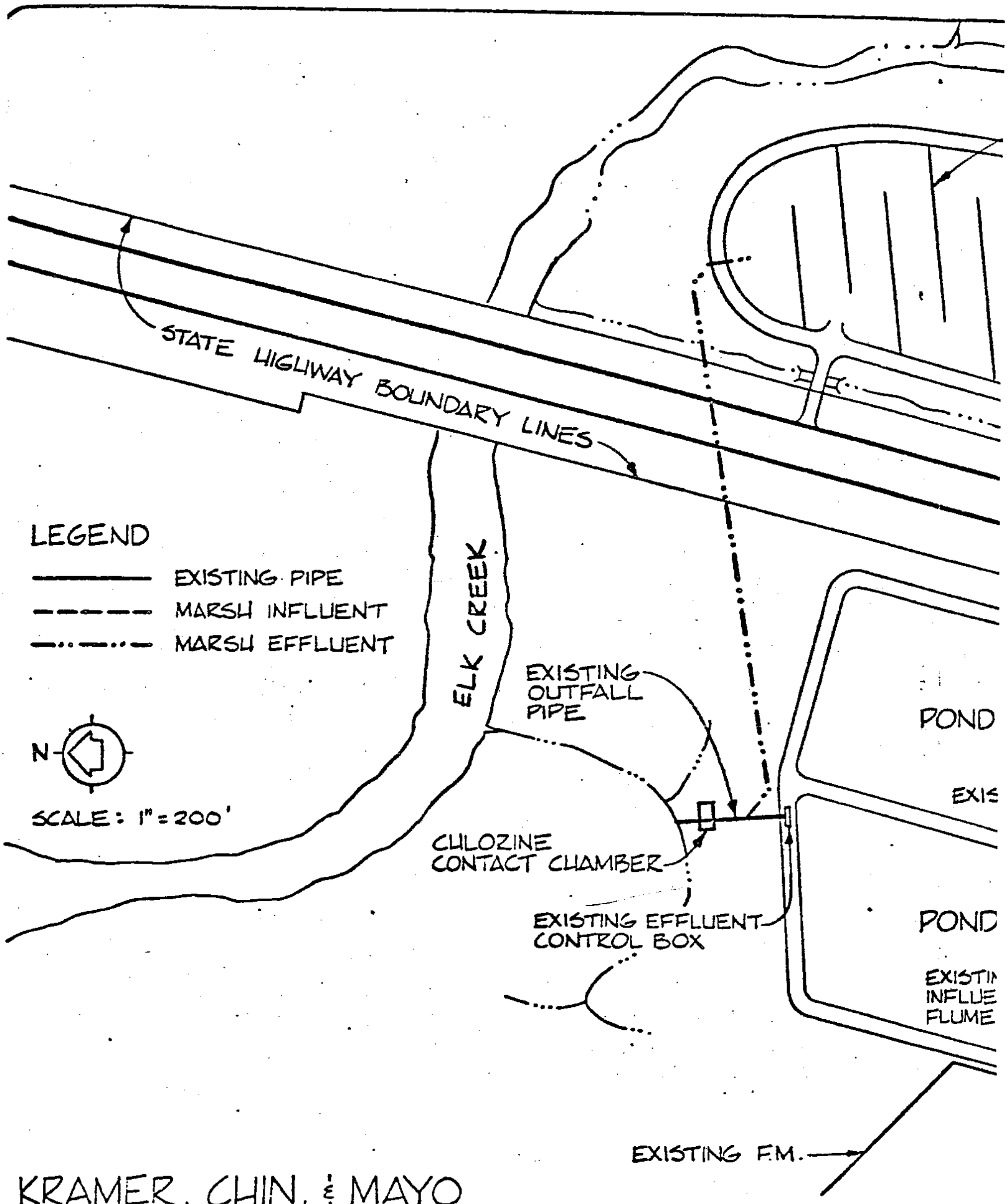
Treatment Method (References*)	Advantages	Disadvantages
Chemical Coagulation with Settling (1,2,3,11,14,15)	1. Consistent effluent quality 2. Simple mechanical operation 3. Flexible process control 4. Considerable test data	1. Requires attention to chemical addition for process control 2. Possible natural flotation of algae 3. Need to add filtration to assure 10/10 effluent quality 4. Dilute sludge produced
Chemical Coagulation with Flotation (1,4,6,18)	1. Consistent effluent quality 2. Flexible process control 3. Concentrated sludge produced 4. Considerable test data	1. More complex mechanical operation 2. Requires attention to chemical addition and flotation variables for process control 3. Need to add filtration to assure 10/10 effluent quality
Mixed-Media Filtration (6,15)	1. Consistent effluent quality	1. Need to precede by chemical coagulation and settling (or flotation) to prevent rapid headloss buildup in filter 2. More complex mechanical operation
Sand Filtration (7,8)	1. Simple mechanical operation 2. Consistent effluent quality 3. Considerable test data	1. Tested process only for low algae concentrations 2. Labor-intensive operation to clean and replace sand 3. Wet climate may require covered filter area
Rock Filtration (9,10)	1. Simple mechanical operation 2. Considerable test data	1. Inconsistent effluent quality 2. Untested process for high algae concentrations
In-Pond Chemical Coagulation and Settling (5,15)	1. Simple mechanical operation (motorboat application of chemicals)	1. Inconsistent effluent quality 2. Not possible to control process once chemicals are added 3. Only tested once
Isolated Algae Removal Pond (Phase Isolation)(16)	1. Simple mechanical operation 2. Full scale system in operation	1. Relies upon natural algal precipitation; process control not possible 2. Additional large pond area required for adequate detention
Microscreening (1,2)	1. Simple mechanical operation	1. Inflexible process control 2. Unreliable process on single-cell algae 3. May need to precede by chemical coagulation

*References are listed in Appendix C.

TABLE 2

SUMMARY OF ALTERNATIVE EVALUATION

Alternative	Major Advantage	Major Disadvantage
	ENGINEERING EVALUATION	
1A and 1B (Chemical Treatment)	Well demonstrated treatment system for algae removal.	Pilot testing required to determine best sludge dewatering method.
2 (Isolated Ponds and Future Chemical Treatment)	Requires least attention to additional treatment process.	Pilot testing required to determine isolated pond performance.
3 (Ocean Outfall)	No additional treatment process to control.	Permanence of outfall pipe installation is uncertain.
	ENVIRONMENTAL EVALUATION	
1A and 1B (Chemical Treatment)	Retains maximum buffer zone around plant site.	Uses considerable amounts of chemicals and requires sludge disposal.
2 (Isolated Ponds and Future Chemical Treatment)	May delay requirement for chemical treatment.	Uses large land area and leaves minimal buffer zone around plant site.
3 (Ocean Outfall)	Uses least amount of natural resources and energy.	More disruption of community during construction.
	ECONOMIC EVALUATION	
1A and 1B (Chemical Treatment)	Process combinations could reduce capital costs.	Highest O&M costs.
2 (Isolated Ponds and Future Chemical Treatment)	Lowest overall present worth, and amenable to staging.	Capital costs will increase if land must be purchased.
3 (Ocean Outfall)	Lowest O&M costs.	Highest overall present worth.



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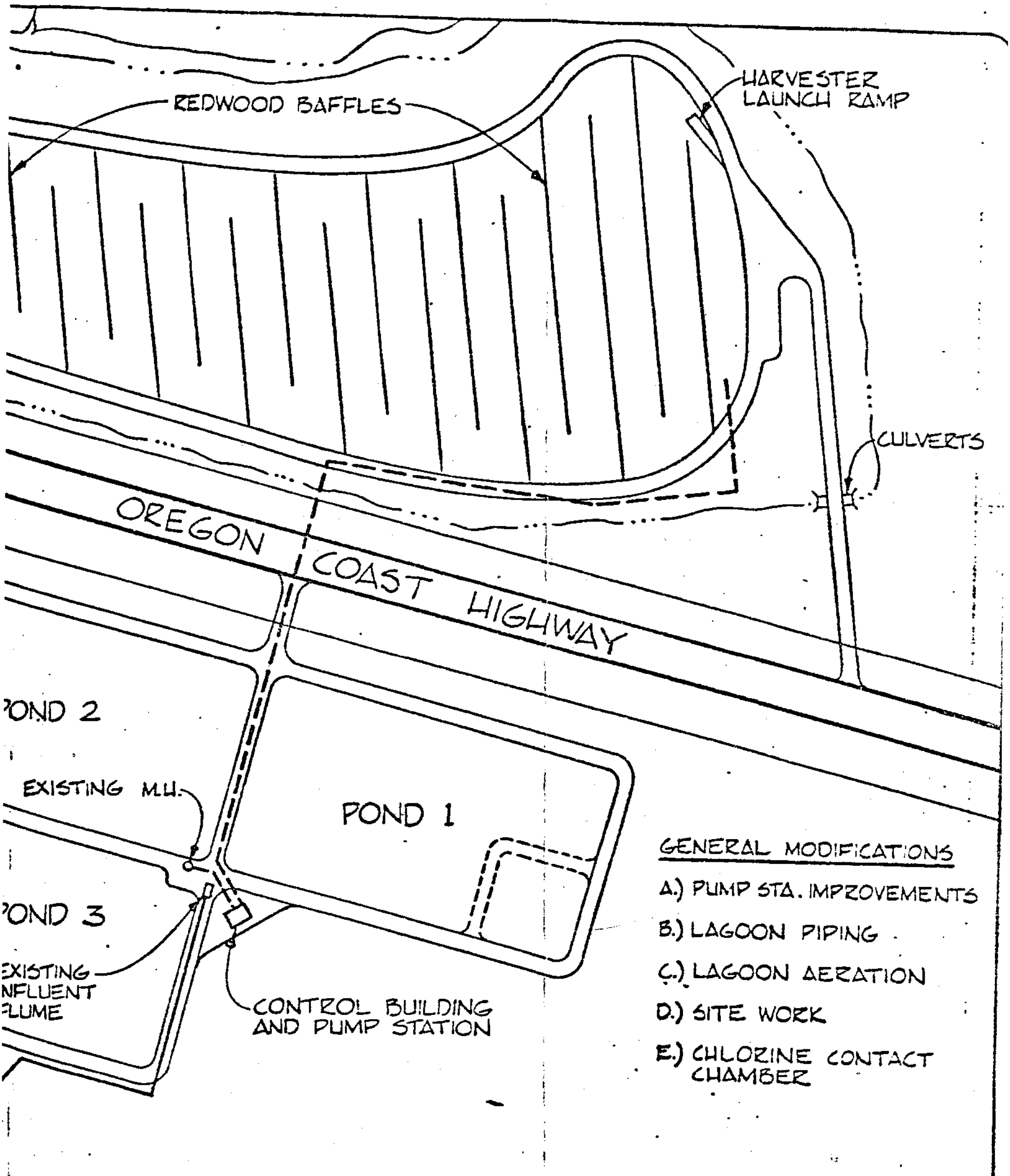

WASTEWATER TREATMENT SCHEME # 1
MARSH SYSTEM

FIG. 4.1

Exhibit "E"

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

CLATSOP COUNTY COMPREHENSIVE PLAN

ELSIE-JEWELL COMMUNITY PLAN

Prepared jointly by:

Elsie-Jewell Citizen Advisory Committee
Clatsop County Department of Planning and Development

The preparation of this report was financially aided through grants from the Land Conservation and Development Commission with funds obtained from the National Oceanic and Atmospheric Administration, and appropriated for Section 305 and 306 of the Coastal Zone Management Act of 1972.

ACKNOWLEDGEMENTS

The Elsie-Jewell Citizen Advisory Committee has devoted numerous hours in long meetings in the preparation and review of this Plan. In addition, there were numerous interested persons who attended the Citizen Advisory Committee meetings.

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
LANDSCAPE UNITS	2
Shorelands	2
Alluvial Lowlands	5
Alluvial Terraces	5
Coast Range Foothills	5
Sedimentary Uplands	6
Basaltic Highlands	6
NATURAL RESOURCES	7
Forest Lands	7
Agricultural Lands	7
Water Resources	7
Fish and Wildlife	8
CRITICAL HAZARD AREAS	9
Flood Hazard	9
Shoreline Erosion	9
Mass Movement	
CULTURAL	11
Housing	11
Public Facilities and Services	11
Transportation	12
Open Space, Recreation, and Preservation	12
COMMUNITY DEVELOPMENT	16
Development	16
Rural	17
Conservation	19
Natural	20
APPENDICES	22
A. Physical Characteristics of Landscape Units	23

INTRODUCTION

The Elsie Jewell planning area is characterized by extensive areas in forest lands with some limited agricultural lands along the Nehalem River Valley. Residential development has occurred in various small pockets along the Nehalem River; with some commercial activity in Jewell and along U.S. Highway 26 by Elsie. The timber within this planning area has historically provided the economic base for employment.

The Clatsop County Comprehensive Plan for the Elsie Jewell planning area is in two parts: a County-wide Element and a Community Plan. The County-wide Element deals with state goals and programs of County-wide concerns such as the economy. The Community Plan is an amplification of many of the County-wide policies which address specific concerns of the area. The Community Plan also addresses items not covered in the County-wide Element because of an items uniqueness to this particular area.

Taken together, the Plans provide a guide for development - whether it be residential, commercial, industrial or recreational. The intent of the Plan is NOT to stop or limit "rural" growth but rather to direct growth into appropriate locations while preserving the quality of life in the area. In looking at appropriate locations for various types of development, consideration was given to the preservation of resource lands (agricultural or forest lands), level of public facilities and services available, the land's carrying capacity, and the different needs for various uses within the planning area.

INDEX TO MAPS AND FIGURES

	Page
Map 1. Landscape Units.	4
Map 2. Hazards.	10
Map 3. Open Space, Recreation and Preservation.	15
Map 4. Comprehensive Plan.	20a
Map 5. Zoning Map	21
Figure 1. Profiles of Landscape Units.	3

LANDSCAPE UNITS

INTRODUCTION

The basic idea of the landscape unit is that it reflects a set of characteristics which, taken together, constitutes a natural process. The soils, hydrology, wildlife, vegetation, and land forms are interrelated as a functional unit. The landscape units provide a framework for development that is based on the land's capability. Each piece of land is in a landscape unit. The landscape units which occur in the Elsie-Jewell planning area are Shorelands, Alluvial Lowlands, Alluvial Terraces, Coastal Range Foothills, Sedimentary Uplands and Basaltic Highlands. Figure 1 demonstrates the profile of the landscape units, while Map 1 shows their locations in the Elsie-Jewell planning area.

Further discussion on each landscape unit's capabilities and limitations can be found in the Elsie-Jewell Environmental Plan (1974). The Environmental Plan contains four elements: landscape units, critical hazards areas, an open space program, and priority resources areas. Each element performs a specific purpose in incorporating environmental data and policies into the Community Plan Element. The policies in the environmental plan are the basis and background for the policies in this section and other sections of this plan.

SHORELANDS

River, lakes and their shorelands are contained within this landscape unit. Within this planning area, it consists of the Nehalem and Necanicum Rivers and Lost Lake as well as many other smaller rivers, streams and tributaries.

SHORELANDS POLICIES

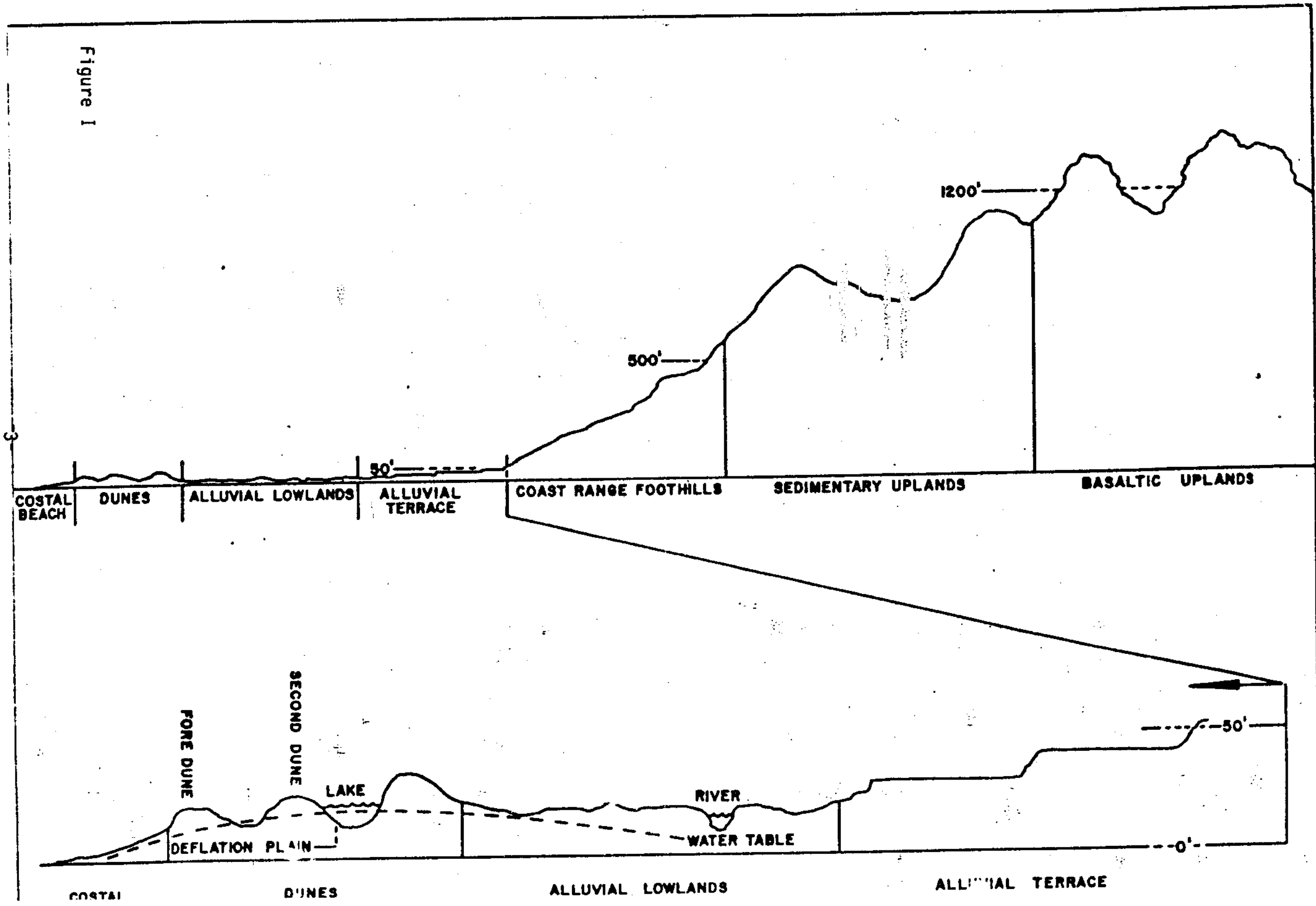
1. Culverts and other roadway or driveway improvements shall be installed in such a manner as not to impede the flow of the drainage way and not impede the passage of fish.

