CURRY COUNTY DEPARTMENT OF PUBLIC SERVICES

PLANNING DIVISION

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AMENDMENTS TO THE CURRY COUNTY COMPREHENSIVE PLAN CURRENT THROUGH DECEMBER 2008

ORDINANCE #	REGARDING
08-09	Storm & Surface Water Facilities Plan for Brookings-Harbor
06-08	Text amendments for Rural Residential Two (RR-2)
06-01	Revisions to Goal 6 & 7; erosion control and stormwater management; Natural Hazards
05-10	Correcting error in 05-07: gravel removal and fish habitat study NOT adopted by 05-07
05-07	Periodic Review, updating: fish habitat & non-game wildlife habitat maps; adopting TSP; amending Chapters 5, 8, 11 & 12; adopting drinking water study; adopting gravel removal and fish habitat study
04-04	Oregon Parks & Recreation Master Plan
04-02	Periodic Review updating water-dependent use lands: Rogue River Estuary
02-03	Brookings UGB
01-01	Brookings UGB
98-5	Periodic Review updating Chapters 5, 12, 14, 15, 16, & 17
95-10	Brookings UGB
94-16	Port Orford Landfill
94-14	Goal 3 & 4

BEFORE THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY, OREGON

In the Matter of the Adoption of Revisions to the Curry County Comprehensive Plan by Amending Specific Provisions of the Public Facilities Plan for Urban Growth Expansion for the Brookings and Harbor Study Areas and by Adopting a New Storm and Surface Water Facilities Plan for Brookings-Harbor Area.	)	ORDINANCE NO. 08-09

The Curry County Board of Commissioners ordains as follows:

Section 1: Findings

1. On August 30, 2002, the Board of Curry County Commissioners amended the Curry County Comprehensive Plan for the purpose of adopting the *Public Facilities Plan for Urban Growth Expansion: Brookings and Harbor Study Areas* (Curry County Ordinance No. 02-03).

2. Portions of the *Public Facilities Plan for Urban Growth Expansion: Brookings and Harbor Study Areas* are in need of amendment. Those portions of the Plan in need of amendment are attached hereto and incorporated by reference.

3. The *Storm and Surface Water Facilities Plan for Brookings-Harbor Area* (October of 2007), a copy of which is attached hereto and incorporated by reference, was prepared by HGE Inc., a private consulting firm. The development of this plan was a joint effort between the City of Brookings and Curry County using a technical assistance grant from the Oregon Department of Land Conservation and Development (DLCD). The *Storm and Surface Water Facilities*

CURRY COUNTY, OREGON CJ: 2008-443
Commissioners' Journal 12/09/2008 02:24:26 PM

Plan for the Brookings-Harbor area is a supplemental section to the *Public Facilities Plan for Urban Growth Expansion: Brookings and Harbor Study Areas* of the Curry County Comprehensive Plan.

4. The initial draft of the Plan was completed in December of 2006. The draft text was subsequently modified following input from the public, the Brookings City Council, the Board of Curry County Commissioners, and the City of Brookings and Curry County Planning Commissions.

5. With the concurrence of both the City Council and the Board of Curry County Commissioners, staff sent to DLCD the 45 day notice required under ORS 197.610 for post acknowledgment plan amendments for the proposed changes to the comprehensive plans.

6. Following public notice as required by law, the Brookings City Council and the Board of Curry County Commissioners held a joint hearing on the proposed amendments on Monday, December 8, 2008, at 5:30 P.M. at the Brookings City Hall.

7. On Tuesday, December 9, 2008, the Board of Curry County Commissioners approved the comprehensive plan amendment changes that are attached hereto and incorporated by reference.

Section 2: Amendments

The Curry County Comprehensive Plan (Ordinance No. 83-7, and its subsequent amendments) is amended as shown by the attached changes in the *Public Facilities Plan for Urban Growth Expansion for the Brookings and Harbor Study Areas* (Exhibit "A") and by adopting the attached *Storm and Surface Water Facilities Plan for Brookings-Harbor Area* with Addendums 1, 2 and 3.

The *Public Facilities Plan for Urban Growth Expansion: Brookings and Harbor Study Areas,* Appendix A: Facilities Maps/Projects Descriptions is further amended by removing the four (4) *"Storm Facilities"* maps.

Section 3: Severance Clause

If any section, subsection, sentence, clauses or phrases of this ordinance is, for any reason, held to be unconstitutional or otherwise invalid, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 4: Effective Date:

Consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon its passage.

DATED this 9th day of December, 2008.

CURRY COUNTY BOARD OF COMMISSIONERS

Georgia Yee Nowlin, Chair

Lucie La Bonté, Vice Chair

Marlyn Schafer, Commissioner

Approved as to Form:

M. Gerard Herbage
Curry County Legal Counsel

Patricia R. Cook
Recording Secretary

Effective Date: 12/9/08

EXHIBIT A

CITY OF BROOKINGS – PUBLIC FACILITIES PLAN

DRAFT REVISIONS
SEPTEMBER, 2008

Draft text is *bold and italicized.*
Text to be deleted has ~~strikethroughs~~.

Stormwater Needs

On _____, the City adopted the "Storm and Surface Water Facilities Plan for Brookings-Harbor Area." ~~*A public education program is recommended to disseminate information on the importance of preventing negative impacts from stormwater.*~~ ***In the Plan are design and development standards and proposed improvements to the storm drainage facility. There are also maps depicting the various basin areas, hydrologic/ hydraulic analysis, and the discussion of the effects on specific areas in the Plan.***

~~Using the Santa Barbara Urban Hydrograph computer model, pre and post development storm flows were calculated for each basin. A 25 year return period was assumed. The flows for North and South of the Chetco are as follows. (See figures in Appendix A for reference)~~

~~**North of the Chetco River (Brookings)**~~

~~Area Number~~	~~Acreage~~	~~Pre Development Peak Flow (cfs)~~	~~Post Development Peak Flow (cfs)~~
~~1~~	~~109~~	~~69~~	~~101~~
~~2~~	~~222~~	~~110~~	~~260~~
~~3~~	~~107~~	~~35~~	~~92~~
~~3a~~	~~152~~	~~43~~	~~115~~
~~3b~~	~~67~~	~~20~~	~~53~~
~~3c~~	~~15~~	~~7~~	~~17~~
~~4~~	~~343~~	~~90~~	~~235~~
~~4a~~	~~10~~	~~8~~	~~16~~
~~5~~	~~154~~	~~53~~	~~136~~
~~5a~~	~~164~~	~~60~~	~~151~~
~~5b~~	~~258~~	~~60~~	~~147~~
~~6~~	~~386~~	~~93~~	~~240~~
~~7~~	~~52~~	~~30~~	~~68~~
~~8~~	~~125~~	~~64~~	~~150~~
~~9~~	~~125~~	~~19~~	~~42~~

~~South of the Choice River (Harbor)~~

~~Area Number~~	~~Acreage~~	~~Pre Development Peak Flow (cfs)~~	~~Post Development Peak Flow (cfs)~~
~~10~~	~~204~~	~~61~~	~~161~~
~~10a~~	~~115~~	~~63~~	~~146~~
~~11~~	~~53~~	~~32~~	~~73~~
~~12&13~~	~~23~~	~~18~~	~~36~~
~~14~~	~~14~~	~~12~~	~~23~~
~~15~~	~~134~~	~~98~~	~~206~~
~~16~~	~~113~~	~~61~~	~~142~~
~~17~~	~~435~~	~~183~~	~~447~~
~~17a~~	~~342~~	~~151~~	~~368~~
~~17b~~	~~82~~	~~17~~	~~42~~
~~17c~~	~~54~~	~~17~~	~~44~~
~~18~~	~~257~~	~~116~~	~~280~~
~~19~~	~~19~~	~~14~~	~~30~~
~~20~~	~~226~~	~~35~~	~~74~~
~~21~~	~~42~~	~~40~~	~~72~~
~~22~~	~~446~~	~~59~~	~~122~~
~~23~~	~~90~~	~~60~~	~~132~~

Draft text is ***bold and italicized.***
Text to be deleted has ~~strikethroughs~~.

Storm Drainage Needs

Historically, runoff from the Harbor Hills drained down onto the Harbor Bench, over which flow a number of drainage swales. When the flow capacity of the swales was exceeded, the runoff flooded the flatland; the soils eroded from the hills onto the delta created farmland. Construction of Highway 101 altered this natural pattern by concentrating the more diffuse swale flows into culverts under the highway. The areas downstream of these culverts now convey additional, more concentrated flows with resultant flooding and erosion.