2. The shoreline setback for structures shall be based upon Department of Environmental Quality septic tank standards and the County Flood Standards.

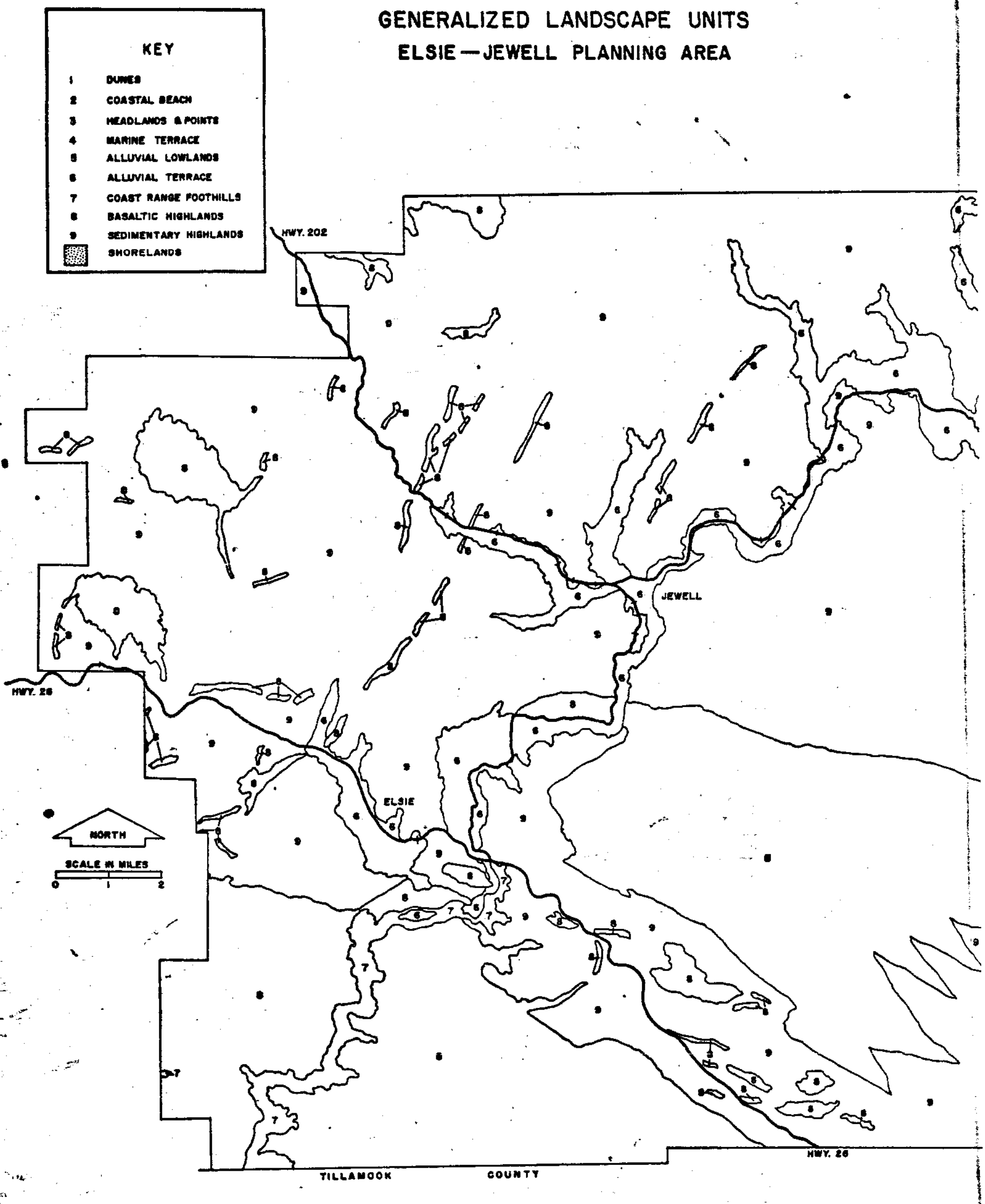
3. Withdrawals of water from streams shall not result in inadequate minimum flows in regard to fish habitat.

4. Draining and/or filling portions of lakes shall be discouraged.

Figure 1


1200'
500'
50'
COSTAL BEACH
DUNES
ALLUVIAL LOWLANDS
ALLUVIAL TERRACE
COAST RANGE FOOTHILLS
SEDIMENTARY UPLANDS
BASALTIC UPLANDS
FORE DUNE
SECOND DUNE
LAKE
RIVER
50'
DEFLATION PLAIN
WATER TABLE
0'
DUNES
ALLUVIAL LOWLANDS

GENERALIZED LANDSCAPE UNITS
ELSIE—JEWELL PLANNING AREA



ALLUVIAL LOWLANDS

Alluvial lowlands are plains occupying valley floors which result from the deposition of clay, silt, sand and gravel by water. The alluvial lowlands are limited to the upper Necanicum Valley along the Sunset Highway with their most eastern reaches at the Necanicum Junction.

ALLUVIAL LOWLANDS POLICIES

1. Development on peat and other compressible soils shall be discouraged. In those areas where development has already occurred on peat and other compressible soils, policies on Hazardous Soil in the County-wide Element shall apply.

2. Low density activities, such as agriculture, shall be preferred uses in the alluvial lowlands.

ALLUVIAL TERRACES

Alluvial terraces are relatively flat or gently sloping topographic surfaces which mark former valley floor levels. Stream down-cutting has caused the terraces to be higher than the present valley floor. The alluvial terrace deposits consist of gravel, sand, and finer material and are found primarily on the Nehalem River and along Beneke Creek, Fishhawk, and Humbug Creek.

ALLUVIAL TERRACES POLICY

The County should encourage development on this type of landscape unit due to the slight to moderate slopes and the moderately well drained soils.

COAST RANGE FOOTHILLS

Coast range foothills are low subsidiary hills on the edges of the coast range uplands. They range in elevation from 250 to 2000 feet, and are generally composed of sedimentary rocks. The coast range foothills are located mainly to the east and adjacent to the Necanicum River, as it flows behind Tillamook Head and along the lower Nehalem River.

COAST RANGE FOOTHILLS POLICY

The predominant land use on this landscape unit should be forestry and low density residential. This is due to the characteristics of soils in this landscape unit which have slide potential on slopes and are highly suited for timber production.

SEDIMENTARY UPLANDS

Sedimentary uplands consist of areas above the alluvial terraces, underlain chiefly by sedimentary rocks. Sedimentary uplands comprise almost the entire planning area, with the exception of several basaltic outcroppings. Sedimentary uplands are characteristically lower and or more gradual slope than basaltic highlands, with elevation above 500 feet.

SEDIMENTARY UPLANDS POLICY

The sedimentary uplands should be reserved primarily for timber production, water supply protection, and wildlife habitat.

BASALTIC HIGHLANDS

Basaltic highlands are underlain by igneous material. Most of the highlands are over 1200 feet in elevation although outcrops of basalt are also exposed at lower elevations.

Basaltic highlands in this planning area are found in the southeastern quarter almost exclusively with several basaltic outcroppings in the northwestern areas, which include Saddle Mountain and Humbug Mountain. Generally, basaltic highlands are less gradual in their terrain and are located at higher elevations.

BASALTIC HIGHLANDS POLICY

The highlands should be designated a resource unit, and uses other than woodland, wildlife habitat, recreation, and natural and mineral resources shall be discouraged.

NATURAL RESOURCES

FOREST LANDS

Ownership of forest land has changed to a considerable degree during the past three or four decades. Heavy cutting and the depression brought much of the privately owned lands into County hands during the 1950's due to foreclosures. Approximately 31% of Clatsop County lands are publicly owned while 48% are owned by the forest industry. The remaining 21% are owned by farmers and other small landowners.

Predominantly all forest lands in the planning area are either owned by Crown Zellerbach Corporation or the State of Oregon Forestry. However there are several small woodlot holdings along the Nehalem Highway.

AGRICULTURAL LANDS

Within this planning area, the best agricultural lands occur on the alluvium along the Nehalem River. Most of the agricultural lands are used for pasture and generally not suited for most types of development due to the floodplain or high groundwater. Throughout this part of the County farmers have had continual problems with elk and deer eating food supply for their livestock. Policies pertaining to forest and agricultural lands can be found in the County-wide Element of the Comprehensive Plan.

WATER RESOURCES

The major water resource is the Nehalem River, which traverses this area of the County. This river is used for both agriculture and recreation. Because of the sedimentary formations in this planning area, drilling for potable water is always a gamble. Often when water is found in a well it is brackish. Most drinking water comes from springs, creeks and streams.

The Nehalem and Salmonberry Rivers have been proposed by Oregon Student Public Interest Research Group as potential scenic waterways. Within the State of Oregon Parks Six-Year Plan, only the Nehalem has been identified as a scenic waterway. For either of these rivers to become designated as a scenic waterway, studies will have to be done by Parks and Recreation and public hearings will have to be held. Upon the concurrence of the State Water Resources Board, the Transportation Commission may recommend to the Governor that a given river or river segment be designated by the Commission's recommendation as a Scenic Waterway. The Governor, however, is not bound to confer designation.

The County has designated most of the land along these rivers as CONSERVATION Forest Lands, reflecting the predominant forest uses along most of the rivers. The CAC strongly and emphatically oppose any suggestion that the Nehalem River be designated a "Scenic River".

FISH AND WILDLIFE

The Nehalem River and many other streams and creeks provide excellent spawning habitats for anadromous fish. Anadromous fish such as salmon or steelhead hatch in upland freshwater streams, migrate to sea to spend a major part of their life, and return to the freshwater upland stream to spawn a new generation of fish. Important to these streams is the maintenance of water quality and low turbidity levels.

The sensitive areas for big game are those lands essential to the survival of deer and elk during the critical winter periods. Critical winter range has been identified predominantly along the Nehalem River Valley. Most of the critical winter range has been designated for forest uses, except for the existing farm and residential areas. A large percent of the planning area is forest land which creates a good habitat for big game in the mixed stands of mature forests, brush lands and clear lots.

The elk population over the years has increased due to the restrictions on hunting and the availability of food. With the increase in population, increasing conflicts have occurred between the elk and existing uses. The elk have robbed local farmers of food for their cattle, and have eaten small trees on forest lands for replanting. Lawns, gardens, flowers and shrubs in the existing residential areas as well have been damaged.

Grouse, mountain quail and pigeons are the most numerous and most hunted upland game birds in the County. While they are a product of the vast areas in forest lands, not a great deal is known about managing habitats to increase populations. None of the birds or animals within this planning area are considered endangered species at the present time.

FISH AND WILDLIFE POLICIES

1. If future elk wildlife management areas are needed within this planning area they shall be located in upland areas and not in lowlands where residential and farming have occurred.

RECOMMENDED ACTIONS

1. The State Wildlife Commission should allow more hunting of elk within this planning area so as to stabilize the population.

2. The State Wildlife Commission should pay for a greater percentage of cost of building fences to protect property from the elk.

CRITICAL HAZARD AREAS

FLOOD HAZARD

Stream flooding in the Elsie-Jewell planning area is much less severe than in the low, flat coastal and estuary areas. Flood areas along the Nehalem River Valley are limited due to the narrow width of the valley. Most of the flood prone areas within this planning area have been put into either an agricultural or forest lands zone, restricting the density of residential development.

SHORELINE EROSION

In most of the planning area, the natural shoreline has not been altered. Shoreline erosion is a natural process, most evident where rivers bend. The upper portions of the Nehalem and the lower portions of the Humbug River have moderate streambank erosion problems. Moderate erosion causes some loss of land or partial interference with aquatic habitats.

MASS MOVEMENT

Within this planning area, extensive areas are subject to mass movement, the majority of which is in the forested interior. Major areas of mass movement have a CONSERVATION designation providing for primarily forest uses and other low density uses, minimizing development in hazardous areas.

The various types of hazards within the planning area are shown on Map 2, while policies for hazards are contained in the County-wide Element of the Comprehensive Plan.

Map 2.

Hazards

(This map is located in the Seaside Rural Communnity Plan).

CULTURAL

HOUSING

Generally, the homes in the Elsie-Jewell planning area are older, containing the poorest rated housing in the unincorporated County. In 1977 and 1978, twenty percent of the building permits issued were to out of town owners.

Within this area, 21% of the housing is provided by mobile homes. Because of the economic attractiveness of mobile homes, this demand is expected to increase. Over the last 9 years, an average of 8 houses were built a year, while an average of 6 mobile homes were placed in the area per year.

The population increase in the Elsie-Jewell area is expected to grow about 1.6% per year. The population was 502 in 1970 and is estimated at 616 as of July 1, 1978. Projections based on this past trend show 837 by the year 2000. Based upon this projection, approximately 238 new housing units will be needed in the Elsie-Jewell area by the year 2000.

HOUSING POLICIES

1. The location of a mobile home on an individual parcel of land shall be allowed in all areas.

2. Mobile Home Parks shall not be an allowed use within the planning area.

PUBLIC FACILITIES AND SERVICES

Sewer Systems

Within this planning area, there is one community sewer system located at Fishhawk Lake. The system is a small private domestic sewer system with a design capacity of 270 hook-ups. Present usage is approximately 53 hook-ups, most of which are seasonal.

Community Water Systems

Most of the people in the Elsie-Jewell planning area obtain their water from wells or springs. There are, however, 4 community water systems in the area: Evergreen Acres Water System, Elderberry/Nehalem Water System, Elderberry Lodges, and Fishhawk Water Company. The Evergreen Acres Water System is providing service to 28 homes with a capacity of 60 additional hook-ups. The Elderberry/Nehalem Water Company currently has approximately

50 hook-ups with a capacity unknown at this time. The Elderberry Lodges Water System has had numerous complaints by users on the water quality and pressure of the system. The capacity of this water system is not known. Presently 53 homes are connected to Fishhawk Water Company which has a total capacity of 270 hook-ups.

Schools

The Jewell Consolidated School District covers the whole planning area, providing education from Kindergarten through 12th grade. Enrollment as of 1979 at the Jewell School was 115 with a design capacity of approximately 250 students.

Fire Protection

Fire protection is provided by Elsie-Vinemaple Rural Fire Protection District and State Forestry. With the formation of the District in 1978, fire insurance premiums for residences dropped approximately 20 to 30%. State Forestry provides fire protection to forest land only and does not have the training nor equipment to put out fires in burning structures.

FIRE PROTECTION POLICY

Clatsop County shall assist the people in the Jewell area in the formation of a rural fire protection district.

TRANSPORTATION

The automobile and truck are the predominant means of moving people and goods within this planing area. U.S. Highway 26 is one of the two major links between the Portland metropolitan area to the northern Oregon coast. The seasonal fluctuation on U.S. Highway 26 will vary as much as 68% from January to August. State Highway 53 and 202 and the Nehalem Highway have a much less variation in traffic with about a 28% fluctuation in usage. Although the County roads are narrow and winding, none of these roads are at capacity in this planning area.

OPEN SPACE, RECREATION, AND PRESERVATION

Open space exists through a wide variety of different land uses as shown by the following categories:

Categories	Examples
Resource Lands	Forest Lands
Recreation	Fishhawk Falls Park
Scenic/Buffer	Open space within a subdivision
Preservation	Elsie Park

Map #3 shows the location of the various types of open space within the planning area. The most dominant form of open space in this planning area is the extensive areas in forest lands.

Recreation

Recreation facilities for the public are provided at Saddle Mountain State Park, as well as at the four County parks (David Douglas, Elsie Park, Fishhawk Falls Park, Spruce Run Park) and sports facilities at the Jewell School. Private facilities exist at Sports Acres which has cabins and various types of sports activities available to members.

In examining the need for recreational vehicle parks within the planning area, it is felt they would be more appropriate in other parts of the County. The reason for this is the type of roads which exist in the planning area, water and septic tank limitations, and also conflicts between recreation vehicle parks and existing uses.

Preservation

The Clatsop County Historical Advisory Committee, under the direction of the Clatsop County Board of Commissioners, prepared a map of various historical sites within the County in 1976. This area of the County is rich in history. Predominately all of the historical sites in this planning area represent the occurence of a historical event and may be appropriate for historical signing as funds become available. Some of the local residents are interested in turning the Jamieson House at the Jewell Wildlife Meadows into a historical museum with snack bar and restroom facilities. Provisions have been made in the Plan for this should it occur.

Other aspects of preservation are the various Natural areas which play a crucial role in the rapidly changing landscape. Most important, perhaps, is that they serve as bench marks for assessing the extent of man's impact upon diverse land, lakes, rivers, estuary and coastal environments.

The Nature Conservancy through the Oregon Natural Heritage Program was commissioned by the State of Oregon to provide an inventory of potential natural areas, natural area needs, and programs to protect natural areas. Below is a list of potential natural areas inventoried within this planning area and how they are to be managed. Several of the areas identified need further research to better determine their location, boundaries, and consequences of alternative decisions.

Site	
David Douglas Park Elsie Park	These two parks are designated CONSERVATION and are zoned Open Space, Recreation and Parks which is not in conflict with the recommended use.
Four County Corners Walker Creek Old Growth Lost and Spruce Run Lakes Flat Iron Mountain McGregor Northrup Creek	All of these areas have been designated CONSERVATION Forest Lands. The conflict use occurs between Goal 4, Forest Lands, and Goal 5, Open Space, Scenic and Natural Resources in restricting forest uses and activities. Within Clatsop County the forest industry generated more economic activity than all other sectors of the economy combined. The areas proposed by the Nature Conservancy would take extensive areas of forest land out of timber production.

Nehalem River Fall Creek Falls	In both these areas, the State of Oregon Forestry Department is the predominant property owner. In the Fall Creek Falls area, 87 acres has been classified by the Forestry Department as scenic conservancy, while along the Nehalem River, 168 acres has been classified as scenic conservancy. In both these areas with the information available at this time, there is no conflict between Goal 4 and Goal 5.
Benecke Creek Jewell Wildlife Meadows	There are no conflicts between the CONSERVATION Forest Lands designation and the us in these areas.

Open Space, Recreation and Preservation Policies:

1. Recreational vehicle parks shall not be permitted within this planning area.

2. The use of identifying signs for historic and cultural landmarks shall be encouraged. The Clatsop County Historical Society shall be encouraged to assist in this project.

Open Space, Recreation and Preservation

Map 3.

COMMUNITY DEVELOPMENT

In the discussion of the Planning Process, a brief explanation was given on the Classification System (DEVELOPMENT, RURAL, CONSERVATION and NATURAL) to be used on the Comprehensive Plan Map. This section of the Plan goes into greater detail in describing the four designations, their objectives and policies pertaining to the designations. The four designations are shown on the Comprehensive Plan Map #4.

DEVELOPMENT

Areas designated DEVELOPMENT are areas with a combination of physical, biological, and social/economic characteristics which make them necessary and suitable for residential, commercial, or industrial development and includes those which can be adequate served by existing or planned urban services and facilities.

Areas within Urban Growth Boundaries and Rural Service Areas are included within this designation. There are no Urban Growth Boundary designations for this planning area.

Rural Service Area is an unincorporated area located some distance away from a city and contains residential densities similar to those found in cities. The size of Rural Service Areas is based upon many factors, some of which are: population projections, capacity of public facilities, and proximity to a city.

Fishhawk Lake Estates is an area which meets the criteria for a Rural Service Area (RSA). This area was developed in 1967 as a recreational community which currently has 15 permanent residences and 38 seasonal residences. A community sewer and water system, as well as roads, have been developed to provide for future housing.

Predominant Uses:

1. Medium to high density single family houses (less than 1 acre).
2. Multi-family housing (apartment, mobile home parks).
3. Offices, commercial facilities.
4. Industrial facilities (light/heavy).

Objectives:

1. To ensure optimum utilization of urban and urbanizable lands and to provide for an orderly and efficient transition from rural to urban land use.

2. To encourage development in this are to relieve the need for development in other areas.

3. To encourage the location of public and private facilities and services so that they do tend to attract residential development to locations inside DEVELOPMENT areas.

4. To avoid the extension of urban services (i.e. sewer systems) into outlying sparsely settled areas (1 acre or greater sites).

Rural Service Area Policies

1. The minimum building site in Rural Service Areas shall be 7,500 square feet in sewered areas and 18,000 square feet in unsewered areas. Smaller parcels legally existing at the time of adoption of this plan are grandfathered, the specific of which shall be handled in the Zoning Ordinance.

2. Changes in the Rural Service Area boundary shall be done only after the following factors are considered:

   a. there is demonstrated need to accommodate long range urban population growth requirements;

   b. there is a need for housing, employment opportunities, and livability;

   c. the change would provide an orderly and economic extension of public facilities and services;

   d. the change would allow for efficient land use and utility patterns within and on the fringe of the existing urban area;

   e. the environmental, energy, economic and social consequences of the proposed area.

RURAL

RURAL lands are those land outside of DEVELOPMENT areas which, due to their value for agriculture (Class I-IV soil types), low density residential uses, high intensity recreational uses, and non-renewable mineral and non-mineral resource uses should be protected from conversion to more intensive uses. Certain areas within this designation are suitable for long term agricultural use and should be protected by Exclusive Farm Use zoning. Rural subdivisions, major and minor partitions, and other uses served by few public services which satisfy a need that cannot be accommodated in urbanizable areas are also likely to occur within this designation.

Those areas designated RURAL range from floodplain areas to the bench lands along the various public roads in the planning area. Most of the floodplain areas are designated as Agricultural Lands on the Comprehensive Plan Map and will be zoned for Exclusive Farm Use. The remaining RURAL lands will be predominantly zoned for residential uses with some commercial and light industrial uses.

Within this planning area, there is approximately 50 acres in the Jewell area zoned for light industrial uses. The people in the area feel additional areas are needed in the future. In development the zoning, however, the Citizen Advisory Committee (CAC) and County were unable to identify additional properties for light industrial uses. The County will facilitate Comprehensive Plan and zone changes for light industrial proposals in appropriate areas, considering such items as their compatibility with the surrounding area.

Predominant Uses:

1. Farm use.
2. Low density residential (1 acre or larger).
3. Commercial (gas station, grocery store).
4. High intensity recreation (i.e. golf course).

Objectives:

1. To preserve the rural character of uplands and woodland areas, and maintain open spaces and opportunities along the shoreline for recreational uses compatible with low density residential activity.

2. To retain rural areas as sparse settlement, small farms or acreage homesites with hardly any public services.

3. To maintain the open spaces between various types of development so as to preserve the rural character of the area.

4. To provide for housing types (i.e. acreage homesites) which can not be accommodated in cities, Urban Growth Boundaries or Rural Service Areas.

Policies:

1. The minimum parcel size for building sites in RURAL areas shall be one (1) acre for areas with a community water system and two (2) acres for those areas without a community water system. Smaller parcels legally existing at the time of adoption of this Plan are grandfathered, the specifics of which shall be handled in the Zoning Ordinance.

2. The extent of the existing commercial zones are considered inadequate for the next twenty years. Additional commercial areas are needed along Highway 26 and shall be designated Highway Commercial.

3. When considering new commercial areas or expansion of existing commercially zoned land, the following standards shall be used:

   a. Adequate off-street parking shall be provided to prevent traffic congestion resulting from on-street parking.

   b. A buffer and screen shall be provided between commercial and residential uses.

   c. Signs shall be designed so as not to disturb from the surrounding area.

d. The size of neighborhood commercial uses shall be sized to serve every day personal needs of the surrounding rural population and generate little or no traffic from outside of the rural area.

e. Review by State and County road officials for safe access including adequate site distance.

CONSERVATION

CONSERVATION areas provide important resource or ecosystem support functions but because of their value for low-intensity recreation or sustained yield resource (i.e. forestry), or because of their unsuitability for development (i.e. hazard areas) should be designated for nonconsumptive uses. Nonconsumptive uses are those uses which can utilize resources on a sustained yield basis while minimally reducing opportunities for other future uses of the area's resources.

Predominantly all the lands designated CONSERVATION in this planning area are designated as forest lands and will be placed in one of the forest zones developed by the County. Saddle Mountain State Park, David Douglas Park, Elsie Park, Fishhawk Falls Park and Spruce Run Park are designated CONSERVATION and zoned for Open Spaee, Recreation and Parks.

Predominant Uses:

1. Forestry/forest processing.
2. Farming.
3. Parks and scenic areas.
4. Small woodlots.
5. Community watersheds.

Objectives:

1. To conserve and protect natural, scenic, historic, and cultural resources.

2. To develop for low-intensity uses which do not substantially degrade the existing character or interrupt the flow of natural resource use or recreational benefits.

3. To protect life and property in hazardous areas.

Policies

1. The overall densities for a building site in CONSERVATION forest areas shall be one (1) dwelling unit per 10 acres, one (1) dwelling unit per 20 acres, and one (1) dwelling unit per 38 acres. The designation of the various zones shall be determined upon:

   a. existing lot sizes;
   b. compatibility with forest uses;
   c. proximity to existing developed lands, and
   d. promitity to County and State roads and other public services.

NATURAL

A NATURAL area is defined as land and/or water units in which natural processes exist relatively undisturbed or can be restored to a nearly natural state. Natural areas include:

1. Native terrestrial, freshwater or marine ecosystems, e.g. a salt marsh or stand of old growth forest.

2. Areas containing significant biological, geologic, hydrologic, paleontologic, archeological or scenic features; e.g. a single fossil bed or waterfall.

3. Areas particularly valuable for plants and wildlife;

   a. as habitat for rare, endangered, peripheral, endemic or otherwise unique species;

   b. as exceptionally productive or diverse habitat;

   c. as vanishing habitat;

   d. as habitat crucial to a state in a species' life-style, e.g. spawing grounds, or wetlands along flyways.

Natural areas are important to the community as a whole, for they offer a unique aesthetic and educational experience, i.e. the opportunity to view, study and explore the array of natural elements witnessed by the early explorers of our region. They serve as the natural heritage to be passed on to future generations. Within this planning area, there are no areas designated NATURAL. The Preservation section of the Community Plan contains the discussion of the potential NATURAL areas inventoried by the Nature Conservancy.

Predominant Use:

1. Open space.
2. Scientific study.
3. Low intensity recreation (trails, nature observation).
4. Wildlife habitat.

Objectives:

1. To preserve, restore and protect these areas for scientific, research and education needs and for the resource and ecosystem support values and functions they provide.

Elsie Jewell Comprehensive Plan Map

Map 4.

ZONING

Map 5, "Zoning Map", will be used to implement the Community Plan Map and Policies.

Until the new zoning ordinance that prescribes standards and provisions of the various designations on the map are adopted, Map 5 will be used to determine allowed housing densities.

The existing zones and zoning ordinance shall apply except as modified by densities shown on Map 5 or when modified by specific policies in this Plan.

USE DESIGNATIONS SHOWN ON MAP 5	APPROPRIATE ZONING ORDINANCE #66-2 SECTIONS TO BE USED	
Industrial	M-1	4.090
Commercial	C-1 & C-2	4.070 & 4.080
Rural Residential	R-4 & GFF	4.040 & 4.060
Exclusive Farm Use (EFU)	EFU	4.130
Conservation	GFF	4.060
Development (RSA)	GFF	4.060

All overlay districts and provisions will continue to apply.

Natural designations, aquatic and shoreland designations shall be administered temporarily through use of the permitted use matrix contained on pages _____ of the Comprehensive Plan.

When provisions in the existing zoning ordinance conflict with the objectives and policies contained in the Elsie Jewell Plan, the policies in the Community Plan shall control in the interim before the existing zoning code is brought into compliance with this Plan.

APPENDICES

APPENDIX A

Physical Characteristics of Landscape Units

Landscape Unit[1]	Geologic Units[2]	
	Geologic Unit	Map Symbol
1. Alluvial Lowlands	Quaternary alluvium	qal
	Floodplain alluvium	
	tidal flat	tf
	silty clay	sc
	gravel	gr
	clay	cl
2. Sedimentaty Lowland (Coast Range Foothills 50 to 500 feet)	Upper Miocene Sandstone	tmus
	Astoria formation	tma
3. Basaltic Highlands (over 500 feet but incldes lower areas along rivers and coasts)	Miocene volcanic rocks	tmv
	Intrusive rocks	ti
	Eocene volcanic rock unit 2	tev_2
	Eocene volcanic rock unit 3	tev_3
4. Sedimentary Highlands (Uplands, over 50 feet)	Oligocene to Miocene sedimentary rocks	toms
	Miocene volcanic rocks	tmv
	Astoria formation	tma
	Intrusive rocks	tic
	Eocene sedimentary rocks undifferentiated	tesu
	Middle Miocene sandstone	tmms
5. Alluvial Terrace	Terrace alluvium	
	terrace silty clay	tsc
	terrace gravel	tgr
	peat	pt
	clay	cl
	quaternary terrace	qt
6. Marine Terrace	Marine terrace	Qmt
7. Coastal Beach	Beach sand	bs
8. Dunes	Stable dunes	sd
	peat	pt
9. Headlands and Points	Intrusive rocks (Tillamook Head)	ti
10. Estuary Wetlands	Floodplain Alluvium peat	tf
11. Freshwater Wetlands	Floodplain Alluvium	
	tidal flat	tf
	peat	pt
	Stable dunes	sd
	Beach sand (Trestle Bay)	bs
12. Water Bodies and Coastal and Stream Shorelands (lakes, reservoirs, and rivers)	Geologic units underlying water bodies are not described but are assumed to be the same as adjacent land (shorelands). For shoreland designations see appropriate landscape unit and geologic units associated with them.	

[1]Refer to the Environmental Plan of Southwest Clatsop County for the description and other characteristics of the landscape units.

[2]The various geologic units and their engineering characteristics are described in:

Environmental Geology of the Coastal Region of Tillamook and Clatsop Counties, Oregon, Oregon Department of Geology and Mineral Industries, Bulletin 74; and

Environmental Geology of Inland Tillamook and Clatsop Counties,

APPENDIX B.

TO BE DONE LATER

Open Space, Recreation and Preservation

Map #3

COMMUNITY DEVELOPMENT

In the discussion of the Planning Process, a brief explanation was given on the Classification System (DEVELOPMENT, RURAL, CONSERVATION and NATURAL) to be used on the Comprehensive Plan Map. This section of the Plan goes into greater detail in describing the four designations, their objectives and policies pertaining to the designations. The four designations are shown on Comprehensive Plan Map 4 .

DEVELOPMENT

Areas designated DEVELOPMENT are areas with a combination of physical, biological, and social/economic characteristics which make them necessary and suitable for residential, commercial, or industrial development and includes those which can be adequately served by existing or planned urban services and facilities.

Areas within Urban Growth Boundaries and Rural Service Areas are included in this designation. Lands within an Urban Growth Boundary are those determined to be necessary and suitable for future urban growth. These lands can be served by urban services and facilities, and are needed for the expansion of an urban area. The Urban Growth Boundaries are based upon the cities' population projections and needs for residential, commercial and industrial lands.

The Astoria Urban Growth Boundary in this planning area encompasses the land south of the City along Youngs Bay. The City at one time had proposed the Miles Crossing/Jeffers Garden area as part of their Urban Growth Boundary due to the need for flat land for future residential and industrial uses. This area was subsequently deleted due to objections of local residents. The City and County both agree that at such time as development is proposed in the Miles Crossing/Jeffers Garden area which would require urban services, the County should investigate the costs of extension of City services versus the formation of special districts .

A Rural Service Area is an unincorporated area located some distance away from a city which contains residential densities similar to those found in cities. The size of a Rural Service Area is based upon many factors, some of which are population projections, capacity of public facilities, and proximity to a city. The Old Navy Hospital and adjoining property is designated a Rural Service Area due to the presence of sewers, water and roads. Most of the property will be zoned for light undustrial use due to the limited areas with public facilities available for industrial uses. Depending upon the types of uses that locate within the Rural Service Area, there may be excess capacity in the sewer and other public facilities after meeting the needs of the uses in the present Rural Service Area boundary. In this case this plan contains a provision for expansion of the boundary to fully utilize the systems capacities.

Predominant Uses:

1. Medium to high density single family houses (less than ½ acre).
2. Multi-family housing (apartment, mobile home parks).
3. Offices, commercial facilities.
4. Industrial facilities (light/heavy).

Objectives:

1. To ensure optimum utilization of urban and urbanizable lands and to provide for an orderly and efficient transition from rural to urban land use.

2. To encourage development in this area to relieve the need for development in other areas.

3. To encourage the location of public and private facilities and services so that they do tend to attract residential development to locations inside DEVELOPMENT areas.

4. To avoid the extension of urban services (i.e. sewer systems) into outlying sparsely settled areas (1 acre or greater sites).

RURAL SERVICE AREA POLICIES:

1. The minimum building site for residential use in the Rural Service Area shall be 7,500 square feet in sewered areas and 18,000 square feet in unsewered areas.

2. Changes in the Rural Service Area boundary shall be done only after the following factors are considered:

   a. the demonstrated need to accommodate long range light industrial or residential growth requirements;

   b. the need for housing, employment opportunities, and livability;

   c. the importance of an orderly and economic provision for public facilities and services;

   d. the desirability for maximum efficiency of land uses within and on the fringe of the existing developed areas;

   e. the environmental, energy, economic, and social consequences.

3. Within the Light Industrial zone for the Old Navy Hospital standards shall be developed to prevent adverse impacts to the surrounding residential uses. Standards such as buffers between uses, limiting time of operation and controls on noise levels shouldbe used when industrial uses are proposed for this area.

RURAL

RURAL lands are those lands outside of DEVELOPMENT areas which, due to their value for agriculture (Class I-IV soil types), low density residential uses, high intensity recreational uses, and non-renewable mineral and non-mineral resource uses should be protected from conversion to more intensive uses. Certain areas within this designation are suitable for long term agricultural use and should be protected by Exclusive Farm Use zoning. Rural subdivisions, major and minor partitions, and other uses served by few public services which satisfy a need that cannot be accommodated in urbanizable areas are also likely to occur within this designation.

Those areas designated RURAL range from the diked tidelands in the Lewis and Clark and Youngs River Valleys to the bench lands along the various public roads in the planning area. Most of the diked tidelands are designated as Agricultural Lands on the Comprehensive Plan Map and will be zoned for Exclusive Farm Use. The remaining RURAL lands will be predominantly zoned for residential uses with commercial and light industrial uses occurring in the Miles Crossing area.

Predominant Uses:

1. Farm Use.
2. Low density residential (1 acre or larger).
3. Commercial (gas station, grocery store).
4. High intensity recreation (i.e. golf course).

Objectives:

1. To protect agricultural land.

2. To restrict intensive development on undeveloped shorelands.

3. To preserve the rural character of uplands and woodland areas, and maintain open spaces and opportunities along the shoreline for recreational uses compatible with low density residential activity.

4. To retain rural areas as sparse settlement, small farms or acreage homesites with hardly any public services.

5. To limit the intensity of residential development in order to prevent the gradual development of conditions which would require additional services or higher quality of existing services.

6. To maintain the open spaces between various types of development so as to preserve the rural character of the area.

7. To provide for housing types (i.e. acreage homesites) which cannot be accommodated in cities, Urban Growth Boundaries or Rural Service Areas.

RURAL POLICIES

1. The minimum parcel size for building sites in RURAL areas shall be one acre. Smaller parcels legally existing at the time of adoption of this Plan are grandfathered, the specifics of which shall be handled in the Zoning Ordinance.