The storm drainage from newly developed areas creates additional impervious surfaces such as roads, roofs, sidewalks, and other open areas. Creating impervious surface increases the amount of runoff by allowing the water to concentrate faster. This increased runoff can exceed the capacity of the existing pipes, culverts, ditches, and natural drainage channels. The drainage from the newly developed areas must be collected and transported to the ocean without creating flooding, erosion, or negative environmental impacts.

Curry County currently provides storm drainage services for the study area. Curry County provides a low level of service, primarily ditch cleaning and culvert maintenance. Development in the urban growth areas will require much higher operational activities as maintain water quality features, detention facilities and substantial new amounts of pipes and/or ditches. A method of funding a utility to provide such services is critical in any selected alternative.

Improvements to the Harbor Bench drainage channels should be considered as a possible additional benefit to existing residents and new development, given the history of flooding in this area. As part of the development the culverts can be moved or altered to bring the drainage back to the natural configuration. Any detailed master plan should examine the feasibility of culvert changes in the areas south of the Chetco River. The Harbor Bench area is prime agricultural land. It is extremely sensitive to erosion and flood impacts. Special attention and planning must be given to this area.

On _____, the City adopted the "Storm and Surface Water Facilities Plan for Brookings-Harbor Area." Details concerning storm drainage needs can be found in that document.

Alternatives

To avoid adverse impacts created by development, ~~three~~ *five* strategies are generally utilized:

1. *There should be no post-development net increase in storm drainage discharge downstream.*
2. *Low impact development practices as described in the 2008 "Storm and Surface Water Facilities Plan" shall be implemented.*
3. The capacity of the downstream drainage infrastructure is improved to convey the increased flow. Usually this means constructing larger culverts and storm drains. Generally, the natural drainage channels are improved, but because of the study area's proximity to the ocean and the steep rocky terrain, these channel improvements may not be necessary.
4. A regional detention facility is constructed to capture the additional runoff and release the flow at a slower natural rate. A regional facility is normally associated with a single drainage way or creek.
5. An onsite detention facility is constructed for each individual development. The goal for a regional or onsite detention facility is that the runoff from the post-development condition be reduced to flow equaling the pre-development condition.

Recommendation

The numerous drainage basins in the study area were evaluated for use of the above methodologies. Pre- and post-development flows were estimated using the Santa Barbara Urban Hydrograph computer model. An appropriate strategy for each drainage basin was selected using flow generation, amount of existing development, the terrain, and other features. The areas north and south of the Chetco River were considered separately because conditions vary greatly between these study areas.

Detailed master plans for each basin must be prepared to refine facility sizing, horizontal and vertical alignments, and to refine alternatives. Each basin should have a master plan prepared prior to large-scale development in the drainage basin to coordinate improvement efforts.

The Storm and Surface Water facilities Plan for Brooking Harbor Area" contains the following policies:

- *Low impact development is preferred.*
- *Negative impacts to natural watercourses are to be avoided.*
- *Piping of a natural watercourses is to be avoided, where practicable.*
- *Protection of ground water sources is critical.*
- *Proposed facilities should address water quality impacts and mitigation measures.*
- *Erosion and sediment must be controlled using the City, County, and Department of Environmental Quality requirements.*
- *Stormwater discharges shall be maintained at current levels.*

- ~~*The City will consider a stormwater utility fee to fund needed maintenance on the existing facility.*~~
- *A public education program is recommended to disseminate information on the importance of preventing negative impacts from stormwater.*

The "Storm and Surface Water Facilities Plan for Brookings-Harbor Area" contains specific design and development standards and proposed improvements to the storm drainage facility.

North of the Chetco River (Brookings)

The storm drainage improvements north of the Chetco River will be located on steep, rocky terrain. The proposed Urban Growth Areas are generally located east of Highway 101. ~~The areas west of Highway 101, except for basins 5A and 5B, consist of steep cliffs that drop directly into the ocean. Basins 6 and 7 discharge directly to the Chetco River.~~

Since the increased runoff insignificantly impacts the natural channels west of Highway 101, the recommended improvements involve the following:

- constructing a local conveyance system;
- constructing a new collector or improving the existing channel;
- constructing a new culvert under Highway 101 (ODOT culverts are only designed for existing conditions, not anticipated development conditions), and
- erosion control improvements in the existing creek channels

~~Basins 5A and 5-B discharge into developed areas that appear prone to downstream damage.~~ With the high levels of development, regional detention facilities will be expensive. To mitigate the increased flows, onsite detention facilities for each development will be the best alternative to development impacts. Development would pay for these on-site detention facilities.

Discussion concerning specific basins is found in the "Storm and Surface Water Facilities Plan for Brookings-Harbor Area."

~~1. Basin 1~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain in Lone Ranch Creek drainage way~~
~~Improve culvert under Highway 101~~
~~Provide channel erosion improvements between Highway 101 and ocean~~

~~2. Basin 2~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain in Ram Creek drainage way~~
~~Improve culvert under Highway 101~~

~~Provide channel erosion improvements between Highway 101 and ocean~~

3. ~~Basin 3, 3A, 3C, and 3B~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain in drainage way~~
~~Improve culvert under Highway 101~~
~~Provide channel erosion improvements between Highway 101 and ocean~~

4. ~~Basin 4 and 4A~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain in Shy Creek drainage way~~
~~Improve culvert under Highway 101~~
~~Provide channel erosion improvements between Highway 101 and ocean~~

5. ~~Basin 5~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain or channel improvements in Harris Creek drainage way~~
~~Improve culvert under Highway 101~~
~~Provide channel erosion improvements between Highway 101 and ocean~~

6. ~~Basin 5A and 5B~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain in drainage way~~
~~Improve culvert under Highway 101~~
~~Provide channel erosion improvements between Highway 101 and ocean~~

7. ~~Basin 6~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain in Ferry Creek drainage way~~
~~Improve culvert under North Chetco Road~~
~~Provide channel erosion improvements between North Chetco Road and River~~

8. ~~Basin 7~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain in Hall Creek drainage way~~
~~Improve culvert under North Chetco Road~~
~~Provide channel erosion improvements between Chetco Road and River~~
~~Improve culvert under Highway 101~~

~~Provide channel erosion improvements between Highway 101 and ocean~~

South of the Chetco River (Harbor)

The study area south of the Chetco River provides a more complicated drainage situation. Basins ~~13 through 19~~ are located northeast of Highway 101 on the Harbor Hills. The terrain in the Harbor Hills basins are generally quite steep, then flatten out onto the Harbor Bench. Highway 101 provides a barrier between the Harbor Hills and the Harbor Bench.

The Harbor Bench is relatively flat and has a history of flooding. Many residences are located in this prime farmland, even though it is located outside the Urban Growth Boundary (UGB). Increasing runoff without proper controls would exacerbate an already serious flooding and erosion situation.

Unlike the areas north of the Chetco River, regional or onsite detention to service new development is the most suitable storm water control methodology for the areas discharging to the Harbor Bench. The Harbor Bench area is sensitive to erosion and flooding. The regional or on-site detention should be funded by the developer or through SDC accrual.

Basins ~~20 through 23~~ are also located on the Harbor Hills, but drain north to the Chetco River. Drainage of these basins requires use of the natural streams, so regional or onsite detention is the most likely scenario. Since the drainage crosses areas outside the UGB, constructing channel improvements or storm pipes would seem unlikely due to land use and environmental concerns. (Note: Drainage areas inside the UGB can be impacted with proper reconstruction and/or mitigation)

Discussion concerning specific basins is found in the "Storm and Surface Water Faciltities Plan for Brookings-Harbor Area."

~~The following improvements are recommended for Basins 13 through 23.~~

~~1. Basin 13~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drains or improve drainage way~~
~~Improve culvert under Highway 101~~

~~2. Basin 14~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

~~3. Basin 15~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

~~4. Basin 16~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

~~5. Basin 17 and 17A~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

~~6. Basin 17B~~

~~Provide local collection system to service new development~~
~~Construct main collector storm drain or improve drainage way~~
~~Provide erosion controls in natural channels~~

~~7. Basin 18~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

~~8. Basin 19~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

~~9. Basin 20~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Improve Jordan Creek drainage way~~

~~10. Basin 21~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Improve Carey Creek drainage way~~

~~11. Basin 22~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

~~12. Basin 23~~

~~Provide local collection system to service new development~~
~~Provide onsite detention for every development~~
~~Construct main collector storm drain or improve drainage way~~
~~Improve culvert under Highway 101~~

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Funding Sources

Implementing the infrastructure for the new urban growth areas requires capital funding. The following mechanisms are feasible for providing capital resources:

System Development Charges

Oregon law allows cities and service districts to charge system development charges for future growth. System development charges are fees that the developer pays to connect to the infrastructure system. The receipts from these fees can be saved, applied to bond payments, or applied to actual project expenses. Oregon law provides a specific methodology to justify charging these fees since the fees can only be applied towards growth related projects. System development charges are a common method of financing system growth.