2. New commercial zones shall only be considered if of a neighborhood type or if concentrated in and adjacent to existing well established business areas, in order to increase the patronage of these areas and to avoid dispersal of new commercial activities.

3. In recognition of the existing commercial uses along U.S. 101 in the Miles Crossing area, this area shall be designated for general commercial uses.

4. Neighborhood commercial zones allowing for such uses as a gas station or small grocerty store are needed in those areas remote from existing commercial areas. The existing commercial area at Olney shall be zoned for neighborhood commercial uses.

5. When considering new commercial areas or expansion of existing commercially zoned land the following standards shall be used:

   a. Adequate off-street parking shall be provided to prevent traffic congestion resulting from on-street parking.

   b. A buffer and screen shall be provided between commercial and residential uses.

   c. Signs shall be designed so as not to distract from the surrounding area.

   d. The size of neighborhood commercial uses shall be sized to serve every day personal needs of the surrounding rural population and generate little or no traffic from outside of the rural area.

   e. Review by State and County Road officials for safe access including adequate site distance.

CONSERVATION

A CONSERVATION designation will be used for lands which provide important resource or ecosystem support functions such as forest lands, coastal and stream shorelands, and state parks. The idea behind the CONSERVATION designation is to use land for low intensity uses (or on a sustained yield basis in forestry) which does not disrupt the resource and recreational value of the land.

Predominantly all the lands designated CONSERVATION in this planning area are designated as forest lands and will be placed on one of the forest zones development by the County. State and County parks, Astoria's watershed and Youngs River Falls have been designated CONSERVATION.

Predominant Uses:

1. Forestry/forest processing.
2. Small woodlots.
3. Parks/recreational uses.
4. Community watersheds.

Objectives:

1. To conserve the protect natural, scenic, historic, and cultural resources.

2. To develop for low intensity uses which do not substantially degrade the existing character or interrupt the flow of natural resource use or recreational benefits.

3. To protect life and property in hazardous areas.

CONSERVATION POLICIES

1. The overall densities for a building site in CONSERVATION forest lands shall be one dwelling unit per 10 acres, one dwelling unit per 20 acres, and one dwelling unit per 38 acres. The designation of the various zones will be determined upon:

   (a) existing lot sizes,
   (b) compatibility with forest uses,
   (c) proximity to existing developed lands, and
   (d) proximity to County and State roads and other public facilities.

2. The County shall encourage the identification, conservation, and protection of watersheds, fish and wildlife habitats, and areas of historical, cultural, and/or scientific importance. Forestry, recreational, and associated activities may be reviewed and restricted when such activities are found to be in conflict with the conservation and protection of such areas.

NATURAL

A NATURAL area is defined as land and/or water units in which natural processes exist relatively undisturbed or can be restored to a nearly natural state. Natural areas include:

1. Native terrestrial, freshwater or marine ecosystems, e.g. a salt marsh or stand of old growth forest.

2. Areas containing significant biological, geologic, hydrologic, paleontologic, archeological or scenic features; e.g. a single fossil bed or waterfall.

3. Areas particularly valuable for plants and wildlife;

   a. as habitat for rare, endangered, peripheral, endemic or otherwise unique species;

   b. as exceptionally productive or diverse habitat;

   c. as vanishing habitat;

   d. as habitat crucial to a stage in a species' lifestyle, e.g. spawning grounds, or wetlands along flyways.

Natural areas are important to the community as a whole, for they offer a unique aesthetic and educational experience, i.e. the opportunity to view, study and explore the array of natural elements witnessed by the early explorers of our region. They serve as the natural heritage to be passed on to future generations. Cooperage Slough, Russian Point, a large portion of Youngs Bay, Haven Island, Grant Island, Fry Island and the tide flats in Youngs River have been designated NATURAL.

Predominant Uses:

1. Open space.
2. Scientific study.
3. Low intensity recreation (trails, nature observation).
4. Wildlife habitat.

Objectives:

1. To preserve, restore and protect these areas for scientific, research and educational needs and for the resource and ecosystem support values and functions they provide.

Lewis & Clark, Youngs, and Wallooskee River Valleys

Comprehensive Plan Map

#4

ZONING

Map 5, "Zoning Map", will be used to implement the Community Plan Map and Policies.

Until the new zoning ordinance that prescribes standards and provisions of the various designations on the map are adopted, Map 5 will be used to determine allowed housing densities.

The existing zones and zoning ordinance shall apply except as modified by densities shown on Map 5 or when modified by specific policies in this Plan.

USE DESIGNATIONS SHOWN ON MAP 5	APPROPRIATE ZONING ORDINANCE #66-2 SECTIONS TO BE USED	
Industrial	M-1 & M-2	4.090 & 4.100
Commercial	C-1 & C-2	4.070 & 4.080
Rural Residential	R-1, R-2, R-3, R-A, & GFF	4.010, 4.020, 4.030 4,050 & 4.060
Exclusive Farm Use (EFU)	EFU	4.130
Conservation	R-A & GFF	4.050 & 4.060
Development (UGB, RSA)	R-1, R-2, R-3, R-A, C-2 & M-2	4.010, 4.020, 4.030 4.050, 4.080, 4.100

All overlay districts and provisions will continue to apply.

Natural designations, aquatic and shoreland designations shall be administered temporarily through use of the permitted use matrix contained on pages _____ of the Comprehensive Plan.

When provisions in the existing zoning ordinance conflict with the objectives and policies contained in the Lewis & Clark, Youngs and Wallooskee River Plan, the policies in the Community Plan shall control in the interim before the existing zoning code is brought into compliance with this Plan.

APPENDIX A

Physical Characteristics of Landscape Units

Landscape Unit[1]	Geologic Units[2]	
	Geologic Unit	Map Symbol
1. Alluvial Lowlands	Quaternary alluvium	qal
	Floodplain alluvium	
	tidal flat	tf
	silty clay	sc
	gravel	gr
	clay	cl
2. Sedimentaty Lowland (Coast Range Foothills 50 to 500 feet)	Upper Miocene Sandstone	tmus
	Astoria formation	tma
3. Basaltic Highlands (over 500 feet but incldes lower areas along rivers and coasts)	Miocene volcanic rocks	tmv
	Intrusive rocks	ti
	Eocene volcanic rock unit 2	tev_2
	Eocene volcanic rock unit 3	tev_3
4. Sedimentary Highlands (Uplands, over 50 feet)	Oligocene to Miocene sedimentary rocks	toms
	Miocene volcanic rocks	tmv
	Astoria formation	tma
	Intrusive rocks	tic
	Eocene sedimentary rocks undifferentiated	tesu
	Middle Miocene sandstone	tmms
5. Alluvial Terrace	Terrace alluvium	
	terrace silty clay	tsc
	terrace gravel	tgr
	peat	pt
	clay	cl
	quaternary terrace	qt
6. Marine Terrace	Marine terrace	Qmt
7. Coastal Beach	Beach sand	bs
8. Dunes	Stable dunes	sd
	peat	pt
9. Headlands and Points	Intrusive rocks (Tillamook Head)	ti
10. Estuary Wetlands	Floodplain Alluvium peat	tf
11. Freshwater Wetlands	Floodplain Alluvium	
	tidal flat	tf
	peat	pt
	Stable dunes	sd
	Beach sand (Trestle Bay)	bs
12. Water Bodies and Coastal and Stream Shorelands (lakes, reservoirs, and rivers)	Geologic units underlying water bodies are not described but are assumed to be the same as adjacent land (shorelands). For shoreland designations see appropriate landscape unit and geologic units associated with them.	

[1]Refer to the Environmental Plan of Southwest Clatsop County for the description and other characteristics of the landscape units.

[2]The various geologic units and their engineering characteristics are described in:

Environmental Geology of the Coastal Region of Tillamook and Clatsop Counties, Oregon, Oregon Department of Geology and Mineral Industries, bulletin 74; and

Environmental Geology of Inland Tillamook and Clatsop Counties,

EXHIBIT "F"

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103
July 23, 1980

TO: BOARD OF COMMISSIONERS

FROM: DEPARTMENT OF PLANNING AND DEVELOPMENT

RE: TEXT CHANGES TO THE ELSIE-JEWELL COMMUNITY PLAN

1. Full Plan Text, Page 2, Shorelands Policy 2:

   Remove: ~~"The shoreline setback for structures shall be based upon Department of Environmental Quality septic tank standards and the County Flood Standards."~~

   Newspaper, Page 4, Shorelands Policy 2:

2. Full Plan Text, Page 5, Coast Range Foothills Policy:

   "The predominant land use on this landscape unit should be forest ~~and low density residential~~. This is due to the characteristics of soils in this landscape unit which have slide potential on slopes and are highly suited for timber production."

   Newspaper, Page 6, Coast Range Foothills Policy:

3. Full Plan Text, Page 7:

   "Forest Lands

   Newspaper, Page 6:

   Ownership of forest land has changed to a considerable degree during the past three or four decades. Heavy cutting and the depression brought much of the privately owned lands into County hands during the 1950's due to foreclosures. Approximately ~~31%~~ 34% of Clatsop County lands are publicly owned while 48% 54% are owned by the forest industry. The remaining ~~21%~~ 12% are owned by farmers and other small landowners."

4. Full Plan Text, Page 8, 4th Paragraph:

   "Grouse, mountain quail and pigeons are the most numerous and most hunted upland game birds in the County. While they are a product of the vast areas in forest lands, not a great deal is known about managing habitats to increase populations. None of the birds or animals within this planning area are considered endangered species at the present time. The Southeast Environmental Plan and the Fish and Wildlife Habitat Protection Plan for Clatsop County contains additional background information."

   Newspaper does not contain this:

5. Full Plan Text, Page 8, Policy 2, 3, and 4:

   Newspaper, Page 7, Policy 2, 3, and 4, Fish and Wildlife:

"2. Clatsop County will cooperate with governmental agencies to conserve and protect identified fish and wildlife habitat.

3. Public and private land ownership preserves many habitat areas. There is limited regulatory power to assure that more living communities and animal species do not become rare and endangered species do not become rare and endangered in the future. Therefore new development should be designed and constructed so as to:

   a. maintain wherever possible a natural, vegetative buffer strip along wetlands and streams;

   b. minimize the alteration of land and vegetation; and

   c. preserve open space, including agricultural and forest lands.

4. Habitats of all species indicated as endangered, threatened or vulnerable shall be preserved. Nesting sites of endangered bird species shall be protected and buffered from conflicting uses."

6. Full Plan Text, Page 8, Recommended Actions:

   Newspaper, Page 7, Recommended Actions:

"~~1.--The State Wildlife Commission should allow more hunting of elk within this planning area so as to stabilize the population.~~

~~2.--The State Wildlife Commission should pay for a greater percentage of cost of building fences to protect property from the elk.~~"

7. Full Plan Text, Page 13, Text:

   Newspaper, Page 9, Text:

"David Douglas Park
Elsie Park
Saddle Mountain Park

The ~~two~~ three parks are designated CONSERVATION and ~~are zoned~~ will be placed in the Open Space, Recreation and Parks Zone which is not in conflict with the recommended uses.

Benecke Creek

This area is managed by the State Fish and Wildlife Commission for elk wintering range. The area has been designated CONSERVATION Forest Lands and will be placed in forest zones. Conflicts occur here and at the Jewell Wildlife Neadows between the elk and farm and forest uses.

7. (Continued): Jewell Wildlife Meadows

A wildlife habitat for elk, this area has been designated CONSERVATION and will be placed in the Open Space, Recreation, and Parks zone. Due to the conflicts with the elk, new or expansion of existing wildlife management areas will be a review use."

8. Full Plan Text, Page 13, Second Paragraph:

Newspaper, Page 9, Recreation:

~~"In examining the need for recreational vehicle parks within the planning area, it is felt they would be more appropriate in other parts of the County. The reason for this is the type of roads which exist in the planning area, water and septic tank limitations and also the conflict between recreation vehicle parks and existing uses."~~

9. Full Plan Text, Page 14, Policy 1:

Newspaper, Page 9, Policy 1:

~~"Recreational vehicle parks shall not be permitted within this planning area."~~

10. Full Plan Text, Page 18, Policy 1:

Newspaper, Page 11, Rural Policy 1:

~~"The minimum parcel size for building sites in RURAL areas shall be one (1) acre for areas with a community water system and two (2) acres for those areas without a community water system. Smaller parcels legally existing at the time of adoption of this Plan are grandfathered, the specifics of which shall be handled in the Zoning Ordinance."~~

"Rural residential lot sizes shall be based upon the public facilities available, compatibility with surrounding uses, and land carrying capacity. Generally those areas within a fire protection district and community water system should be zoned with a minimum lot size of one (1) acre, while other areas with only a fire ~~protection~~ district or community water system should be zoned with a minimum lot size of two (2) acres, and those RURAL residential areas without facilities should be zoned with a minimum lot size of five (5) acres. Smaller parcels legally existing at the time of adoption of this Plan are grandfathered, the specifics of which shall be handled in the Zoning Ordinance."

11. Full Plan Text, Page 18, Policy 2:

Newspaper, Page 11, RURAL Policy 2:

~~"The extent of the existing commercial zones are considered inadequate for the next 20 years. Additional commercial areas are needed along Highway 26 and shall be designated Highway Commercial.~~

In order to avoid dispersal of commercial activities, new commercial zones shall only be considered if of a neighborhood type or are concentrated in and adjacent to existing well-established business areas."

----denotes deletion _____denotes addition

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 1

Citizen Involvement

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

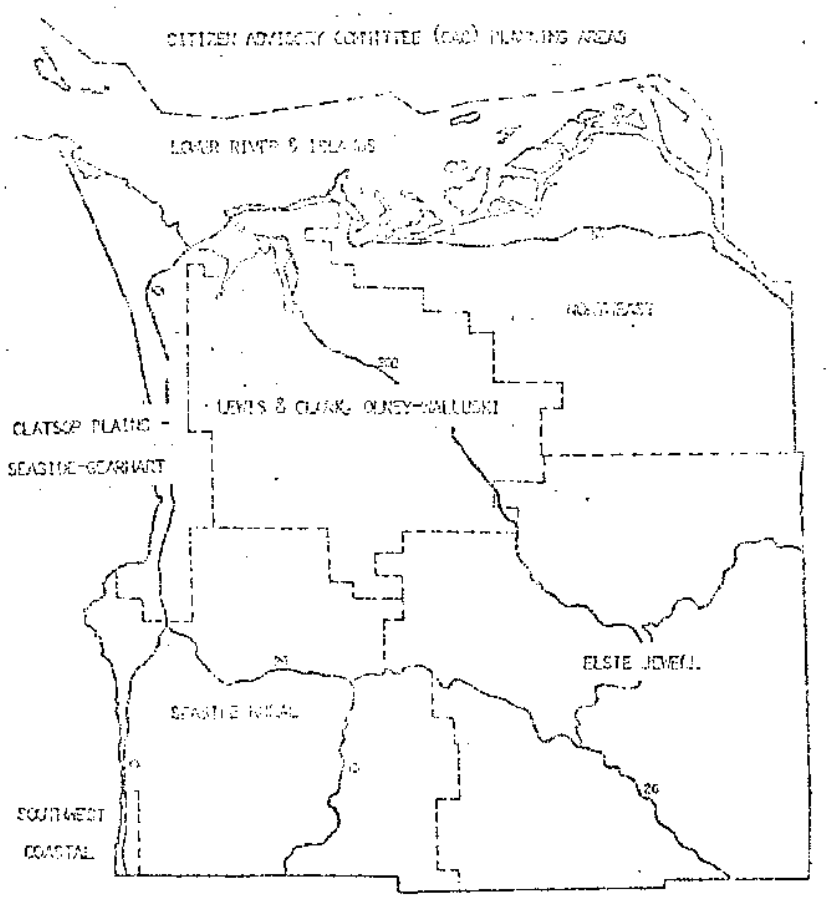
INTRODUCTION

Citizen participation is desirable in many areas of governmental activity. In the planning process, where governmental policies are being established, citizen participation is not only desirable but essential. The Land Conservation and Development Commission (LCDC) Citizen Involvement Goal #1 requires the opportunity for citizens to be involved in the planning process. In the preparation of the Clatsop County Comprehensive Plan, citizens participated in all phases of the planning process.

BASIC FINDINGS

A strong citizen involvement program was felt to be essential to the success of the Clatsop County planning program. In 1972, an attitude survey was conducted of various interest groups and selected individuals within the County. Two years later, with the assistance of Oregon State University Extension Service, a Citizens Advisory Committee was developed for the Clatsop Plains. Subsequently other Citizen Advisory Committees evolved throughout the rest of the County. (see Figure 1).

Figure 1.



The County now has six Citizen Advisory Committees which together with the planning staff developed the various community plans, as well as providing guidance and recommendations on planning issues. In developing the community plans, the Citizen Advisory Committees had several area-wide

public meetings in addition to the regular Citizen Advisory Committee meetings to obtain resident's views concerning development in their area. From this and other input, the Citizen Advisory Committees developed their community plans which the County mailed to property owners in the form of a tabloid containing maps and policies of the proposed designations, and hearing dates. The Planning Commission and Board of Commissioners each had public hearings in the various planning areas with additional hearings at the courthouse. Changes made in the community plans and other sections of the comprehensive plan were made available in the Department of Planning and Development and covered in the local papers.

The Citizen Advisory Committees are intended to function continuously, beyond Plan adoption, as a forum to provide for community input to the Planning Commission and Board of Commissioners on land use matters and related social and economic development issues. In recognition of the necessity and value of participation of the citizenry in the local government decision making process, Clatsop County adopts the following policies:

GOAL

To have an ongoing Citizen Involvement Program consisting of areawide Citizens Advisory Committees, which provide a method of communication between citizens, administrative departments, Planning Commission, and the Board of County Commissioners.

POLICIES

1. The citizen involvement program shall involve a cross-section of affected citizens in all phases of the planning process. As a component, the program for citizen involvement shall include an officially recognized citizen advisory committee or committees broadly representative of geographic areas and interests related to land use and land use decisions. Citizen advisory committee members shall be selected by an open, well-publicized public process.

2. The Citizen Advisory Committees shall hold their meetings in such a way that the public is notified in advance and given the opportunity to attend and participate in a meaningful fashion.

3. The Board of Commissioners, through the Planning Department, should provide adequate and reasonable financial support, along with technical assistance to the Citizen Advisory Committees.

4. Citizens shall be provided the opportunity to be involved in the phases of the planning process as set forth and defined in the goals and guidelines for Land Use Planning, including Preparation of Plans and Implementation Measures, Plan Content, Plan Adoption, Minor Changes and Major Revisions in the Plan and Implementation Measures.

5. Clatsop County shall encourage organizations and agencies of local, state and federal government and special districts to participate in the planning process.

6. Clatsop County shall use news media, mailings, meetings, and other locally available means to communicate planning information to citizens and governmental agencies.

7. Clatsop County shall establish and maintain effective means of communication between decision-makers and those citizens involved in the Citizen Involvement Program. It shall ensure that ideas and recommendations submitted through the Citizen Involvement Program will receive a response from decision-makers.

8. Notices of public hearings on major plan revisions should be publicized at least 30 days prior to the hearing.

9. Public notices should also be sent to affected residents concerning zone and comprehensive plan changes, conditional uses, subdivisions, and planned developments.

RECOMMENDED ACTION:

At the first update Clatsop County should document its citizen involvement efforts. This should minimally include: (a) listing those people, past and present, who have participated in the development of the plan; and (b) totalling the effort made by Clatsop County government.

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 3

Agricultural Lands

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

Introduction

Farming in Clatsop County has declined in the last 15-30 years and the future does not look particularly bright.

Small farm sizes interspersed with rural tracts, difficult terrain, a wet climate, and competition from other land uses all work against the consolidation of large, efficient farm units which are characteristic of other areas of the state where agriculture is thriving. As pressures for land for other uses increase, and the off-the-farm employment becomes more attractive, it is probable that farm acreage and the number of farms will decline below the present level. However, the pattern of small farms, producing a low income stream, with the operator working in other employment for part of the year, is likely to continue. This compliments the seasonal employment cycles of some of the county's industries and provides an appealing way of life for some people.

FINDINGS

1. Clatsop County's total acreage in farmland continues to be a very small percentage of the State and the regional farmland. Also, the County's acreage in farmland is a small percentage (5.1%) of its own total land area.

2. The average farm size in Clatsop County as of 1974 is 122 acres.

3. The number of farms in the County has declined to about one-quarter of what existed in 1949.

4. The total acreage in agriculture has declined nearly 50% since 1949.

5. Average farm size, however, has increased nearly 50% since 1949.

6. A rapid drop has occurred in the number of small farms consisting of 10-49 acres.

7. The majority of farms are owned by older, long-time residents.

8. Approximately two-thirds (2/3) of all farms are operated on a part-time basis

9. The economic importance of farming in the County is minor compared to other sectors. Farmers here must absorb additional transportation costs to get local products to distant markets, primarily to Portland.

10. There are no agricultural processing enterprises in the County.

11. The small scale of farming also supports very few farm related businesses. This has led to increased costs to farmers for farm equipment, supplies, and services.

12. There are 79,850 acres of Class I-IV soils in the County comprising 14.8% of the total land area. There are no Class I soils due to climatic limitations. Over 90% of the total land area is forest lands including the majority of the areas having Class I-IV soils.

13. A combined climatic condition of heavy precipitation and a lack of sunshine including restraints due to shallow soils and lack of irrigation in the County seriously hampers farming because it limits the diversity of agriculture in the County and shortens the growing season. Elk damage also hampers farming efforts and increases costs.

14. Clatsop County does not have a diverse agricultural base.

15. While the mainstays of agriculture have experienced a slight increase in total farm sales, some products are gradually disappearing.

16. The increase in farm expenses spurred by the skyrocketing cost of feed and fuel has decreased profits and cause uncertainty in farming in the County.

GOAL

To preserve and maintain agricultural lands.

POLICIES

1. The County shall provide areas for the continued practice of agriculture and permit the establishment of only those new uses which are compatible with agriculture activities.

2. Existing farming communities which constitute the mainstay of the agricultural economy in the County shall be preserved by Exclusive Farm Use Zoning.

3. The County shall encourage the consolidation of EFU land into large efficient farm units.

4. All divisions of EFU land shall be reviewed by the County for compatibility with the Agricultural Goals of the State and County policies.

5. Non-farm uses permitted on EFU land shall be minimized to allow for maximum agricultural productivity.

6. Agricultural land which also meets the criteria for Forest land and which is primarily utilized for livestock grazing or forestry in sufficient parcel size, shall be conserved for forest uses.

7. The County shall encourage the division of underutilized agriculture land into small tracts to maximize the potential for part-time hobby farms where large farms are impractical or where the area is determined to be committed to other uses.

8. The County recognizes that there is an increasing problem with elk herds on agricultural lands. In order to continue the productivity of the County's agricultural lands, the County will do the following:

   a. Wildlife refuges and game management areas shall be limited.

      1. Existing wildlife refuges shall be zoned for Open Space, Parks, and Recreation.

      2. New proposals shall require a zone change and an assessment of public need and impacts of establishing additional wildlife refuges or game management areas adjacent to agricultural activities.

   b. The State Wildlife Commission shall be officially requested to resolve the existing adverse impacts on agricultural lands associated with elk, including but not limited to one or more of the following measures:

      1. revision of hunting laws to sustained management levels.
      2. reduce the elk population in Clatsop County
      3. indemnify the owners for damage on their property resulting from elk.
      4. pay for and install adequate fencing

EXHIBIT "G"

COUNTY-WIDE ELEMENT
and Background Report

Goal 5

Rock and Mineral Resources[1]

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

[1]Taken from A Plan for Land and Water Use, Clatsop County, Oregon. Phase I, 1973. by Skidmore, Owings and Merrill. Revised materials were completed by Gail Hochhalter, Clatsop County Department of Planning and Development, 1980.

According to Bulletin No. 74, published in 1972 by the Oregon Department of Geology and Mineral Industries (DOGMI), the major mineral resources of Clatsop County, currently being utilized, are rock and aggregate materials for construction purposes. There are 19 major sources of rock and aggregate materils of which only two are gravel pits, one of which is abandoned. (See list in Appendix). The largest source of gravel was the Big Creek gravel pit, but the quantity of rock which was produced from that source created some environmental problems. The report also states that two commercial firms provide crushed rock: Sunset Crushed Rock at Astoria, and Howard Johnson and Sons at Seaside. Several other quarries are also available to supply rock to the County Road Department and the State Highway Department. (See Map __).

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

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

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

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

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

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

Other mineral resources in Clatsop County include a relatively high quality clay deposit situated at a site one-half mile west of U.S. Highway 101, two miles south of Seaside. Owing to the high content of alkalies, the clay is best suited for pottery and structural wares rather than refractories. Another mineral resource is a black sand deposit,

located near the community of Hammond, which measures approximately 1,100 feet in length and averages 300 feet in width and parallels the south bank of the Columbia River. Smaller deposits of black sands are also present at Clatsop Spit and Sand Island. The black sands consist primarily of magnetite, ilmenite, zircon and rutile and are considered potential future sources of iron and titanium.

Another potential resource in Clatsop County is the large deposits of peat which occur in the wetland area east of Clatsop Plains, extending from north of Seaside to the Columbia River. Although peat is widely used as a soil conditioner and as a horticulture commodity, the industry is still in its infancy, particularly in Oregon. Commercial development of the peat resource merits investigation.

In estimating future needs for Clatsop County, the DOGMI Report stated that the 1970 per capita use of aggregates amounted to 7½ tons per person and that production for the year 1970 was 210,000 tons. If the per capita use of aggregate continues at that amount, it is estimated by the department that the annual production will rise to approximately 238,000 tons and that this would amount to, over the period 1970 to 1985, about 3,000,000 tons. The report states that the present quarries, although large, are limited in the amount of rock which can be produced. It is estimated, according to their projections, that these quarries will be able to produce only about one-half to two-thirds of the quantities needed in the County by 1985. In order to provide aggregate, additional quarries of large size will have to be developed. It is likely that gravel also will have to be imported by barge from the upper Columbia River or from other sources outside the state. Existing rock and aggregate sources, particularly those which are close to a major area of potential new construction, should be kept available for further use because the rock and aggregate industry is vitally needed for the growth of an expanding community.

GOAL

To conserve and protect rock and mineral resources.

POLICIES

1. Mining and mineral extraction should be permitted where it is found than an economic deposit of material exists.

2. Mining activities in view of the major highways should be screened by an appropriate buffer of trees.

3. Mining, dredging, or removal of gravel or similar materials from streams and other surface water shall be strictly controlled to prevent adverse alteration to flow characteristics, siltation and pollution, and destruction or disruption of spawning areas.

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

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

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

APPENDIX A

LIST OF SAND AND GRAVEL AND
CRUSHED STONE OPERATORS IN CLATSOP COUNTY

Sand and Gravel

Sunset Crushed Rock
Clatsop Airport
Astoria, Oregon 97103

Johnson & Sons Construction
850 10th Ave.
Seaside, Oregon 97138

Clatsop County Road Department
Astoria, Oregon 97103

Astoria City Works Department
Astoria, Oregon 97103

Stone

Oregon Portland Cement Co.
111 SE Madison
Portland, Oregon 97214

Johnson & Sons Construction
850 10th Ave.
Seaside, Oregon 97138

W & W Logging
P.O. Box 948
Astoria, Oregon 97103

Bud Darling
Box 475 Hamlet Rt.
Seaside, Oregon 97138

Robert McEwan
P.O. Box 241
Gearhart, Oregon 97138

Crown Zellerbach Corp.
P.O. Box 998
Seaside, Oregon 97138

Rock Quarries and Gravel Pits

The quarries are estimated to contain 100,000 cubic yards or more of rock. The gravel pits, although not of 100,000 cubic yard volume, gain that through accretion during a period of years.

Clatsop County

* Larson Hill Agglomerate Prospect: SE¼NW¼ sec. 35, T. 8 N., R. 8 W.
Quantity - estimated 500,000 cubic yards
Ownership - private

* Bear Creek Quarry no. 2 (Svensen Quarry): NW¼SE¼ sec. 35, T. 8 N., R. 8 W.
Quantity - estimated 100,000 cubic yards
Ownership - private

* Tongue Point Quarries: NW¼NE¼ sec. 2, T. 8 N., R. 9 W.
Quantity - estimated 10,000,000 cubic yards
Ownership - Federal

* Sunset Crushed Rock Quarry: SE¼NE¼ sec. 17, T. 8 N., R. 9 W.
Quantity - large
Ownership - private

* John Day Creek Quarry Prospect: SW¼SW¼ sec. 6, T. 7 N., R. 7 W.
Quantity - estimated 175,000 cubic yards
Ownership - private, city

(Quarry) : NE¼NE¼ sec. 13, T. 7 N., R. 9 W.
Quantity - large
Ownership - county

(Quarry) : NE¼NE¼ sec. 13, T. 7 N., R. 9 W.
Quantity - large
Ownership - state

* Youngs River Falls Quarry: SE¼SW¼ sec. 22, T. 7 N., R. 9 W.
Quantity - large
Ownership - private

(Quarry) : SW¼NE¼ sec. 31, T. 7 N., R. 9 W.
Quantity - large
Ownership -

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*Laboratory rock analyses data are listed in Appendix B

* River Bend Sand and Gravel Co. Gravel Pit (Abandoned): SW¼SE¼ sec. 3, T. 6 N., R. 10 W.
Quantity - large
Ownership - private

(Quarry) : SW¼SE¼ sec. 33, T. 6 N., R. 10 W.
Quantity - large
Ownership -

(Quarry) : SE¼SE¼ sec. 17, T. 5 N., R. 9 W.
Quantity - large
Ownership -

(Quarry) : NE¼SE¼ sec. 23, T. 5 N., R. 9 W.
Quantity - large
Ownership -

(Quarry) : NE¼NW¼ sec. 30, T. 5 N., R. 9 W.
Quantity - large
Ownership -

(Quarry) : NE¼NE¼ sec. 4, T. 5 N., R. 10 W.
Quantity - large
Ownership -

* Howard Johnson and Sons Quarry: SE¼NE¼ sec. 4, T. 5 N., R. 10 W.
Quantity -
Ownership -

* West Pit Quarry: NE¼NW¼ sec. 4, T. 5 N., R. 10 W.
Quantity -
Ownership - private

* Circle Creek Quarry: NW¼SE¼ sec. 9, T. 5 N., R. 10 W.
Quantity -
Ownership - private (Crown Zellerbach)

Laboratory Data for Quarry and Gravel Pits

Name	Type of Material	Lab Number	Abrasion Percent Loss*	Specific Gravity	Na_2SO_4 Percent Loss**	Asphalt Stripping Test***	Degradation (Hgt., in.)	Remarks
				Clatsop County				
Larson Hill Agglomerate Prospect	Basalt rock	817977	64.0	2.76	77.0	---	40.20% 7.1 in.	Agglomerate - fill use only Estimated 500,000 cu. yds.
Bear Creek Quarry no. 2 (Svensen Quarry)	Basalt rock	725208	12.7	2.88	0.4	95+	16.37% 0.7 in.	Excellent quality dice rock with little weathering.
Tongue Point Quarries	Basalt rock	725210	13.6	2.85	0.2	95-	13.19% 0.6 in.	Excellent hard rock, abundant plant and stockpiling space.
Sunset Crushed Rock Quarry	Basalt rock	917456	15.12	2.93	---	---	22.0% 1.5 in.	
John Day Creek Quarry Prospect	Basalt rock	742971	16.3	2.94	0.2	95+	21.88% 1.0 in.	Hard, loosely jointed rock, ample plant and stockpile room
Youngs River Falls Quarry	Basalt rock	530735	17.2	2.95	0.7	---	---	
River Bend Sand and Gravel	Gravel	549531	14.5	2.92	---	---	---	Pit abandoned - used for stockpile
Howard Johnson & Sons	Basalt	127724	14.0	---	1.0	---	---	Commercial quarry
West Pit Quarry	Basalt	240653	14.5	---	---	---	---	Crown Zellerbach
Circle Creek Quarry	Basalt rock	877243	10.2	2.93	0.3	---	14.8% 1.1 in.	Crown Zellerbach

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 5

Air, Water and Land Resources Quality

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

INTRODUCTION

Clatsop County is fortunate in that it generally has clean air and water. The quality of the County's environment is a factor that yearly draws many visitors to the area and also contributes greatly to the quality of life of its residents.

BASIC FINDINGS

Air Quality

The small population, strong year round ocean winds and large amounts of forest lands help to mitigate and remove what localized air quality problems exist in Clatsop County during most of the year. The major point sources of air pollution in the County are the Wauna paper mill and the Astoria plywood mill, both of which are meeting the requirements of their Air Contaminant Discharge Permits. The Wauna mill has installed air pollution control equipment which is removing an estimated 90-95% of its air contaminants.

DEQ air quality officials do not feel that there are significant air pollution problems in Clatsop County. Air Contaminant Discharge Permits are monitored on a regular basis by the State, and the combination of pollution control equipment and the wind in the area mitigate against the need for additional controls. Several major sources of air pollution will be eliminated when the County closes the remaining burning dumps after approval of a new landfill site.

Under EPA and DEQ regulations some air quality deterioration through industrial development could take place in Clatsop County without exceeding national air quality standards.

Water Quality

Because of its coastal location, high rainfall and presence of the Coast Range Mountains, Clatsop County is rich in water resources. Besides the rivers (including the Columbia River--largest river in western North America), streams, creeks and lakes, there are two known aquifer areas--Clatsop Plains and Gnat Creek aquifers.

Pollution sources in Clatsop County's streams and rivers come from point (direct sources such as sewage outfalls) and non-point (indirect sources such as sedimentation) sources. Point sources require discharge permits and are closely monitored by the Department of Environmental Quality(DEQ) and Environmental Protection Agency (EPA). Non-point sources are regulated by DEQ under the 208 Program. This program contains a statewide assessment of the location, type and severity of water quality problems including streambank erosion, sedimentation, excessive debris, water withdrawal, elevated water temperature and nuisance algae. A complete ranking of the above problems indicated that the Nehalem River has the greatest amount of

water quality problems in Clatsop County. The ranking system was arbitrary but was designed to indicate relative problem areas within a region or county.

Since about 86% of the land area of Clatsop County is forest land, timber management has a significant effect on water quality. The Oregon Forest Practices Act and rules have been designated the best management practices to control forestry-related water quality problems. The County has no local control over the enforcement of the Forest Practices Act.

Possible sites to pollution of the Clatsop Plains aquifer has prompted the County, in conjunction with Warrenton, Hammond and Gearhart, to study and monitor the quality of the groundwater under the 208 Program.

A comparison of existing water rights with average monthly stream flows on most of the major rivers and streams in the County shows that water rights exceed minimum recommended stream flows for aquatic life. No appropriations of water except for human consumption, livestock consumption and water legally released from storage should be granted by a state agency when the average stream flow is less than that sufficient to support aquatic life.

Noise Control

The most probable future noise control problems in Clatsop County would be due to conflicts between noise sensitive properties and noisy industrial users, noise from major arterials and noise conflicts created by airports. In order to minimize these conflicts, noise considerations can be used when designating new industrial zoned land. In addition, performance standards for noise can be used in approving new commercial and industrial uses to minimize any conflicts with surrounding noise sensitive properties. The State Highway Department should be encouraged to use noise pollution considerations when re-aligning, improving, or building new highways.

The Seaside airport and its clear zones are located in the City of Seaside's and Gearhart's Urban Growth Boundaries. Appropriate zoning limiting conflicting uses will be developed during the UGB adoption process.

Areas surrounding the Clatsop County airport that are or in the future may be exposed to an aviation noise environment of 55 Ldn have been planned and zoned for industrial, exclusive farm use, and low density residential use (in areas of existing residential use). The current large amounts of open space and agricultural, industrial, and low density residential zoning should result in compatibility with noise standards.

POLICIES

1. The County shall encourage the maintenance of a high quality of air, water and land through the following actions:

   (a) encouraging concentration of urban development inside Urban Growth Boundaries,

   (b) encouraging maintenance and improvement of pollution control facilities,

(c) cooperating with the State Highway Department to provide an efficient transportation system. Methods to reduce congestion and air pollution on Marine Drive/Commercial Street should be explored.