Developer Financing

In cities and service districts that are unable to capitalize infrastructure improvements, developers have the ability to provide the improvements. Generally a developer provides the infrastructure improvements, transfers the facilities to the jurisdiction, then is reimbursed for the capacity outside the developers needs. Usually the developer is compensated on a per connection basis when the actual connection takes place. Generally the developer is not guaranteed full repayment.

Revenue Bonds

A common method of financing improvements to the infrastructure system is revenue bonding. Revenue bonds are repaid through rate charges for the service provided. The city or service district pledges to charge rates sufficient to repay the debt. In Oregon, a governing body such as a city council can implement revenue bonds, but revenue bonds can be referred to the voters through the petition process.

General Obligation Bonds

General obligation bonds assess a tax against property values in the taxation district as a capital source. This funding source was recently used by the City of Brookings to expand the wastewater treatment plant. General obligation bonds require a majority vote of the registered voters in the taxation district. The revenue stream can come from property tax receipts. However, the City is collecting user fees to pay for plant expansion. Use of general obligation bonds for development related projects presents obstacles. The requirement for a majority vote puts the project in the voters' hands. If there are no clear benefits to the public, then the bond issue can be defeated.

Grants

Federal or state grants do not appear to be feasible for providing the infrastructure. Many state and federal agencies provide grant assistance, but these funds are many aimed at assisting existing communities with long-standing problems. Unfortunately grant requests far outstrip available funds. With the current political climate, grant funds to provide infrastructure for new development appear unlikely.

Utility Fee

The City has adopted a stormwater utility fee to be added to monthly bills of properties within City limits to fund needed maintanance of stormwater facilities.

Recommendations

It is recommended that the City of Brookings and the Harbor Water PUD study and develop mechanisms for funding growth-related projects. These funding mechanisms will revolve around System Development Charges, Developer Contributions and Revenue Bonding. Other funding mechanisms should be explored where feasible or appropriate. The city will require all new development to pay for the expansion of services to the area being developed. While the use of bonds is a common revenue source for such projects, their inclusion in this document does not bind the city to their use. When bonds are determined to be the necessary mechanism to fund a project, the city shall bring the issue to the vote of the citizens.

CITY OF BROOKINGS – PUBLIC FACILITIES PLAN
DRAFT REVISIONS – JULY 8, 2008

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INTRODUCTION (PAGE 11)

Pump Stations

Flows from the entire Harbor collection system enter HSD pump station No. 4. Discharge from this station is to the Brookings WWTP by means of an 8-inch force main over the Chetco River. Space for additional force mains is available. Pump station No. 4 is rated at 1,000 gpm and 125 feet. The number one pump station has a capacity of 650 gpm at 95 feet. The other three pump stations are small and serve limited areas.

City of Brookings Storm Drainage System

The City of Brookings operates a storm drainage system within the city boundaries. ~~Eight~~ Drainage basins flow to the ocean or the Chetco River. Generally local area flows are conveyed via pipes to discharge points at surface drainage ways. The majority of the existing piping system is located in the western old portions of the city draining to the Chetco. Highway 101 presents a major flow obstruction to natural drainage pattern, requiring culvert crossings. Some limited historical flooding has occurred, but the problems are related to site-specific causes.

Curry County Storm Drainage System

Curry County services all storm drainage in the study areas north and south of the Chetco. The service level is mainly rural road maintenance that mainly consists of ditch culvert cleaning associated with road maintenance. All other drainage features are privately owned. The Harbor Bench area, which is outside the urban growth area, has experienced flooding and erosion due upstream growth and diversion of flows due to culvert placement.

HGE INC

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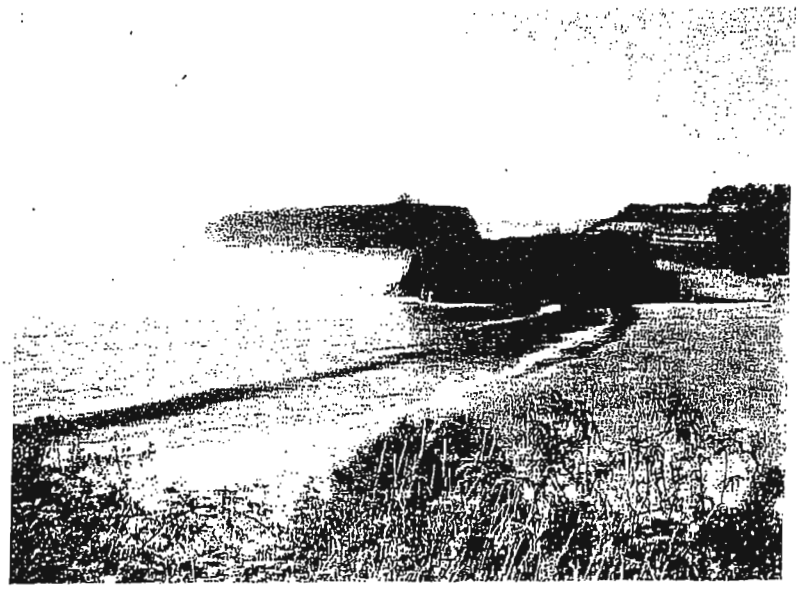
Project #:06.16

This binder is in the
"Attachments File"
in the County Clerk's vault

STORM AND SURFACE WATER FACILITIES PLAN for BROOKINGS-HARBOR AREA



for:

City of Brookings, Oregon

and

Curry County, Oregon

Final (Brookings) - October 2007
Draft - December 2006

This project has been funded in part with financial assistance provided by The Coastal Zone Management Act of 1972, as administered by The Ocean and Coastal Management Program, Department of Land Conservation and Development.

BEFORE THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY, OREGON

In the Matter of Text Amendments To the Curry County Comprehensive Plan to Allow Two Acre Lots or Parcels In the Rural Residential Zone	))))	ORDINANCE NO. 06-08

The Curry County Board of Commissioners ordains as follows:

Section 1: Findings

1. These amendments to the Curry County Comprehensive Plan Ordinance were initiated by the Board of Commissioners for the purpose of allowing two acre lots or parcels in the Rural Residential (RR) Zone.

2. Notice of the proposed amendments was forwarded to the Department of Land Conservation and Development (DLCD) on January 24, 2006.

3. The Board of Curry County Commissioners held public hearings on the amendments on April 18, 2006, June 7, 2006, July 17, 2006, September 5, 2006, September 28, 2006, October 16, 2006, and November 2, 2006. In addition, the Board of Curry County Commissioners held a work session with the Curry County Planning Commission on June 5, 2006, to discuss the proposed amendments.

4. Currently, the Rural Residential Zone has a minimum lot/parcel size of either 5 or 10 acres.

5. Under the proposed text amendments to the Curry County Comprehensive Plan and Zoning Ordinance, to change the minimum lot size from either 5 or 10 acres to 2 acres, an application for a zone change and for a Statewide Goal 2 (Land Use Planning) exception to Goal 14(Urbanization) would have to be filed and approved by the Board of Curry County Commissioners.

Section 2: Amendment

The Curry County Comprehensive Plan Ordinance (Ordinance 82-1, and its subsequent amendments) is amended as shown in Attachment "A" that is incorporated by reference.

CURRY COUNTY, GOLD BEACH, OR FEE $0.00 11/02/2006 #2006-C-488
RENEE KOLEN, COUNTY CLERK 02:55:43PM 1 OF 5

Section 3: Severance Clause

If any section, subsection, sentence, clauses or phrases of this ordinance is, for any reason, held to be unconstitutional or otherwise invalid, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 4: Effective Date:

Consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon its passage.

Dated this 2nd day of November, 2006.

CURRY COUNTY BOARD OF COMMISSIONERS

OPPOSED

Lucie LaBonté, Chair

Marlyn Schafer, Vice Chair

Ralph H. Brown, Commissioner

Approved as to Form:

M. Gerard Herbage
Curry County Counsel

Nancy Cretin
Recording Secretary

Effective Date: 11/2/2006

ATTACHMENT A

AMENDMENTS TO THE
CURRY COUNTY COMPREHENSIVE PLAN

The following text replaces the policies to Goal 14 (Urbanization) of the *Curry County Comprehensive Plan* to allow 2.0 acres lots/parcels in the Rural Residential (RR) zone.

Added text is in **bold**; Deleted text is ~~struck through.~~

1. Curry County defines "rural uses" as those uses which are located outside of urban growth boundaries including non-urban agriculture, forestry, open space, sparse settlement, small farms or acreage homesites with no or hardly any public services.

2. Curry County defines "urban uses" as those *which* are high intensity residential, commercial or industrial uses located inside urban growth boundaries, or outside urban growth boundaries where an exception to Goal *14* has been justified.