(d) encouraging indigenous, clean industries such as fishing, boat building, tourism, and forest products utilization and

(e) encouraging development of resource recovery mechanisms such as recycling centers and wood waste processing.

2. The County Planning Department shall work with the Department of Environmental Quality (DEQ) to monitor and keep its environmental data base current including information on air quality, surface and groundwater quality, and land quality including waste disposal and erosion problems.

3. The cumulative effect of development on the County's environment should be monitored and, where appropriate, regulated. When evaluating proposals that would affect the quality of the air, water or land in the County, consideration should be given to the impact on other resources important to the County's economy such as marine resource habitat and recreational and aesthetic resources important to the tourist industry.

4. The County shall continue its efforts to find an acceptable regional solid waste disposal site or an acceptable alternative (i.e recycling, electricity generation).

5. Recovery of wood wastes, rather than slash burning, shall be encouraged as a means of reducing air and water pollution, improving the economy, and for producing energy.

6. Upon completion of the Clatsop Plains Groundwater Study, the County shall reevaluate the Clatsop Plains Community Plan to determine whether existing policies and standards are adequate to protect water quality in the aquifer, lakes and streams. Consideration shall be given to protection of the lakes from further degradation (eutrophication), and possible remedial actions to improve water quality.

7. The County shall work to maintain the quality of its estuarine waters through participation in the regional Columbia River estuary planning process.

8. The County shall cooperate with DEQ, State Forestry Department, State Transportation Department and other agencies in implementing best management practices to reduce non-point pollution.

9. The County shall recommend that state agencies regulate the issuance of water rights so as to insure that the total water rights of a stream bed do not exceed the minimum stream flow.

10. Subdivisions adjacent to major arterials shall address the reduction of noise impacts in their site plans.

11. Performance standards for noise will be considered for inclusion as standards in the County's industrial-commercial zones.

12. The District Conservationist shall be used for technical evaluation of all development activities (including subdivisions and major partitions) that could create erosion and sedimentation problems with his/her recommendations incorporated into planning approvals.

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 7

Areas Subject to Natural Disasters and Hazards

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

INTRODUCTION

In considering the suitability of various land for development, physical characteristics that are hazardous or limiting must be analysed. Safeguards need to be taken in these areas to minimize the loss of life and property and avoid expensive and burdensome corrective measures.

The following natural hazards are of concern in Clatsop County.

1. Stream and Normal Ocean Flooding, Tsunamis
2. Mass Movement and Earthquakes,
3. High Groundwater and Compressible Soils, and
4. Erosion and Deposition.

Stream and Normal Ocean Flooding, Tsunamis

BASIC FINDINGS

Clatsop County experiences flooding from three different sources: stream flooding, ocean flooding and tsunamis. Flooding is most severe in the low lying coastal and estuarys of the County such as the Necanicum Estuary where high river flows from storms can combine with ocean flooding from high tides. High tides hold back the high river flows and greatly aggravate lowland flooding along streams. Ocean flooding also affects diked areas of the County bordering the Columbia, Lewis and Clark, and Youngs Rivers when high tides and river flows close the tide gates, temporarily flooding the diked tidelands.

Stream flooding in the upland areas of the County is much less severe than in the low flat coastal and estuary areas. The extent of flooding in the upland areas is most times limited by the narrowness of the stream valleys.

As part of the participation in the National Flood Insurance Program, Clatsop County has adopted a floodplain ordinance setting forth regulations for development in floodways and floodplains in relation to the degree of hazard present. No structures for human habitation are allowed in floodways. In other flood areas, structures must be flood proofed or elevated 1 foot above the 100 year flood. The flood elevations determined in coastal areas took coastal flooding and tsunamis into consideration.

Clatsop County recognizes the development limitations of floodplains, with their best use being for agriculture, forestry, and open space where the number of structures subject to damage is minimized. Most of the diked tideland and areas of the County with broad floodplains have been placed in Exclusive Farm Use zones (EFU). Where subdivisions do occur in floodplains, developers are encouraged to cluster homes outside of the floodplain area, leaving the floodplain in open space.

GOAL

To protect life and property from natural disasters and hazards.

FLOOD HAZARD POLICIES

1. Clatsop County recognizes the value of an integrated flood hazard management program in order to protect human life and property and shall continue participation in the Federal Flood Insurance Program.

2. Flood hazard engineering works are not the final answer to deter potential flooding; a sound land use program must precede them.

3. A floodplain ordinance shall be adopted which sets forth development standards for the floodway and areas of special flood hazard. Structures for human habitation shall be prohibited from the floodway. Structures in the floodway fringe shall be floodproofed or required to have their first floor elevated at least one foot above the 100 year flood level.

4. The County shall strive to make flood hazard information available to the public to insure that owners and potential buyers of flood prone land are aware of the hazard.

5. Maintenance and repair of existing flood control works shall be encouraged. Where development occurs or is planned on existing diked lands, the dikes shall be improved and maintained. Construction of new dikes for establishing future development in floodplain areas shall be discouraged.

6. All future river or stream crossings shall be designed to provide adequate waterway openings and bridge clearance above flood flows. Existing roads and bridges that are subject to being undermined or washed out will be identified on maps for reference during emergency situations.

7. Agriculture, forestry, open space and recreation shall be preferred uses of flood prone areas.

8. Community structures such as hospitals, public schools, nursing homes, etc. will not be built in areas identified as flood prone.

9. Subdivisions occurring within floodplain areas shall be encouraged to cluster land uses outside of the floodplain area leaving the floodplain in open space.

10. Filling and construction within designated floodways shall be prohibited it if presents a danger of raising future flood levels.

11. Transportation systems constructed in floodplains shall be designed so as to cause the least adverse hydraulic effect considering expected flood flows and debris loads.

Mass Movement

BASIC FINDINGS

Extensive areas of Clatsop County are subject to mass movement, the majority of which is in the mountainous interior of the County used exclusively for forestry. However, throughout the County there are areas with mass movement potential which have the possibility of more varied use, such as rural areas along the Columbia River and along the southwest coast. Structures and facilities are subject to severe damage or complete destruction over time from moving masses of earth.

The southwest coast is the area of the County with the most severe mass movement hazards. The area has a history of major landslide activity including the Silver Point and Ecola landslides. A detailed geologic report by Martin Ross found the entire southwest coast retreating landward at varying rates caused by ocean wave undercutting and related landsliding. The recommendations from this study form the basis for the hazard policies the County has adopted as part of the Southwest Coastal Community Plan.

Care needs to be taken in approving development in areas of mass movement hazards. Excavations, cuts, fills and drainage modifications may decrease the stability of an area and initiate sliding. The County has the opportunity to minimize hazards by controlling the design of developments. Some methods include discouraging cut and fill construction practices, retaining stabilizing vegetation, and requiring roads to follow slope contours.

The best sources of information for mass movement hazards in areas of the County other than the southwest coast is the detailed soils mapping by the Soil Conservation Service (SCS). The SCS has prepared an inventory of the slopes at which different soil types in the County become hazardous (Table 1). When development is to occur on hazardous soils and slopes, the County will require a preliminary site investigation for evidence of hazards. If evidence of hazards is found, the County will require a detailed site investigation which includes possible solutions to address the hazard.

Most of the Oregon coast is categorized as a zone of minor potential earthquake damage for which quakes of Mercalli intensity V-VI may occur. The major hazard of earthquakes is that in regions of moderate to steep slopes and saturated ground conditions such as large areas of Clatsop County, earthquake vibrations could initiate significant slope failure.

TABLE 1

SOILS HAZARDOUS IN RELATION TO
MASS MOVEMENT

SOIL	MAPPING SYMBOL	SLOPE AT WHICH BECOMES HAZARDOUS
Astoria silt loam	2E, F, G	20%
Hembre silt loam	12H	60%
Kilchis silt loam	27	60%
Klickitat stony loam	20G, H	50-60%
Svensen loam	37E,F,G	20%
Terrace escarpment	28E	
Tolovana silt loam	38E,F,G,H,F-1	20%
Winema silty clay (33 silt loam)	34E,F,G	20%
Ecola silt loam (13 silt loam)	13E,F,G,H	20%

GENERAL MASS MOVEMENT POLICIES

1. The County shall recognize the development limitations imposed by areas of mass movement potential.

2. Mass movement hazards do not necessitate disapproval of development, but higher development standards can be expected in order to minimize problems.

3. Clustering of development on stable or less steep portions of sites is encouraged in order to maintain steeper or unstable slopes in their natural conditions.

4. Closely spaced septic tanks and drainfields should be restricted from moderately to steeply sloping areas because of the potential for sliding.

5. Projects which include plans for modifying the topography of sloping areas or established drainage patterns shall be evaluated in terms of the effect these changes would have on slope stability.

6. The presence of faults in an area shall constitute additional reason for restricting development in areas of landslide topography.

7. The County Planning Department should inform potential builders and developers of the presence of fault lines and may require a site investigation in appropriate situations (such as the construction of a school, hospital or large residential development).

DEVELOPMENT POLICIES FOR AREAS OF MASS MOVEMENT

1. Structures should be planned to preserve natural slopes. Cut and fill construction methods shall be discouraged.

2. Access roads and driveways shall follow slope contours to reduce the need for grading and filling, reduce erosion, and prevent the rapid discharge of runoff into natural drainageways.

3. Loss of ground cover for moderately to steeply sloping lands may cause land slippage and erosion problems by increasing runoff velocity. Development on moderate to steep slopes should generally leave the natural topography of the site intact. Existing vegetation, particularly trees, should be retained on the site.

4. The County shall require a preliminary slope stability investigation in the following hazard areas:

   a. Where detailed soils maps exist, in hazardous soils areas listed in Table 2 ;

   b. Where no detailed soil maps exist, all areas which have slopes in excess of 25%.

   Where the preliminary slope stability investigation indicates mass movement hazards on the site, a detailed site investigation report shall be prepared. The detailed report shall indicate the severity of the hazard and any recommended techniques that could be used to alleviate the hazard before structures, roads, and septic tanks are allowed in non-commercial forest lands.

BASIC FINDINGS

In the alluvial lowland areas near streams and rivers and in the interdune areas of the Clatsop Plains, the groundwater table is at or near the ground surface much of the year. Problems associated with high groundwater include hydrostatic pressure causing buoyancy of underground tanks or fracturing of basement floors and walls and health hazards from improperly working septic systems. Much of the problem of building in areas of high groundwater has been addressed by the present DEQ rules which prohibit the issuance of septic tank permits when the groundwater level is within 5½ feet of the ground surface.

Most of the soils with high groundwater levels also experience problems due to the compressible properties of the soils. Construction on compressible soils can result in differential settling of development such as homes, roads, railroads, airport runways and pipelines.

Engineering solutions include excavation and backfilling with a more suitable material, preloading, and the use of piling or spread footings depending upon the nature of the specific structure being considered and the degree of severity of the hazard.

POLICIES FOR AREAS WITH HIGH GROUNDWATER AND/OR COMPRESSIBLE SOILS

1. The County shall recognize the development limitations of lands with high ground water and compressible soils during its planning process.

2. It is recommended that in all areas identified as having a high ground water level, DEQ conduct a winter water check before issuing any septic tank permits.

3. Prior to the approval of a subdivision in areas of compressible soils, the County shall require a site investigation prepared by a soils engineer, geologic engineer or other expert. The report shall indicate what techniques can be used to address the hazards on the property.

4. Prior to the issuance of a building permit in an area of compressible soils the building official may require that special provisions be made in the foundation design and construction to safeguard against damage. The building official may require a site investigation and report to provide this design and construction criteria.

5. The County shall update its compressible soils and high water table maps as detailed soils information becomes available.

TABLE 2

COMPRESSIBLE SOILS AND
SOILS THAT EXHIBIT HIGH GROUNDWATER LEVELS
IN CLATSOP COUNTY

Soil	Detailed Soils Map Symbol	Compressible	High Groundwater
Peat	21A	X	X
Brailler muck	3A	X	X
Clatsop silty clay loam	5A	X	X
Coquille silty clay loam	7A	X	X
Warrenton loamy fine sand	23A		X

Erosion and Deposition

Erosion hazards in Clatsop County can be divided into streambank erosion, wind erosion, and wave erosion.

Wind and wave erosion hazards are addressed in the Beaches and Dunes section of the Clatsop Plains Community Plan and the Hazards section of the Southwest Coastal Community Plan.

Streambank Erosion and Deposition

BASIC FINDINGS

Areas of most active streambank erosion are recognized by steep slopes, little vegetative cover, and position on the outside of stream and river channels. In addition to the loss of land, stream erosion is responsible for deterioration of water quality, destruction of fish spawning grounds and silt deposition which results in the clogging of the streams and estuaries.

Streambank erosion is a special hazard in diked areas. Much of the problem may be due to wave action caused by tug and other boat traffic.

Both direct and indirect measures need to be taken if streambank erosion and deposition are to be controlled. Direct actions include streambank planting and installation of riprap, groins or baffles. Indirect methods of control are an attempt to get at the causes of erosion and are often the most difficult. Control of logging activity to reduce the amount of sediment and debris in the water is a major concern.

Streams and rivers in Clatsop County with erosion hazards have been identified by the Department of Geology and Mineral Industries as part of their two environmental geology reports and through the 208 Program conducted by the DEQ. Erosion rates are not known for the various rivers and streams in the County, which makes it difficult to prescribe safe setbacks for improvements. However, floodways of various widths exist along the streams and rivers within which no permanent structures are allowed. In addition, building setbacks along water lines will be prescribed for the multiple purpose of preventing erosion, maintaining wildlife habitat and providing a natural filter for runoff.

POLICIES FOR STREAMBANK EROSION AND DEPOSITION

1. The outside faces of dikes shall be stabilized to prevent erosion as part of the regular maintenance of existing dikes.

2. A buffer of riparian vegetation along streams and rivers should be encouraged in order to protect and stabilize the banks.

3. Property owners shall be notified of areas of streambank erosion so they can take this information into account when placing structures.

4. The DEQ's best management practices for agricultural areas shall be supported to reduce erosion and sedimentation of streams.

5. Appropriate agencies should work to obtain speed limits and enforcement of these speed limits for boats in areas where dikes are affected by wave erosion.

6. The Forest Practices Act shall be strictly enforced to reduce sedimentation of streams.

7. Problems from natural erosion or the creation of situations where erosion would be increased due to actions on or adjacent to the river banks shall be avoided by carefully reviewing state and federal permits for shoreline stabilization to minimize impacts on adjacent land.

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 8

Recreational Needs

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

INTRODUCTION

Hundreds of thousands of people are attracted annually to the beauty and recreational opportunities of the Oregon coast. In Clatsop County these numbers are significant both in terms of the economy and the use of the land.

Recreation and tourism is the third largest industry in Clatsop County. There seems to be no limit to the demand for more recreational facilities and tourist accommodations.

Like other coastal counties, Clatsop County is attempting to meet the recreational demand created by persons living outside the County.

BASIC FINDINGS

Clatsop and Tillamook Counties have more regional parks than any other district in the State. In fact, more than 10,000 acres in Clatsop County are presently devoted to recreational use.

Many Clatsop County residents feel that the present facilities are adequate. They fear that expanded recreational development would be a detriment both in terms of overcrowding and demand, on public facilities and transportation, especially during the summer months.

While the County has had to deal with the impacts of increased tourism, local needs are sometimes ignored. Due to the prevailing inclement weather of the winter months, one of the greatest needs of the County is indoor recreational facilities.

In addition, as more people travel to the area, transportation access routes must be improved and expanded. This will include regular maintenance of the highway system and encouragement of other modes of travel, such as walking, bicycling, hiking and horseback riding.

Management of recreational facilities within the County is complex and diverse, consisting of separate agencies and boards with varying degrees of expertise and available funds.

Many private individuals and associations also provide recreational opportunities in the County.

GOAL

To satisfy the recreational needs of the citizens of the state and visitors.

1. Citizens shall be involved in the provision and maintenance of parks and recreational facilities and programs by establishing a committee to coordinate efforts of the State, County, Cities and School Boards.

2. A County-wide Recreational Plan shall be developed which analyses and projects long-range recreational planning needs.

3. In the provision of new facilities, the County shall strive to satisfy both indoor and outdoor recreational needs of local residents first, other Oregonians next, and then provide for out-of-state visitors. Priority shall be given to recreational facilities which are close to population centers.

4. The County shall consider County lands resulting from tax foreclosure for use as recreational sites as needed.

5. The County shall support the development of combined school-park facilities.

6. The development of recreational facilities by private enterprise and special recreational districts shall be encouraged which are self-supporting.

7. Non-motorized types of recreational activities shall be preferr-ed over motorized activities.

8. Until the state is capable of providing adequate police protection, the County shall discourage the use of off-road vehicles on dunes and sensitive areas.

9. The County shall support the formation of a committee which would identify the location and type of bikeways and trails needed in the area. These facilities should be planned to connect cities, communities, parks and other points of interest.

10. The County shall encourage and assist, where feasible, both private enterprise and other public jurisdictions in the development of parks and recreational facilities which provide for the unique needs of the young, aged, and handicapped.

11. State, Federal, local jurisdictions and agencies should be encouraged to coordinate their efforts in the development of recreational resources.

12. The County recognizes the importance of the natural features of the County which attract visitors and residents and shall safeguard and protect for their continued existence.

13. Additional locations for recreational facilities or expansion of existing facilities should be jointly considered by interested state agencies and the County to assess needs and protect the environment.. New developments must demonstrate that:

    a. Access from highways are appropriately located and designed to provide for safe exist from and entry to the highway by large motor homes and vehicles pulling trailers.

b. Roads connecting the highways with access points are capable of handling the types and volumes of traffic that such a facilitiy would create.

c. The impacts of site development and the resulting traffic upon local residential areas are carefully considered.

d. Before any overnight facilities are established at any public or private parks, consideration is goven to their impact on the area (i.e., streams, sewage disposal, garbage, police, etc.) These facilities, if they are developed should be self-supporting.

e. The density proposed does not exceed the carrying capacity of the land to support such development and common useable open spaces are provided.

f. Buffers are adequate to protect adjacent properties and highways from adverse impacts including lights, noise, and trespassing.

g. Signs which are located adjacent to the highway are the minimum necessary to identify the development and do not distract from the character of the area.