3. Curry County recognizes the urban growth boundaries of Port Orford, Gold Beach and Brookings and the mutually adopted Management Agreements for these areas.

4. The county will work to coordinate with the respective cities with regard to land use decisions affecting the urban growth areas.

5. The county will cooperate with the respective cities to review the established urban growth boundaries at the time of periodic review of the comprehensive plan. Such review will be based upon consideration of the following:

    a) demonstrated need to accommodate long-range urban population growth requirements;
    b) need for housing, employment opportunities, and livability;
    c) orderly and economic provision for public facilities and services;
    d) maximum efficiency of land uses within and on the fringe of the existing urban area;
    e) environmental, energy, economic and social consequences;

    f) retention of agricultural land, with class I being the highest priority for retention and class VI the lowest;

g) compatibility of the proposed urban uses with nearby agricultural activities.

6. Curry County recognizes the rural communities of the county as an additional *type* of development in the county and has determined boundaries for these communities based on the existing land use in the community and the requirements for a Goal 2 exception to Goal 14.

7. Curry County recognizes rural lands in the county and seeks to retain the rural character of these lands by limiting the development of these lands through rural zoning which will retain the rural character of these areas as reflected in the existing lot size pattern.

8. Curry County has zoned the lands located within the various urban growth areas for urban use and these urban land use zones shall not be applied to lands lying outside of a defined urban growth boundary.

9. Curry County has zoned lands located within the rural communities for either urban use or rural use based on Goal 2 exceptions to Goal 14 for the areas zoned for urban uses; the urban use zones Rural Industrial (RI), Rural Commercial (RC), Rural Resort Commercial (RRC) and Rural Community Residential (RCR-1 and RCR-2.5) shall not be applied to areas presently zoned for rural use unless a Goal 14 exception is approved by the county.

10. Curry County has zoned lands located within the various rural land exception areas for Rural Residential (**RR-2,** RR-5, **and** RR-10) use which limits rural residential development to dwellings on existing parcels and the development of new parcels at a density of **2-acre,** 5 acre or 10 acre minimum lot sizes. **Rural Residential–Two (RR-2) shall not be applied to areas presently zoned for rural use unless a Goal 14 exception is approved by the county. A zone change from RR-10 or RR-5 to RR-2 shall only be permitted in Rural Land Exceptions areas existing as of February 13, 1989 that are not within a current Urban Growth Boundary.**

11. Curry County recognizes that rural residential development in the Floras Lake area (Rural Lands Exception Areas I and 2) are unique because of the existence of the Pacific City Town Plats, therefore, development in these exception areas will be limited to one dwelling unit per contiguous ownership of record (all contiguous platted lots in single ownership) and further divisions of land will be limited to a 5 acre minimum lot size.

12. Curry County will limit commercial and industrial uses on rural lands to no more than a total of three separate commercial or industrial uses

on a single parcel presently zoned for such use; and not allow the rezoning of land to permit more than a total of three separate commercial or industrial uses within a single rural exception area excluding rural communities.

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY, OREGON

In the Matter of the Adoption of Revisions to the Goal 6 and Goal 7 Elements of the Curry County Comprehensive Plan to Include Policies for the Control of Erosion and Management of Stormwater; And in Response to Oregon Revised Statutes Chapter 195. 250 through 195.260 Regarding Rapidly Moving Landslides within the Land Use Jurisdiction of Curry County	)	ORDINANCE NO 06-01

The Curry County Board of Commissioners ordains as follows:

Section 1 **Findings:**

1. The Federal Government has imposed regulations regarding water quality upon the State of Oregon.

2. The State of Oregon has imposed regulations regarding water quality upon Curry County through the Environmental Protection Agency and the Department of Environmental Quality.

3. The State of Oregon has imposed regulations regarding development in areas of natural hazards through Statewide Planning Goal 7, and Oregon Revised Statutes 195.250 through 195.260.

4. The economy of Curry County is dependant upon healthy fisheries and development of land.

5. The health, safety and welfare of the citizens of Curry County is of primary importance, and safe development and water quality are key factors in that health, safety and welfare.

6. Development in Curry County must include consideration of all natural hazards, and include appropriate erosion control and stormwater management, as identified and regulated by Federal and State Law, in order to provide for the health, safety and welfare of the public.

CURRY COUNTY, GOLD BEACH, OR FEE $0.00 03/08/2006 #2006-C-90
RENEE KOLEN, COUNTY CLERK 03:55:33PM 1 OF 6

7. A formal application, CP/Z-0501, for a Post Acknowledgement Plan Amendment to allow adoption of Comprehensive Plan Policies to address these needs was filed by Curry County on April 18, 2005.

8. All preliminary hearings and other requirements of the Curry County Comprehensive Plan and Zoning Ordinance, and Oregon Administrative Rule for adoption of a Post-Acknowledgement Plan Amendment have been held, and fulfilled, in accordance with the procedural requirements of the Curry County Zoning Ordinance as of June 1, 2005.

9. After notice required by Oregon Revised Statute 215.503 to individual property owners; notice required by the Curry County Zoning Ordinance to affected Agencies, and due public notice in a newspaper of record, the Curry County Board of Commissioners has held a public hearing on these proposed comprehensive plan amendments on June 1, 2005, with continuances of the public hearing on July 22, 2005; December 5, 2005; February 15, 2006; and March 6, 2006, in accordance with State and Local Law.

Section 2 **Repeal and Adoption:**

A. Curry County Ordinance 82-1 (Curry County Comprehensive Plan) and its subsequent amendments are amended by:

1) Repealing the current section 6.6 of the Curry County Comprehensive Plan and adopting and inserting in its place the attached new Section 6.6 of the Curry County Comprehensive Plan, as shown in Exhibit A which is incorporated by reference.

2) Repealing the current section 7.3 of the Curry County Comprehensive Plan and adopting and inserting in its place the attached new section 7.3 of the Curry County Comprehensive Plan, as shown on Exhibit B, which is incorporated by reference.

Section 3 **Severance Clause:**

A. If any section, subsection, sentence, clauses or phrases of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 4 **Effective Date:** Consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon its passage

Dated this 6th day of March, 2006.

Approved as to form

M. Gerard Herbage
Curry County Counsel

CURRY COUNTY BOARD OF COMMISSIONERS

Lucie La Bonte, Chair

Marlyn Schafer, Vice Chair

Ralph Brown, Commissioner

Recording Secretary

Effective Date: March 6, 2006

Exhibit A

Curry County Comprehensive Plan – Goal 6 Element

Goal 6 - Air, Water and Land Resource Quality

GOAL: To maintain and improve the quality of the air, water and land resources of Curry County.

Policies

1. Curry County recognizes all applicable federal and state regulations concerning air, land and water quality and will cooperate with other governmental agencies in their implementation of these regulations to protect these resource qualities.

2. Curry County recognizes that development activities can cause loss of water quality, and can constitute a risk to the health, safety and welfare of its citizens due to transport of sediments and other pollutants by runoff, both at the time of construction, and from additional stormwater runoff generated by the creation of impervious surfaces, and from the loss of geological stability due to erosion and soil saturation. The County will limit these problems by establishing thresholds for vegetation removal and creation of impervious surfaces, and will allow development exceeding such thresholds only after approval of erosion control and stormwater management plans prepared by applicants or qualified professionals as specified by County Ordinance, and after all special construction techniques necessary for construction of the plan improvements have been designed by an engineer licensed by the State of Oregon.

3. Curry County maintains an environmental sanitation program for the regulation of on-site sewage disposal in order to protect water quality in the county.

4. Curry County will discourage activities which cause the degradation of the air, water or land resource quality in the implementation of its comprehensive plan and zoning ordinance.

5. Curry County has developed an active solid waste recovery and recycling program which promotes the recycling and proper disposal of solid waste in order to protect the quality of the air, water and land resources of the county.

6. Curry County will continue to promote the location of those businesses which may pose a noise nuisance problem into areas that are appropriate for such uses.

Exhibit B

Curry County Comprehensive Plan – Goal 7 Element

Goal 7 – Natural Hazards

GOAL: To protect life and property from natural disasters and hazards identified as potentially occurring in Curry County.

Policies:

1. Curry County has identified the location of potential natural hazard areas in the comprehensive plan and seeks to protect its citizens *and property* from harm *or damage* caused by natural hazards.

2. Curry County regulates the construction of structures through its administration of a State of Oregon-approved Building Code and will not permit the construction of a structure in a hazardous location as set forth under provisions of the building code.

3. Curry County has designated certain coastal areas which are subject to chronic natural hazards with a plans and zoning designation for "Beaches and Dune Conservation" which recognizes the limitations or these areas for development.