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 9

Economy

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

INTRODUCTION

Clatsop County has been suffering from economic problems since the mid-fifties due to the area's dependence on the harvesting and exploitation of local natural resources. The forest products industry is the largest dollar generator in Clatsop County, followed by the marine resource sector and tourism.

Due primarily to the seasonal and cyclical nature of these sectors, the county experiences high unemployment, wide discrepancies in patterns of earned income distribution, and significant numbers of households near or below federal poverty line indicators.

Existing national economic conditions are responsible for the exportation of non- or semi-processed raw materials resulting in the accompanying exportation of above-average manufacturing wage occupational opportunities.

Overall, Clatsop County's economic strategies must aim at maximizing the potential for local processing and manufacturing of existing resources while attempting to decrease the leakage of local investment and consumer dollar flows.

GOAL

To diversify and improve the economy of the state and Clatsop County.

AREAS OF CONCERN

(Summary)

COMMUNITY RESOURCES

—fragmented local economic planning

—insufficient local economic planning expertise

—uneven infrastructure facilities

—insufficient industrial land in rural areas

—poor land-based transportation network

—prohibitative parcel size on vacant industrial land in urban growth areas

—shortage of investment capital for local manufacturing opportunities

—lack of local control over major occupational opportunities

NATURAL RESOURCES

—cyclical supply and demand patterns

—development pressure on agricultural, forest, and marine productive land uses

—reliance on single crop/species harvest and processing patterns

—insufficient long-range productivity measures of marine, forest, and agricultural areas

—economic conflicts over resource usage (ie, forest industry, marine industry, and tourist industry)

—high energy utilization of resource harvesting and processing techniques

HUMAN RESOURCES

—seasonality of major occupational opportunities

—increased mechanization of major occupational opportunities

—low-income producing nature of increasing non-manufacturing occupations

—traditionally high unemployment

—poor county-wide income distribution patterns

—declining county-wide personal income

—nation-wide inflation in basic necessities (energy, food and housing)

—area has a disproportionate number of retired citizens

Forest Products

BASIC FINDINGS

The forest products sector of the County's economy is currently growing and is expected to continue to grow in the foreseeable future due to a favorable combination of factors including excellent access to raw materials and national and international markets through transshipment points on the Columbia River.

The forest industry generates more economic activity in the County than all other sectors of the economy combined. The principal impact to the County's economy from this sector is payment to households (i.e., local employment) from the processing of forest resources. Little correlation exists between the amount of timber harvested in Clatsop County and employment in local mills due to current timber transportation patterns where local timber is exported internationally while at the same time timber is imported from neighboring counties for local mills. This lack of correlation between local jobs and local harvest levels means that harvest rates above sustained yield levels will not substantially affect long term County employment levels. The best long term employment opportunities for Clatsop County lies in the complete utilization of all the wood fiber the forest lands in the County are capable of producing on a sustained yield basis. That would mean more complete utilization of those species now being harvested as well as bringing into use species not now being used. It would mean an increase in small scale processing operations, better management of the County's small woodlots and an increase in the dollars remaining in the area.

In light of the above facts, the County's best long-term interest is to protect its forest base both in total acreage and rate of harvest so that a stable supply of lower cost lumber is guaranteed for years to come.

POLICIES

1. Forestation and reforestation of the County's forest lands is encouraged.

2. The County shall encourage the continuation of the long-term supply of raw products necessary to provide material for County mills by the following:

    a. Sustained yields of forest products should be promoted through educational programs provided by service foresters, extension service personnel and continuing educational courses.

b. Information should be disseminated to owners of small woodlots to help them direct their forest management practices toward a sustained yield of forest products.

c. Small woodlot owners should be provided financial incentives for maintaining forest land use and effective management practices. Both public and private sectors (especially local forest products industries) should examine long-range payment and contractual agreements with small woodlot owners to level existing tax inequities and diminish long-range cash flow problems. (Such contracts could include re-seeding agreements and cost sharing proposals.)

d. State and federal representatives should be asked to explore legislation to provide assistance and incentives to small woodlot owners to insure participation in effective management programs.

e. Public works (such as CETA or an EDA program) and other labor intensive techniques should be employed to accelerate seeding and replanting efforts on small woodlots. In addition, labor intensive brush clearing and seeding preparations should take precedence where feasible over non-labor intensive techniques, especially if cleared fiber could be utilized for other purposes (energy generation).

f. Reforestation of special species should be encouraged by public incentives, especially for long maturation species such as cedar.

3. The County will work with private industry, the Port of Astoria, the Clatsop County Economic Development Committee and other economic orgranizations in their attempts to improve forest industry employment opportunities by:

a. Providing technical assistance and business management training to help establishment of small businesses involved in timber salvage, precommercial thinning, tree planting, pole and post cutting, etc.

b. Working with groups such as the Economic Development Administration to encourage the location of small businesses in the County which provide season long employment in the forest industry.

Small businesses which would more totally process wood products from currently wasted material should be especially encouraged.

c. Utilizing local education facilities and personnel to provide training in forestry-related skills through cooperation with and knowledge of industry needs.

d. Supporting public actions (such as revenue bonding) which:

1) encourage research and development of wood-waste fueled energy generation,

2) develop technology and products made primarily from non-commercial and under utilized tree species (especially alder), and

3) assist small scale equipment development (i.e., chippers, portable specialty saw mills, etc.).

e. Considering all measures to encourage expanded local processing of locally grown wood fibre to minimize current dollar leakages, including low interest loans, CETA grants, small business assistance programs, and maximum use of the community reinvestment act.

f. Providing adequate industrial lands, an efficient permit approval procedure and adequate public facilities for forestry-related businesses.

Marine Resources

BASIC FINDINGS

Clatsop County currently has the largest marine resource sector of any coastal county. This corresponds to the Oregon State University Input/Output Model for Clatsop County which places the marine resource sector as the area's second largest dollar generator immediately behind forest activities. However, only by developing a wider resource base will Clatsop County be able to maintain its position as the State's largest seafood processor. Hope for the future lies with exploitation of different species, such as bottom fish, rather than more exploitation of existing activities. If new species and different products are utilized, it may be possible to generate numerous employment opportunities.

Seafood processing is labor intensive and as would be expected, a direct correlation exists between the number of pounds of fish landed and employment opportunities created. Increased output in marine resource activity generates more jobs per dollar than the other leading economic sectors of the County.

POLICIES

1. The County shall enhance and protect the marine resource environment through participation in the Columbia River Estuary regional planning process.

2. Clatsop County encourages efforts towards organizing the numerous fishing interests in Clatsop County in conjunction with OSU's Sea Grant Program, Clatsop Community College and the Clatsop County Economic Development Committee to develop methods to expand fishery activity in Clatsop County. Such activity could include:

a. continued staff support for the Vanderveldt Pond salmon hatchery model project,

b. expansion of the Vanderveldt Pond model project to include experimentation with other species and various food fish by-products,

c. establishment of other model programs to utilize various fish species in different products, and

d. provision of technical assistance to local citizens interested in attempting commercial ventures derived from model programs.

3. The County, Port of Astoria, and the Economic Development Committee should promote those public facilities and services required to increase the amount of seafood landed in Clatsop County. These activities include:

a. Cataloging existing federal and state loan programs, production credits, and other program opportunities so that area fishermen and local financial institutions are aware of benefits and utilization procedures. (NOTE: The Economic Development Committee with financial assistance is the ideal setting for bringing finance managers and fishery personnel together.)

b. Encouraging resource agencies to continue developing information on the sustained yield of fisheries.

c. The County, through the Citizen Advisory and technical committees, should become involved in the selection of research projects in the Columbia River Estuary Data Development Study so that the research generated reflects local needs and concerns.

d. Developing and expanding land-based facilities in cooperation with fishery personnel, local businessmen, and port district staff, placing special attention on cold storage, landing facilities and moorage facilities.

e. Developing a brochure of facilities available in Clatsop County to be distributed to the West Coast fishing fleet in order to expand visitor landings in the area.

f. Giving priority to the development of marketing and transportation cooperatives or associations to provide competitive advantages to local fishery personnel.

g. Encouraging cooperation of local lending institutions and provision of technical assistance to assist local boat builders in expanding building facilities.

Travel Industry

BASIC FINDINGS

The tourist or travel industry is, like the other major economic sectors of Clatsop County, based on use of the area's natural resources. These resources include the relatively unpopulated coastal beaches, forest areas, good fish and wildlife populations and clean air. In direct dollar impact, the travel industry is the third most important sector. While employment opportunities in the travel sector tend to be lower paying, these jobs provide important opportunities for new labor entrants and secondary wage earners.

The tourist industry impacts the County in both positive and negative ways. Costs borne by the community include over design of public facilities to meet peak load summer demand, highway congestion, effects of the inflationary travel dollar, and crowding of recreational areas. It is important to realize the danger of promoting any tourist activity until it surpasses the resource's carrying capacity. The beaches, rivers and forest can become so crowded that the recreational experience is diminished and tourist dollars decrease. The best strategy for the County is to level out the impacts on public services and communities by promoting travel activity during the traditional non-tourist season.

The travel industry is the economic sector of the County most susceptible to the current national economic conditions of inflation and rising energy costs. The County can expect a significant decrease in out-of-state tourists. Due to the County's proximity to Portland, this decrease will be somewhat off-set by an increase in in-state tourists. As energy prices increase, it seems logical to expect an increase in destination oriented tourism accompanied by a decrease in self-contained recreational vehicle type tourists.

POLICIES

1. The County Planning Commission, in cooperation with the Recreation/Tourism Subcommittee should act in unison to insure that future Recreation/Tourism high intensity activity is located in Urban Growth Boundaries and Rural Service Areas which have the capacity to handle them at the lowest possible public cost. Tourist facilities should be developed in these areas before developing new facilities elsewhere.

2. The County Commission, in conjunction with the Fair Board, should attempt to promote year-round utilization of the facilities at the County Fairgrounds.

3. The County should encourage local travel industry representatives and organizations to coordinate with each other to promote off-season activities. Clatsop County supports the EDC Recreation/Tourism Subcommittee efforts in developing a County-wide visitors bureau.

The Recreation/Tourism Subcommittee of the EDC could provide a forum for the fragmented tourist industry to meet and organize their efforts. The primary goal should be to provide indoor off-season facilities to level out the current employment pattern.

4. The County should encourage Clatsop Community College, in coordination with local tourist and retail organizations, to provide programs and training for local businesses. Such training could consist of off-season workshops on needed areas of information and should be geared to the financial scope and needs of existing small businesses. Workshops could be offered in:
   a. marketing and advertising methods for small businesses,

   b. management assistance,

   c. employee/employer relations, and

   d. customer relations.

5. In order to develop and better utilize local recreational and tourist resources, the County should research, inventory, and catalog existing and potential recreational resources.

Human Resources

BASIC FINDINGS

Problems of the labor market in Clatsop County include the seasonality of major occupational opportunities and traditionally high unemployment. As population during the 1970's has slowly increased, the job market has not been able to maintain a comparable rate of new job creation. Three-quarters of the new jobs created since 1960 have been in the non-manufacturing sector (i.e. tourist industry) which traditionally has been lower paying and less skilled jobs. This is reflected in unequal County-wide income distribution patterns where 50% of those earning income in Clatsop County in 1978 earned only 16% of available income.

A substantial portion of unemployed persons in Clatsop County do not possess the skills necessary to gain employment in the higher paid skilled jobs available in the County. A major need exists to develop vocational and other job skill programs to enable local low-income residents to successfully compete with qualified people outside the area for employment in any new industrial opportunity. Without a job training program, the creation of new jobs in the County is not likely to change unemployment trends, alter the existing distribution of income or affect the population/employment ratio.

POLICIES

1. The County shall encourage local County-based industrial and commercial firms to cooperate with existing educational institutions to develop and utilize job training programs to hire local unemployed and underemployed individuals.

2. The Human Resources committee of the County should serve as a liason between local business and the community college. The committee should provide information to the college on the needs of local business and information to local business of services available at the college.

Community Resources

BASIC FINDINGS

A. Advisory and Technical Support Organizations:

1. Clatsop County Economic Development Committee (EDC)

The EDC is the Economic Development Administration's recognized body to do overall economic development planning for Clatsop County. This organization is comprised of numerous public officials, various special interest and business groups, business men and women and technical personnel. They have been active and influential in determining local development strategies. One of their major accomplishments has been the establishment of a salmon-rearing hatchery on Vanderveldt Pond which will provide several million salmon per year into the Columbia, improving sport and commercial catch opportunities.

More locally initiated projects need to be generated if the area is to meet the needs of the expanding labor force. By working together the community could design projects for wood waste and hardwood utilization, fish waste and bottom fish product development, and numerous infrastructure improvements for recreation/tourism activity. The latter area has received considerable attention by the EDC and projects in this area are moving toward completion.

It seems likely that the EDC will attempt future projects similar to the salmon hatchery project where local resources are better utilized for local residents due to the apparent success of that project. A step in that direction may be the expansion of the EDC to include areas currently not represented and support from local jurisdictions to provide the EDC with the staff necessary to maintain and expand their existing efforts.

2. Port of Astoria

The Port of Astoria is one of the largest recreational, commercial, and cargo ports on the Oregon coast. The Port's current goals emphasize their long-range purpose of gaining an active role in the

Columbia River transportation network. Its strategic location at the mouth of the Columbia River provides it with competitively advantageous economic opportunities that increase as transportation costs of ocean-going vessels rise.

However, in order to make this possible major improvements in the railroad tracks from Portland to Astoria and upgrading of Highway 30 east of Astoria must occur.

However, the Port also needs to consider shifting some of its emphasis into short-term community development projects. By utilizing the Port's bonding capability, various projects exist that would both generate revenue for the Port and provide occupational opportunities for County residents. In order to increase its effectiveness in the area of economic development, the Port of Astoria must attempt to balance its roles of transportation of cargo and community job creator.

B. Industrial Lands:

The EDC has completed an inventory of County-wide industrial zoned land. As the inventory portrays, Clatsop County has a number of vacant industrial sites throughout the County, several being large tracts of 100-660 acres. The largest amounts of industrial land are in Warrenton, Astoria and along the Columbia River at Westport. The Alumax site of 662 acres and the industrial land at Tongue Point have been included into the cities of Warrenton and Astoria's Urban Growth Boundaries respectively. This reflects the cities' capabilities of serving these areas during the planning period.

The Estuarine Resources Goal (#16) requires identification and protection of areas especially suited for water dependent development. These areas were identified in the County through the CREST plan and are appropriately protected in this plan. Detailed information on each of the vacant industrial sites is contained in Appendix A of the Economic Background Report.

A problem exists in that the larger industrial tracts tend to be available on an all or nothing basis due primarily to ownership patterns. The only client currently capable of utilizing such a large parcel would be a heavy large industrial activity. By opening one or more of the large hundred plus acre sites for small industrial usage it may be possible to meet demand for industrial land more efficiently and also make it easier to attract smaller firms to the area.

C. Cottage Industries:

There is a need to enable small scale low-impact manufacturing activities to get a start in the County without large capital outlays for buildings, purchase of land, etc. This could be accomplished by allowing "cottage industries" on a conditional basis in parts of the rural area of the County. Cottage industries are those industries which utilize a small-scale low-impact technology in the processing of a natural resource.

POLICIES

1. The County and other local jurisdictions should continue support of the economic planning program by either:

   a. Providing staff assistance to the existing EDC which currently has the official task of County-wide economic planning and special district and municipal coordination,

   b. Integrating the existing economic planning process into the Department of Planning and Development and providing additional staff to operate a full-time economic program, or

   c. Delegating the existing economic planning process to the Clatsop-Tillamook Intergovernmental Council and sharing staff costs with member governments.

2. The EDC, in conjunction with the County, Port and any affected municipality, should work to make one of the larger industrial parcels available for small users.

3. The County shall establish standards and procedures for allowing the establishment of cottage industries in various rural areas of the County. Standards shall address measures to insure the use does not impact surrounding properties and insure that the scale of the use is compatible with the surrounding area.

   The provision for cottage industries is intended to allow residents to experiment with various manufacturing and processing operations at minimal cost. If a business becomes established and desires expansion beyond the small scale limits set in the Zoning Ordinance, the business shall relocate in an industrial area.

4. The County and the Port of Astoria shall cooperatively promote "Port" programs which demonstrate some benefits to all taxpayers in the Port District.

5. Education and citizen involvement programs should be developed by the Port of Astoria to determine what citizens in various areas of the County need and desire for economic development.

6. In order to make major industrial development possible, local governments, the Port and State and Federal agencies shall work together to improve: (a) the railroad from Portland to Astoria, (b) Highway 30 in and near Astoria.

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 10

Population and Housing

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

INTRODUCTION

Clatsop County has experienced a slight but steady increase in population during the 1970's.

Some of Clatsop County's population growth is due to people wanting to take advantage of the County's natural beauty and perceived peace and quiet of the small coastal communities.

Population projections are necessary in order to determine the impacts that will occur arising from this growth. Population projections are used to determine the amount of land that needs to be set aside for residences, commercial centers, industries, parks and roads. They also enable the County to determine the level of demand for public facilities. The County needs to meet this demand for housing while retaining its forest and agricultural base.

The number of households are also increasing as household sizes decrease, putting an added burden on available housing units in the County.

BASIC POPULATION FINDINGS

Since 1964 the County has shown a slow but steady population increase. The major population concentrations are located in the Astoria-Youngs Bay and Seaside-Gearhart areas. The majority of the population is concentrated in areas with public water and/or sewer. Historically, the unincorporated areas have comprised about 35% of the total County population. This situation is anticipated to continue during the next 20 years. Job opportunities are a prime factor in growth although other factors such as environment and perceived living quality can stimulate growth. Young adults (20-29) continue to leave the County to pursue employment, while people 40 and over move to the area. Clatsop County continues to be above the State average for those 65 and over (retired). By the year 2000, Clatsop County's population is expected to increase by approximately 10,000 people.

POPULATION POLICIES

1. Community plans should provide for orderly growth which reduces the cost of esstential services while preserving the basic elements of the environment.

2. Promote population to locate in established service areas.

3. Promote the accommodation of growth within areas where it will have minimal negative impacts on the County's environment and natural resources.