4. Curry County has identified lands in the comprehensive plan which are subject to periodic flooding in a series of flood hazard studies of local rivers, streams and lakes that were cooperatively prepared by the county and federal government, and will update these studies when new flood data becomes available.

5. Curry County participates in the National Flood Insurance Program for the protection of property located in the flood plains of local rivers, *streams and lakes* and will limit future development in flood plain areas under its Flood Damage Prevention Ordinance.

6. Curry County recognizes that areas within the county are subject to mass movements of soil and bedrock, including earthflow slump, and rapidly moving landslides, and has identified these areas and included maps of them in the comprehensive plan. The County will allow development in these areas only after the specific building site has been approved by a geologist or engineering geologist licensed by the State of Oregon and that all special construction techniques necessary to build on the site have been designed by an engineer licensed by the State of Oregon.

7. Curry County recognizes that many streams in the county have critical streambank erosion problems resulting in the loss of valuable resource land and has recognized the need for streambank protection structures along streams where the design of such structures is compatible with flood protection hydraulics and wildlife habitat values of the stream.

8. Curry County has developed an Emergency Services program to assist its citizens in the possibility of a general disaster by natural hazard such as earthquake, storm, or tsunami.

9. Curry County has an organized mutual aid agreement between all the city and rural fire departments in the county to suppress structural fires and minimize property loss.

COPY

BEFORE THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY, OREGON

In the Matter of an Ordinance Correcting a Scrivener's Error In Ordinance No. 05-07	)))	ORDINANCE NO. 05-10

The Board of County Commissioners of Curry County ordains as follows:

SECTION 1 FINDINGS

A. Following due notice, and a number of hearings, the Board of Curry County Commissioners on May 18, 2005, adopted Ordinance No. 05-07, "An Ordinance Amending the Curry County Comprehensive Plan To Adopt Amendments Related to DLCD Periodic Review."

B. At the time of adoption, the Board, in its motion, specifically excluded from the ordinance Task 4.1, "Adoption of Gravel Removal/Fish Habitat Study."

C. Ordinance No. 05-07, as signed, contains a scrivener's error in Section 8 in that it indicates that Task 4.1, "Adoption of Gravel Removal/Fish Habitat Study" is adopted.

D. However, consistent with the Board's motion, Exhibit "G", the actual Gravel Removal/ Fish Habitat Study, was not included within the ordinance that was signed and filed with the County Clerk.

E. Ordinance No. 05-07 needs to be corrected.

SECTION 2 CORRECTION OF SCRIVENER'S ERROR

Section 8, the reference to Task 4.1 "Adoption of Gravel Removal/Fish Habitat Study", is deleted from Ordinance No. 05-07.

FILED WITH
JUN 08 2005
CURRY COUNTY CLERK

SECTION 3 EMERGENCY CLAUSE

The Board of Commissioners for the County of Curry deems this Ordinance necessary for the immediate preservation and protection of the public peace, health, safety and general welfare for Curry County and declares an emergency exists, and this Ordinance shall be in full force and effect on June 17, 2005.

DATED this 6th day of June, 2005

CURRY COUNTY BOARD OF COMMISSIONERS

Ralph H. Brown, Chair

Lucie La Bonté, Vice Chair

Marlyn Schafer, Commissioner

First Reading 6/6/05
Second Reading None
Emergency Adoption Yes
Effective Date 6/17/05

Recording Secretary

Approved as to Form:

M. Gerard Herbage
Curry County Legal Counsel

BEFORE THE BOARD OF COUNTY COMMISSIONERS
IN AND FOR THE COUNTY OF CURRY, OREGON

AN ORDINANCE AMENDING THE CURRY COUNTY COMPREHENSIVE PLAN TO ADOPT AMENDMENTS RELATED TO DLCD PERIODIC REVIEW)	)))	ORDINANCE NO. 05-07

THE BOARD OF COUNTY COMMISSIONERS OF CURRY COUNTY ORDAINS as follows:

Section 1. **FINDINGS.**

A.) Curry County's Periodic Review Work Program was submitted to the Department of Land Conservation and Development (DLCD) on April 11, 1995, and approved on September 22, 1995 (Order No. 00491); and

B.) Work Tasks 1.2.1, 2.3, 3.1, 3.2, 4.1, and 4.2 of the Periodic Review Work Program require Curry County to address the Statewide Planning Goals by amending various sections of the comprehensive plan text, tables, figures and policies; and

C.) Pursuant to the requirements of LCDC the County has been required to review and amend its Comprehensive Plan to assure compliance with Statewide Planning Goals 2, 5, 11, and 12; and

D.) Public hearings have been held in furtherance of this objective in conformance with state law before the Curry County Planning Commission and the Board of Commissioners for Curry County; and

E.) The Board of County Commissioners has considered the recommendations of the Planning Commission and the public.

Section 2. **Task 1.2.1 ADOPTION OF REVISED FISH HABITAT & NON-GAME WILDLIFE HABITAT INVENTORY MAPS.**

The Wildlife Resources II (Essential Salmon Habitat and Nongame Wildlife) Map of the Curry County Comprehensive Plan is adopted as described in Exhibit "A", attached hereto and by this reference incorporated herein. The current Wildlife Resources II Map is repealed and replaced with Exhibit "A".

Section 3. **Task 2.3 ADOPTION OF A TRANSPORTATION SYSTEM PLAN.**

A Transportation System Plan for Curry County has been prepared to comply with Statewide Planning Goal 12 as described in Exhibit "B", attached hereto and by this reference incorporated herein. The Transportation System Plan is adopted as part of the Curry County Comprehensive Plan and shall be used in the implementation of Chapter 12 "Transportation" of the comprehensive plan and its policies.

FILED WITH
MAY 2 4 2005
CURRY COUNTY CLERK

Section 4. **Task 2.3 AMENDMENTS TO CHAPTER 8.**
Section 8.7 of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "C", attached hereto, and by this reference incorporated herein.

Section 5. **Task 2.3 AMENDMENTS TO CHAPTER 12.**
A new Chapter 12 of the Curry County Comprehensive Plan as described in Exhibit "D", attached hereto, and by this reference incorporated herein, is adopted. The current text of this Chapter is repealed and replaced with Exhibit "D".

Section 6. **Task 3.1 ADOPTION OF PUBLIC DRINKING WATER STUDY.**
An "Analysis of Public Drinking Water Needs and Supplies" study for Curry County has been prepared to comply with Statewide Planning Goal 11 as described in Exhibit "E", attached hereto and by this reference incorporated herein. The Analysis of Public Drinking Water Needs and Supplies is adopted as part of the Curry County Comprehensive Plan and shall be used in the implementation of Chapter 11 "Public Facilities and Services" of the comprehensive plan and its policies.

Section 7. **Task 3.2 - ADOPTION OF AMENDMENTS TO CHAPTER 11.**
A new Chapter 11 of the Curry County Comprehensive Plan as described in Exhibit "F", attached hereto, and by this reference incorporated herein, is adopted. The current text of this Chapter is repealed and replaced with Exhibit "F".

Section 8. **Task 4.1 - ADOPTION OF GRAVEL REMOVAL/FISH HABITAT STUDY.**
A study of "Gravel Removal Operations and Fish Habitat Planning; Curry County, Oregon" has been prepared to comply with Statewide Planning Goal 5 as described in Exhibit "G", attached hereto and by this reference incorporated herein. The Gravel Removal Operations and Fish Habitat Planning study is adopted as part of the Curry County Comprehensive Plan and shall be used in the implementation of Chapter 5 "Natural Resources" of the comprehensive plan and its policies.

Section 9. **Task 4.2 - ADOPTION OF AMENDMENTS TO CHAPTER 5.**
Section 5.12, Subsection B of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "H", attached hereto and by this reference incorporated herein.

Section 10. **SEVERABILITY.**
The provisions of this ordinance are severable. If any section, sentence, clause, or phrase of this ordinance or any exhibit thereto is adjudged to be invalid by a court of competent jurisdiction that decision shall not affect the validity of the remaining portions of this ordinance or exhibit thereto.

Section 11. **CODIFICATION.**
County Legal Counsel shall have the authority to format the provisions contained herein in a manner that will integrate them into the Curry County Comprehensive Plan consistent with the County Legal Counsel form and style for ordinance codification. Such codification shall include the authority to make format changes, to make changes in numbering systems and to make such numbering changes

consistent with interrelated ordinance sections. In addition, as part of codification of these ordinances, County Legal Counsel may insert appropriate legislative history reference. Any legislative history references included herein are not adopted as part of the substance of this ordinance, but are included for administrative convenience and as a reference. They may be changed to correct errors and to conform to proper style without action of the Board of Commissioners.

Section 12. **EFFECTIVE DATE.**
This ordinance, being adopted consistent with Oregon Revised Statute Chapters 197 and 215, shall take effect thirty days after its passage.

Dated this 18th day of May, 2005.

Reviewed as to form

M. Gerard Herbage
M. Gerard Herbage
Curry County Counsel

CURRY COUNTY BOARD OF COMMISSIONERS

Ralph H. Brown, Chair

Lucie La Bonte, Vice Chair

Absent
Marlyn Schafer, Commissioner

Nancy Chesser
Recording Secretary

Exhibit "A" on file at Curry County Clerk's Office Vault

COPY

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY, OREGON

In the Matter of the Adoption of Revisions to the Goal 8 Element of the Curry County Comprehensive Plan to Include a Master Plan for all Oregon State Parks within the Land Use Jurisdiction of Curry County in response to a request for a Post-Acknowledgement Plan Amendment, CP/Z-0201, from the Oregon Parks and Recreation Department	ORDINANCE NO 04-04

The Curry County Board of Commissioners ordains as follows:

Section 1 **Findings:**

1. Oregon Administrative Rule (OAR) Chapter 660, Division 34 addresses the requirements for adoption of a State Park Master Plan.

2. The Oregon Parks and Recreation Department has requested that Curry County adopt a Master Plan for all State Parks within the boundaries of Curry County that are within the County's Land Use Jurisdiction.

3. A formal application, CP/Z-0201, for a Post Acknowledgement Plan Amendment to allow adoption of a Master Plan for all State Parks within the boundaries of Curry County that are within the Land Use Jurisdiction of Curry County has been submitted by the Oregon Parks and Recreation Department.

4. All preliminary hearings and other requirements of Oregon Administrative Rule (OAR) 660-034 for adoption of a State Park Master Plan have been held, and fulfilled, in accordance with the procedural requirements of OAR 660-034 and the Curry County Zoning Ordinance as of January 7, 2003.

5. The Oregon Parks and Recreation Department has adopted an administrative rule in accordance with Oregon Administrative Rule (OAR) 660-034-0030 (1) and requested Curry County take final action in accordance with Oregon Administrative Rule (OAR) 660-034-0030 (2).

6. After due public notice the Curry County Board of Commissioners has held a public hearing on these proposed comprehensive plan amendments on February 17, 2004, in accordance with Oregon Administrative Rule (OAR) 660-034-0030 (2).

FILED WITH
FEB 24 2004
CURRY COUNTY CLERK

EXHIBIT B

Section 2 **Adoption:**

A. Curry County Ordinance 83-7 and its subsequent amendments are amended by:

1) Amending the Curry County Comprehensive Plan to adopt and incorporate the Curry County State Parks Master Plan 2003 as shown in Attachment A which is incorporated by reference, as an addendum and supporting document to the Curry County Comprehensive Plan; and

2) Amending the Curry County Comprehensive Plan Chapter 8, Section 8.7 (10) to adopt and incorporate language into Chapter 8 as shown in Attachment B, which is incorporated by reference.

Section 3 **Severance Clause:**

A. If any section, subsection, sentence, clauses or phrases of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 4 **Effective Date:**

A. This ordinance shall take effect March 17, 2004.

Dated this 17th day of February, 2004.

Approved as to form

M. Gerard Herbage
Curry County Counsel

CURRY COUNTY BOARD OF COMMISSIONERS

Marlyn Schafer, Chair

Ralph Brown, Vice Chair

Recording Secretary

Lucie La Bonte, Commissioner

First Reading: 2/17/04.

Second Reading: N/A.

Emergency Adoption: N/A.

Effective Date: 3/17/04.

8.7 PLAN POLICIES REGARDING RECREATION

Curry County recognizes the importance of meeting the recreational needs of its residents and visitors and adopts the following policies with regard to recreation:

1. Curry County seeks to provide recreational opportunities for the resident and tourist populations and for future increases in these populations by identifying areas suitable for such use in the plan.

2. Curry County supports improved transportation facilities to allow increased recreational use and encourage development of increased access to existing facilities and attractions.

3. Curry County encourages the private development of recreational facilities within the county.

4. Curry County encourages cluster development to maximize open space within residential developments.

5. Curry County desires to enhance recreational opportunities on public waters, recognized scenic areas, and Oregon Recreational Trails including provision of adequate support services.

6. Curry County will review the status of the Coast Range Hiking Trail at each scheduled plan update and determine whether there is sufficient information regarding the proposed trail in the comprehensive plan at that time.

7. Curry County will coordinate with the Oregon Department of Transportation in completing economic, social, environmental and energy consequence analysis as required by OAR 660-16-000 if and when a specific route is proposed for the incomplete trails.

8. Curry County encourages the protection and enhancement of fish and wildlife on public land to enhance the recreational appeal of the county.

9. Curry County will coordinate with the appropriate State and Federal agencies to identify and establish adequate recreational boating including boat ramps and access.

10. ~~Curry County has several undeveloped state parks and state recreation sites that, if developed with intensive uses, could adversely impact adjacent lands therefore the State of Oregon shall submit any developmental plans for those areas to Curry County for public review and conditional use permit as provided in the Public Facilities designation and land use zone.~~ The County adopts the Curry County State Parks Master Plan to serve as a guide to the future use and development of the state park properties located within the county pursuant to OAR 660 Division

34. The Curry County State Parks Master Plan provides for both the protection and public enjoyment of the state park resources and provides for the most appropriate recreation related uses for the parks based on resource opportunities and constraints, development opportunities and constraints, public recreation needs and Oregon Department of Parks and Recreation's role as a public recreation provider.

Through this process, the development proposals outlined in the Curry County State Parks Master Plan shall be allowed as an outright use subject to the development review procedures specified in the adopted master plan and applicable county ordinances.

11. Curry County recognizes those recreation trails or segments of trails identified 1C resources in the plan inventory as significant resources and will coordinate with ODOT for their future use and protection .

COPY

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

In the Matter of the Adoption of Revisions to the)
Curry County Comprehensive Plan to Amend the)
City of Gold Beach and Curry County Zoning Maps)
And the Curry County Comprehensive Plan In)
Response to City of Gold Beach Periodic Review)
Work Program Task # VII (b)

ORDINANCE NO 04-02

RECEIVED
FEB 27 2004

The Curry County Board of Commissioners ordains as follows:

Section 1 **Findings:**

1. ORS 197.628 to 197.636 addresses the requirements for Periodic Review.

2. The City of Gold Beach Periodic Review Work Program Task VII (b) requires the City to review lands designated for water-dependent use (Marine Activity) within the Port of Gold Beach to determine if there are lands that should not be designated for such use.

3. The Rogue River Estuary is within the jurisdiction of the City of Gold Beach where it lies within the City Limits, and within the jurisdiction of Curry County where it lies within the Urban Growth Area.

4. Oregon Administrative Rule (OAR) 660-037-0050 states that estuarine cities and counties shall calculate the minimum amount of shorelands to be protected for water-dependent use based on the "current water-dependent use" and the "former water-dependent use" lands within the entire estuary.

6. Curry County must coordinate with the City of Gold Beach on matters within the City's Urban Growth Area as required by an Urban Growth Area Joint Management Agreement between the City of Gold Beach and Curry County.

7. Calculations in accordance with OAR 660-037-0050 identified an amount of land zoned for water-dependent use in excess of that required to be protected for water-dependent use.

8. Property owners of land zoned for water-dependent use within the jurisdiction of Curry County requested rezone of an amount of land zoned for water-dependent use from Marine Activity (MA) to Light Commercial (C-1) in excess of two acres.

9. OAR 660-012-0060 requires Local Governments that do not have an adopted Transportation System Plan (TSP) show that a rezone of more than two (2) acres to commercial use does not significantly affect a transportation facility.

10. A traffic impact study for the property within the jurisdiction of Curry County proposed for rezoning to Light Commercial assumes that net buildable acres limit development on the property; and that trip generation is similarly limited; and concludes that because of these

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CURRY COUNTY CLERK

EXHIBIT A

factors the proposed rezone of property to Light Commercial will not significantly affect the concerned interchange of State Highway #101 with local roads serving the property.

11. The property to be rezoned to Light Commercial lies within the 100-year floodplain, and within the floodway, of the Rogue River; and Section 7.1-4 of the Curry County Flood Damage Prevention Ordinance prohibits structures designed for human habitation in, on, or over floodway areas.

12. Section 4.010 of the Curry County Zoning Ordinance prohibits development within certain distances of property lines for the property to be rezoned to Light Commercial.

13. Topography on the property to be rezoned to Light Commercial limits development on the property to be rezoned to Light Commercial due to steep slopes.

14. The net buildable acres assumptions in the Traffic Impact Study for the property to be rezoned to Light Commercial, a total of 42,000 square feet, are correct due to restrictions from floodway areas, setbacks and topography; therefore, the proposed rezone of property within the jurisdiction of Curry County to Light Commercial will not significantly affect the identified transportation facility.