4. Utilize current vacant land found between developments or within committed lands.

5. Direct new urban growth within Clatsop County to existing urban growth boundary or rural service areas where underutilized public or semi-public facilities exist or utility and/or service investments have already been made.

6. Encourage development of land with less resource value.

7. Coordinate planning efforts of local governments and special districts to maximize efficiency of public facilities, and have land use actions reflect the goals and policies of the Plan.

BASIC HOUSING FINDINGS

There are approximately 15,100 dwelling units in Clatsop County. The unincorporated areas represent about 33% of this total, or approximately 5,000 dwelling units. The majority of the dwellings are single-family units.

Most of the housing stock is older, lacks insulation, and is sometimes difficult to finance. In the unincorporated County it is estimated that nearly 28% of the total units need major repairs. Many programs are available in the area to assist in this effort.

Almost half of all new residential building construction in the County has occurred in the unincorporated areas since 1960. About one out of every 3.5 homes built in the unincorporated County is a second home, while mobile homes constitute a third of all new building permits issued each year. Overall, it appears that for the County as a whole the demand for mobile homes as an economic alternative to conventional housing will increase each year, while the demand for second homes is expected to decrease, due to non-availability of loans for second homes, gas crisis and continued inflationary pressures.

The needs of the low-income and elderly cannot totally be met by the mobile home industry. While comparitively cheaper than new conventional dwellings, a mobile home is still expensive. The 1970 Census showed that nearly 14% of the County's total population was below poverty level. Most of these people are eligible for rental assistance and will be provided with housing in cities.

While sales activity in the County in the past 10 years has been very good, many people are being priced out of the market due to rising land prices, interest rates, and high construction costs. Choices are also somewhat limited due to the lack of building sites and high development costs, although mostly applicable to the cities.

Without alternatives to choose from, such as multi-family dwellings, single family attached housing, condominiums, and mobile homes, additional pressure will be placed on the existing housing supply and prices will continue to soar. Likewise, the less land area available for development in areas serviced by public facilities, the more pressure will be placed on rural areas to accommodate housing needs and the more expensive it will be.

At current household size projections, permanent housing needs will be 150 to 200 new units per year.

GOAL

To provide for the housing needs of citizens of the state.

HOUSING POLICIES

Residential Development

1. Clatsop County shall encourage residential development only in those areas where necessary public facilities and services can be provided and where conflicts with forest and agricultural uses are minimized.

2. Clatsop County shall assit in planning for the availability of adequate numbers of housing units at price ranges and rent levels commensurate with the financial capabilities of County residents.

3. Clatsop County shall encourage planned developments and subdivisions to cluster dwelling units. The clustering of dwellings in small numbers and the provision of common open space assures good utilization of the land, increased environmental amenities. and may be used as an open space buffer between the residential use and adjacent agricultural or forest uses.

4. Clatsop County shall permit residential development in those designated areas when and where it can be demonstrated that:

   a. Water is available which meets state and federal standards;

   b. Each housing unit will have either an approved site for a sewage disposal system which meets the standards of the County and the Department of Environmental Quality or ready access to a community system;

   c. The setback requirements for the development of wells and septic systems on adjacent parcels have been observed;

   d. Development of residential units will not result in the loss of lands zoned or designated for agriculture or forestry and will not interfere with surrounding agricultural or forestry activities.

5. Clatsop County shall permit temporary siting of mobile homes in specified locations in the event of an emergency.

6. Clatsop County shall encourage multi-family housing and mobile home park developments to develop within the various urban growth boundaries.

7. Clatsop County shall encourage the development of passed over lots that already have services such as water and roads be preferred for development over tracts requiring an extension of services.

8. Clatsop County shall make provision for housing in areas designated for RURAL, Urban Growth Boundaries, and Rural Service Areas which provide variety in location, type, density and cost where compatible with development on surrounding lands.

Governmental Cooperation and Coordination

9. Clatsop County shall cooperate with governmental agencies and Clatsop County Housing Authority in promoting unified housing policies and in ensuring an equitable distribution of assisted housing throughout the County.

10. Clatsop County shall encourage state and federal agencies to develop programs and funding sources to increase the level of support for the maintenance and rehabilitation of existing housing and for the development of additional housing.

Housing Rehabilitation

11. Clatsop County shall develop and maintain an inventory of the type and condition of the current housing stock. The rural housing needs should be re-examined every two years to reflect the market changes and new information.

12. Clatsop County shall encourage the retention of the current housing stock and, where necessary and feasible, will assist in the rehabilitation of substandard housing units.

Assisted Housing

13. Clatsop County shall set aside tracts of lands which it owns within the cities and their urban growth boundaries which can be used for low cost housing. The lands should be inventoried and a program developed through the Northwest Oregon Housing Association to release those lands for this purpose. Clustering techniques, common wall and townhouse construction, both for sale and for rent, could be employed in the development of these lands.

14. Clatsop County shall actively support programs which serve to improve housing conditions of those homeowners who are physically or financially unable to make improvements on their own.

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 11

Public Facilities and Services

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

INTRODUCTION

Public facilities and services affect a community in two ways: (a) through the costs involved in their financing and (b) through their influence on land use patterns. The nature and level of these services does much to define a community, clearly marking the differences between urban and rural land usage by their presence or absence.

The 5 cities and 1 town in Clatsop County provide differing levels of public facilities. Almost all of the urban areas provide police and fire protection, sewer, water, and library service. As the size of the city increases, the services provided become more varied.

There are limited public facilities and services provided in rural Clatsop County. This is due to the low density development characteristics and the lack of need to serve open farm and forest lands. Most rural land use is sufficiently dispersed so as not to require public facilities such as a sewer. For most areas in Clatsop County, rural facilities and services include a community water system, rural fire protection, a septic tank and the various services provided on a county-wide basis.

BASIC FINDINGS

Diking and Drainage Districts

There are 7 active diking districts, 7 inactive diking districts, 2 drainage districts and 1 water control district in the county. Most of the dikes and water control structures were constructed prior to the 1940s. By far the largest land use of diked lands is for farming. Many of the dikes are in serious states of disrepair and could possibly be breached during flood stages.

Water Supply

Most of the County's rural residences obtain their water from a community water system. Due to sedimentary rock formations in vast areas of the County, drilling for potable water is somewhat a gamble. Often when water is found in a well it is brackish. Most of the drinking water for community water systems and individual systems comes from springs, creeks and streams.

At least 5 of the 20 community water systems in the County are at or close to capacity, while 6 other systems are unsure of their capacity. Several of the community systems are inadequate in present supply, storage and distribution system capacities. Many of these systems do not have the funds nor expertise to make improvements to their systems.

All of the cities within the next 20 years will have to find additional sources of water. Some of the cities and rural water systems are or (may in the future be) at odds with the Environmental Protection Agency over the issue of the federal turbidity standards. The Clatsop Plains and Gnat Creek aquifers might have a greater potential as future water sources than existing or potential sources from springs and rivers. This is due in part to the cost of treating and distributing surface water. Studies need to be made on the possibility of a regional water supply system which could use the Columbia River as a source, filter it for purity and deliver it to the municipal and community water systems in Clatsop County.

Waste Disposal

In most parts of the unincorporated County and within the City of Gearhart sewage is handled through the use of septic tanks. The Cities of Seaside and Cannon Beach are presently looking at methods to expand their treatment capacities, while the City of Warrenton will need to look at expansion in the mid-1980s. In the Wauna-Westport area, there have been sewage disposal problems for several years. The area has formed a sewer district, but it is unclear when funds will be made available for construction of a sewer system. Several areas in the Clatsop Plains are currently under a Department of Environmental Quality moratorium due to concern over pollution of the aquifer. The County will not know what can be done to remove the moratorium until the 208 non-point pollution study is completed sometime in 1981.

Over the last several years, solid waste sites in Clatsop County have either filled up or closed due to new environmental standards developed by the federal government. Several potential new landfill sites have been rejected due to water pollution problems, steep slopes or remoteness from populated areas. Clatsop County is in the process of reexamining potential landfill sites and should be developing a site by the fall of 1980.

Governmental Structures and Other Public Facilities and Services

Within Clatsop County there are 51 different types and sizes of service districts and associations. The level of rural fire protection provided by the 9 rural fire districts varies from a fire insurance rating of 6 to 9. Police protection provided by the County Sheriff's Department is deficient due to the lack of manpower resulting from absence of County funds.

All of the school districts within the County have some capacity for additional students. The Warrenton School District will be building a new school in 1980 to replace the Warrenton Elementary and Fort Stevens Junior High School.

Within the County, postal delivery and location of homes for emergency services has become an increasing problem with approximately 400 different house numbers for each of the 6 rural mail routes. The situation grows more complicated as time passes and the population of rural areas of the County increases.

GOALS

1. Urbanizable Areas - To provide public facilities in accordance with coordinated land use and transportation systems in a manner which encourages the orderly conversion of land from rural to urban use.

2. Outside of Urbanizable Areas -

   a. To support the provision of needed public facilities for rural areas at levels appropriate for rural densities;

   b. To discourage the development of inappropriate public facilities on resource lands which would result in pressure for conversion to more intense use.

GENERAL PUBLIC FACILITIES POLICIES

1. Clatsop County shall encourage the development of appropriate public facilities and services to support and facilitate the development of land in Rural, Urban Growth Boundaries, and Rural Service Areas in the County.

2. The levels of urban services provided within urban growth boundaries shall be determined by policies mutually adopted by the Board of County Commissioners and the affected city.

3. Clatsop County shall require that community water and sewage disposal systems for rural areas be provided and maintained at levels appropriate for rural use only. Rural services shall not be developed to levels capable of supporting urban uses or densities.

4. Clatsop County's role in providing services is limited, the County shall not assist in the creation of special districts for sewer and water services.

5. The creation of new community water systems and fire districts shall be discouraged in those areas designated Conservation forest lands and Natural.

6. Water and sewer districts shall be encouraged to cooperate with the County in changing district boundaries. Before a public facility (i.e. water, sewer) extends its service area, it should demonstrate the ability to service vacant lands currently served by that public facility.

7. Development shall be allowed only if the public facilities (water, sanitation, schools and fire protection) are capable of supporting increased loads. The County shall consider prior subdivision approvals within the facilities service area when reviewing the capabilities of districts.

8. All new planned developments and subdivisions shall install underground utilities. Efforts should be made to place existing overhead lines underground in already developed areas.

9. Utility rights-of-way, where not located within road rights-of-way, should be considered for future utilization as part of a green belt or pathway.

10. All utility lines and facilities should be located on or adjacent to existing public or private rights-of-way to avoid dividing existing farm units.

DIKING AND DRAINAGE DISTRICT POLICY

Clatsop County should assist diking districts in reorganization as well as providing assistance in obtaining funds for improvement of the diking districts.

WATER SUPPLY SYSTEMS POLICIES

1. If a community water system is to be utilized, either in the development of a subdivision or the building of individual residences, the County shall confer with the local water supplied to insure adequate water is available prior to issuance of plat approvals or building permits.

2. When water supply to a subdivision or planned development is to be from a source other than a community water system, the developer shall provide evidence of a proven source of supply and guarantee availability of water to all parcels of land within the proposed development.

3. Clatsop County shall encourage existing community water supply systems to be improved and maintained at a level sufficient to:

   a. provide adequate fire flow and storage capacity to meet the service area requirements,

   b. meet the anticipated long-range maximum daily use and emergency needs of the service area, and

   c. provide adequate pressure to ensure the efficient operation of the water distribution system.

4. Clatsop County shall cooperate with the various cities in examining the feasibility of developing some type of regional water system to provide municipal and community water.

5. Clatsop County should work with State agencies to conduct a study of the Gnat Creek aquifer to determine the potential to provide a water source for residents of the area.

WASTE DISPOSAL POLICIES

1. Clatsop County considers sewer services only appropriate for urbanizable lands. The intensity of land use facilitated by provision of sewer is not appropriate for Rural areas. Clatsop County may permit the creation or extension of sewer services outside Urban Growth Boundaries and Rural Service Areas in the event of a health hazard or water pollution problem identified by DEQ.

2. Clatsop County shall cooperate with cities in developing a phased growth plan to guide the provision of municipal services to urbanizable areas.

3. Clatsop County shall encourage alternative methods of sewage disposal when such methods are economically, legally, and environmentally feasible.

4. Clatsop County should consider the use of solid waste and forest lands waste to generate electricity.

5. Clatsop County shall continue to cooperate with the various cities in the establishment of a regional landfill site.

6. The County shall encourage and support the establishment of recycling centers in various parts of the County. A pilot program should be started similar to the once-per-month system in Cannon Beach with the assistance of a service club

GOVERNMENTAL STRUCTURE AND OTHER PUBLIC FACILITIES POLICIES

1. Clatsop County shall encourage schools that most economically serve the population of the County and consideration should be given to development of a consolidated district.

2. Clatsop County shall continue to cooperate with all appropriate governmental jurisdictions, agencies, and special districts (including water, sewer, roads, etc.) in developing a coordinated approach for the planning and delivery of health and social services.

3. Clatsop County shall continue to encourage the upgrading of the level and quality of the County Sheriff's Department as funds become available.

4. Clatsop County should work with local residents as well as with the rural fire protection districts in examining various methods to improve fire protection. One method which could be used is to require subdivisions and planned developments to dedicate a site, funds, equipment, and/or construction materials for a fire station.

5. Clatsop County should work with the U.S. Postal Service in developing a new address system to facilitate the immediate location of buildings by emergency and support services in Clatsop County.

EXHIBIT "G"

COUNTY-WIDE ELEMENT

Goal 13

Energy Conservation

Adopted July 23, 1980 by
Clatsop County Board of Commissioners

INTRODUCTION

Current patterns of consumption indicate that the world supply of conventional energy sources will diminish in the near future. The energy problem is serious. The solution to the problem involves protecting existing supplies through conservation and developing new conventional and alternative sources.

BASIC FINDINGS

At present, no energy is produced in this County. There are no dams, no known oil or gas reserves, and no nuclear power plants. More than one billion kilowatt hours of energy was imported into Clatsop County in 1978. This energy appetite is not expected to decrease in the years ahead.

Over half of the energy in this County is consumed by industry and nearly 30% by residences. The industrial sector utilizes energy as part of their production while the residential sector's primary use is for space heating. Much of this heat in the residential sector is lost through poorly insulated walls and cracks at joints between windows and doors. Recently, building codes have been modified to increase the effectiveness of buildings to resist heat loss. Under the new requirements, energy consumption in new dwellings can be reduced substantially at moderate cost. Older or existing homes present different problems. They are sometimes difficult and expensive to retrofit.

Energy savings can also be achieved through proper building site design taking advantage of local topography, vegetation, and climate. It is likely that these sites will be more valuable than others in the future.

Site designs that cluster buildings or activities can also save energy, reducing street lengths and public facilities. Another new design feature that will get serious attention in the future will be attached housing which reduces heat loss through walls, ceilings, and floors.

A consideration for the siting and construction of new buildings is the orientation of the sun for solar heating. The use of solar energy systems on homes is a new and growing trend today. To enable this growth to occur, the availability of sunlight to buildings being built now must be protected. Public officials can use their authority to assure that the application of solar technology is made possible.

Solar energy is not the only alternative to conventional sources. Other sources being developed are wind, geothermal, biomass, and tides and waves.

While scientists are making progress in the development of new energy sources, the public must make progress in conserving our existing resources. Growth must be controlled so that transportation and other costs are reduced. Metals, glass, and other resources need to be recycled. Walking, bicycling, carpooling, and mass transit opportunities should be promoted. Above all, however, the public must be educated in opportunities to conserve energy, even if it means a change in lifestyles.

Goal

To conserve energy.

POLICIES AND RECOMMENDATIONS

1. The County recognizes the need for energy conservation through support of a County-wide conservation program in which the County government will play a leading role.

   a. Methods to reduce energy consumption should be explored, such as enforcing strict temperature and lighting controls in government buildings and incentive programs for carpooling, etc.

   b. New government buildings shall be energy efficient. Decisions on design and selection of equipment should not be based on the lowest initial cost alone. Operating and energy costs for a reasonable life expectancy of the building must receive equal consideration. Further, consideration should be given to the use of solar energy in heating and cooling all new government buildings.

   c. The County, cities, Extension Service and Community College should work together to establish and Energy Conservation Service with the assistance of private and public funds and expertise. This service could provide the following:
      1) Promote energy conservation through seminars other educational programs and information dissemination.

      2) Develop climate maps, energy efficient building standards and other guidelines for energy conservation.

      3) With the help of local utility companys, provide technical assistance to individuals desiring to retrofit their homes or buildingswith improved insulation or alternative energy sources.

      4) Conduct audits with the assistance of local utility companies to identify sources of greatest energy wastages in buildings and recommend ways in which to reduce this waste.

      5) Provide technical assistance to evaluate the energy efficiency of new residential, industrial, and commercial building plans submitted for approval.

      6) Maintain information on the energy efficiency of brands and models of appliances, autos, etc.

d. The County and cities should work together to establish a County-wide recycling operation (i.e., through a sheltered workshop program).

2. The following land use policies shall be adopted as part of the Comprehensive Plan to conserve energy and promote the use of alternative systems:

a. Shopping, cultural, medical, educational and other public facilities shall be encouraged to cluster in urban growth boundaries so that one trip can serve several purposes and so that the possibility of public transportation will be enhanced.

b. In new subdivisions, major or minor partitions:

1) Should maximize the opportunity for solar orientation of windows in buildings by running streets in east-west directions, and lots on a north-south axis.

When topographic conditions or natural features make street orientation for good solar orientation of units undesirable or difficult, lots shall be laid out so that units can be oriented to the south to the greatest extent possible. Clustering, innovative yard and setback approaches may be used in lieu of the street and lot plan if good solar orientation is achieved.

2) Open space should be located whenever possible to buffer structures from shadows cast by other buildings.

3) Easements for protecting solar access should be provided for every lot.

3. The County shall promote the application of renewable and alternative energy sources, by encouraging the use of total energy systems where, for example, electricity is generated and the waste heat is utilized for space heating and cooling purposes.

4. The County shall consider energy conservation in the designation of RURAL and URBAN lands.