15. The purpose of Statewide Planning Goal 12 is to "To provide and encourage a safe, convenient and economic transportation system."

16. No safety issues at the interchange of local roads and State Highway #101 have been identified; therefore, there are no transportation safety issues, and the proposed rezone is consistent with the purpose of Goal 12 as regards safety.

17. City and County planning staff have prepared amendments to their respective comprehensive plans to address the requirements of Work Program Task #VII (b) which are included as attachments to this ordinance.

18. After due public notice the Curry County Board of Commissioners held a public hearing on these proposed comprehensive plan amendments on February 2, 2004; and the hearing was continued to February 27, 2004; and a decision was made at the February 27, 2004 hearing.

Section 2 **<u>Adoption:</u>**

A. Curry County Ordinance 83-7 and its subsequent amendments be amended by:

1) Amending the Curry County Comprehensive Plan to adopt and incorporate the Goal 17 Inventory as shown in Attachment A which is incorporated by reference, as an addendum and supporting document to the Curry County Comprehensive Plan to address the City of Gold Beach Work Program Task #VII (b); and

2) Amending the Curry County Comprehensive Plan Chapter 16 to adopt and incorporate language into Chapter 16 as shown in Attachment B, incorporated by reference, as an addendum to the Comprehensive Plan. This attachment will be formatted and inserted into the Goal 16 element of the Comprehensive Plan at the current page #373, when codified at a later date. This amendment also addresses the City of Gold Beach Work Program Task VII (b).

Section 3 **Severance Clause:**

A. If any section, subsection, sentence, clauses or phrases of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 4 **Effective Date:**

A. This ordinance shall take effect March 2, 2004, and shall act in conjunction with comprehensive plan and zoning ordinance amendments adopted by the City of Gold Beach.

Dated this 27 day of February, 2004.

Approved as to form

M. Gerard Herbage
Curry County Counsel

CURRY COUNTY BOARD OF COMMISSIONERS

Marlyn Schafer, Chair

Ralph Brown, Vice Chair

Recording Secretary

Lucie La Bonte', Commissioner

First Reading: 2/2/04.

Second Reading: 2/27/04.

Emergency Adoption: N/A.

Effective Date: 3/2/04.

CURRY COUNTY COMPREHENSIVE PLAN

STATEWIDE PLANNING GOAL 17 INVENTORY

Background Information

City of Gold Beach Periodic Review Work Program Task VII (b) required the city to review lands designated for water-dependent use (Marine Activity) within the Port of Gold Beach to determine if there are lands that should not be designated for such use. The city and county planning staff met with the Manager of the Port of Gold Beach and private property owners within the Rogue River Estuary to determine which lands within the estuary are currently being utilized for water-dependent use and are planned for future water-dependent use. Lands formerly used for water-dependent use and converted to non water-dependent use, but retaining water-dependant zoning (Marine Activity (6-MA) within the City; and Marine Activity (MA) within the County) were also identified. The Port of Gold Beach and private property owners requested that these lands be re-zoned to a general commercial zoning to allow use in accordance with economic development plans.

Determination of Water-Dependent Shoreland Protection Acreage

Oregon Administrative Rule 660-037-0050 sets forth the procedure by which the City of Gold Beach and Curry County reviewed the amount of land within the Rogue River Estuary that needed to be protected for water-dependent use. This administrative rule states that estuarine cities and counties shall calculate the minimum amount of shorelands to be protected for water-dependent use based on the "current water-dependent use" and the "former water-dependent use" lands within the entire estuary. The city and county planning staff inventoried all lands zoned for water-dependent use (Marine Activity) within the Rogue River Estuary and separated them into three categories: 1) lands formerly in water-dependent use that are currently in water-dependent use, 2) lands formerly in water-dependent use that are currently not in water-dependent use, and 3) lands formerly not in water-dependent use and currently not in water-dependent use. The term "formerly" is with reference to 1981, the year the City of Gold Beach Comprehensive Plan was adopted. Figure 1 is a map of the Rogue River Estuary identifying all lands zoned for Marine Activity and the sites included in each of the categories described above. Table I describes each of the sites identified in Figure 1 with regard to name, property identification, zoning, acreage, current use and former use. Table II summarizes the changes in water-dependent land use between 1981 and 2000.

Based on information in the above-described inventory of water-dependent lands there is a total of 39 acres of land zoned for such use in the estuary. About 24 acres were used for water-dependent purposes in 1981; however, lands in water-dependent use in 2004 are approximately 13 acres. This reduction in land area used for water-dependent purposes within the estuary is largely related to the economic contraction of the commercial fishing and marine transportation

(loading docks, boat repair, etc) industries in the Gold Beach area.

Oregon Administrative Rule (OAR) 660-037-0060 requires that the city and county designate as water-dependent shorelands a sufficient acreage that is equal to or greater than the minimum water-dependent shorelands acreage calculated in the inventory described above. Table II indicates 23.8 acres of land in water dependent use in the Rogue River Estuary in 1981; therefore, that amount of land is the minimum that must be designated for Marine Activity within the entire estuary. As there are presently 39.4 acres zoned for Marine Activity within the estuary, 15.6 acres could be re-zoned for non-water dependent use.

Determination of Lands to be Re-zoned to Non-water Dependent Use Within City Limits

The city and county planning staff conferred with the Manager of the Port of Gold Beach and the other owners of land zoned for water dependent use within the city limits to determine which lands would be appropriate for re-zoning to other uses. The port identified an area that is currently zoned Marine Activity which lies between the jetboat office/docks and the marina restrooms and is not currently being used, nor is planned for future water dependent use. This area contains the city post office, a restaurant, a former cannery building which has been converted to commercial uses and a parking lot. The area is requested to be re-zoned to the Commercial (4-C) zoning designation because of the existing commercial and public uses located on the site. The owner of Site #1 (Kaufman) within the city has also requested that his property be re-zoned from Marine Activity because the usable portion of the property is located next to the adjacent road and the shoreline portion is at the shallow, un-navigable end of the boat basin. The acreage of the area requested for re-zoning within the port is approximately 5.7 acres and the Kaufman property is 1.2 acres in area; the total area within the city to be re-zoned is 6.9 acres. Re-zoning the two sites within the city from Marine Activity (6-MA) to Commercial (4-C) will not reduce the amount of land designated for water dependent use below the 23.8 acres that must be protected under Statewide Planning Goal 17.

Determination of Lands to be Re-zoned to Non-water Dependent Use Within the Urban Growth Area

The city and county planning staff conferred with the owners of land zoned for water dependent use within the City of Gold Beach Urban Growth Area to determine which lands would be appropriate for re-zoning to other uses. Southern Oregon Marine owns Site #13 & #14; Antunes owns Site #16; Prestininzi owns Site #17 & #18; Kammer owns Site #21; and Rogue River Properties owns Site #19 & #20. Portions of these areas are requested for change to Light Commercial (C-1) zoning designation because of existing and planned commercial and public uses located on the sites. Southern Oregon Marine requested 2.5 acres of their property be re-zoned to C-1 because it contains a welding shop and is otherwise used for open storage, equipment parking and general construction activities. Antunes requested that .40 acres of his property be rezoned to C-1 as the majority of the small parcel has not been in water-dependent use since prior to 1981, and the zone change will fit the historical and present use as non-water dependent, and allow for establishment of an RV Park. Prestininzi has requested that 8 acres of his property be rezoned to C-1 because it has been converted to commercial uses, and

development plans are for an RV Park. Kammer has requested that .4 acres of his property be rezoned to C-1 because the property has been converted to commercial use, supporting storage buildings. Rogue River Properties has requested .8 acres of their property be rezoned to C-1 because of future development plans. The acreage of these sites requested for re-zoning is approximately 12.1 acres. Re-zoning the area requested from Marine Activity (MA) to Light-Commercial (C-1) in conjunction with the rezoning of land within City Limits as described above, would reduce the amount of land designated for water dependent use below the 23.8 acres that must be protected under Statewide Planning Goal 17.

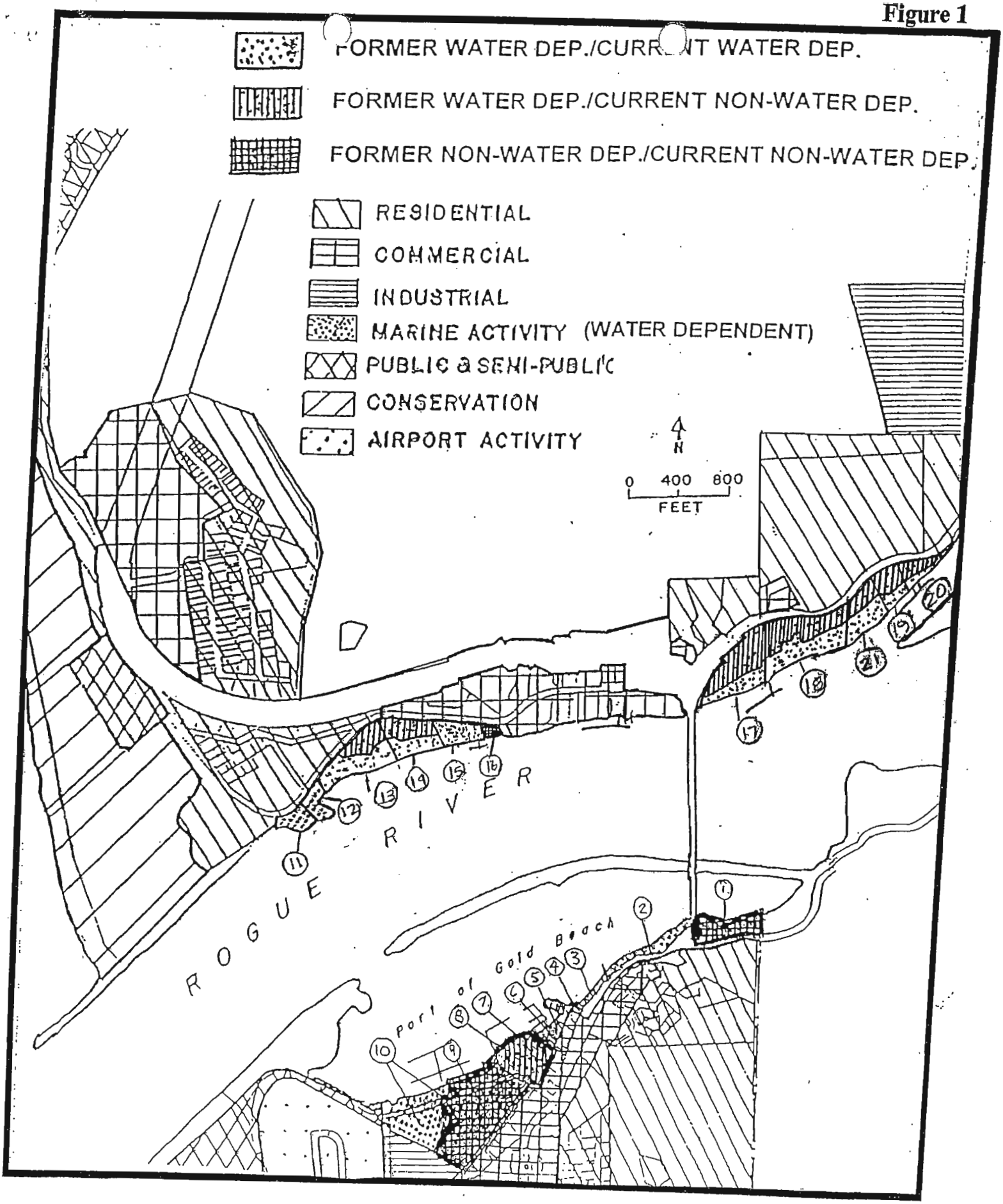
Determination of Lands to be Re-zoned to Water Dependent Use Within City Limits

Table III describes site-specific changes in zoning designation, including that of Site #A. Because the proposed re-zoning of 19 acres leaves only 20.3 acres in Marine Activity (MA) zoning and would be inconsistent with Goal 17, the city and county propose re-zoning of Site #A, approximately 11 acres in size, from existing Public Facilities (PF) to Marine Activity (MA). This enables approval of requests of property owners and preservation of an amount of land above the 23.8 acres required by Goal 17 for water-dependent uses.

Site A is within the Port of Gold Beach, and the Gold Beach City Limits, and is designated for future airport use in the current Gold Beach Municipal Airport Master Plan. The Port and City are in the process of amending the Airport Master Plan, in part to remove the 11 acres from designation as future airport use; the Port Commission provided a resolution to the city and county declaring the same, and declaring support for the proposed rezone to Marine Activity. This property has historically been used for dredge spoil disposal, recreation, and otherwise has been in water-dependant use. Re-zoning this 11-acre area from Public Facilities (PF) to Marine Activity (6-MA); and re-zoning the 6.9 acres within the City from Marine Activity (6-MA) to Commercial (4-C); and rezoning the 12.1 acres proposed by private property owners from Marine Activity (MA) to Light Commercial (C-1) would establish a total of 31.39 acres designated for water-dependant use by remaining in MA zoning; above the 23.8 acres that must be protected under Statewide Planning Goal 17.

Figure 2 is a map amending the City of Gold Beach Zoning Map, and the Curry County Zoning Map, to re-zone the areas described above from Marine Activity (6-MA & MA) to Commercial (4-C & C-1); and from Public Facilities (PF) to Marine Activity (6-MA).

Figure 1



ROUGUE RIVER ESTUARY WATER DEPENDENT ZONED LANDS

TABLE I

CURRENT WATER DEPENDENT SITES IN THE ROGUE RIVER ESTUARY

Site #	Map/Taxlot	Owner	Current Zoning	Acres Zoned MA Current*	Current Use Acres WD	Current Use	1981 Acres WD	1981 Use
	City Sites							
1	36-14-31BB/102,110	Kaufman	6-MA	1.22	0.00	Vacant	0.00	Vacant
2	36-14-31BB/101	Port of Gold Beach	6-MA	2.16	0.00	Open space, walkway	0.00	Vacant
3	36-14-31BB/200	Port of Gold Beach	6-MA	0.80	0.00	Open space, walkway	0.00	Vacant
4	36-15-36AD/200	Port of Gold Beach	6-MA	0.59	0.59	Parking	0.00	Vacant
5	36-14-36AD/301	Port of Gold Beach	6-MA	1.30	1.30	Marine fuel, parking	1.30	Parking
6	36-14-36AD/400	Port of Gold Beach	6-MA	0.60	0.60	Parking	0.60	Parking
7	36-14-36AD/601	Port of Gold Beach	6-MA	0.40	0.20	Jetboat dock,stores,restaurant	0.40	Jetboat dock, fish buying stn, cannery
8	36-14-36AD/802	Port of Gold Beach	6-MA	2.53	0.00	Restaurant, parking	0.50	Parking
9	36-14-36AD/900	Port of Gold Beach	6-MA	0.35	0.00	Vacant	0.00	Vacant
10	36-14-36/100	Port of Gold Beach	6-MA	5.60	3.00	Boat ramp,PO, restrm,plaza, parkg	2.60	Boat ramp, parking
	Total City sites			**15.55**	**5.69**		**5.40**	
	County Sites							
11	36-15-25DC/2200	Port of Gold Beach	MA	0.28	0.00	Vacant	0.00	Vacant
12	36-15-25DC/700	S. Oregon Marine	MA	0.70	0.70	USCG station	0.70	UCCG station
13	36-15-25DC/800	S. Oregon Marine	MA	2.57	0.00	Welding shop	2.57	Timber products dock, warehouse
14	36-15-25DC/900	S. Oregon Marine	MA	2.63	0.00	Vacant	2.63	Log & lumber storage for dock
15	36-15-25DA/800	S. Oregon Marine	MA	1.13	1.13	Bridge material storage	1.13	Log & lumber storage for dock
16	36-15-25DA/900	Antunes	MA	0.50	0.00	Dwelling	0.00	Office, restaurant
17	36-14-30/600	Prestininzi	MA	4.68	0.00	Mobile home	0.00	Vacant
18	36-14-30/700	Prestininzi	MA	6.35	1.85	Dock, storage bldg	6.35	Deck, boat bldg shop
19	36-14-30/800	Rogue River Prop	MA	1.40	1.00	Jetboat dock, offices, parking	1.40	Jetboat dock, offices, parking
20	36-14-30/801	Rogue River Prop	MA	1.50	1.10	Jetboat dock, offices, parking	1.50	Jetboat dock, offices, parking
21	36-14-30/802	Kammer	MA	2.10	1.70	Jetboat dock, offices, parking	2.10	Jetboat dock, offices, parking
	Total County sites			**23.84**	**7.48**		**18.38**	
	TOTAL ESTUARY SITES			**39.39**	**13.17**		**23.78**	

* Ac source from Assessor

January 2004

TABLE II

SUMMARY OF CHANGES IN WATER DEPENDENT LANDS
ROGUE RIVER ESTUARY, OREGON

	ROGUE ESTUARY WATER DEPENDENT LANDS		
Description	**1981**	**Current**	**Acreage Change**
Acres Zoned Water Dependent:	39.39	39.39	0
Acres Used Water Dependent	23.78	13.17	-10.61
Acres Used Non-Water Dependent	0.50	21.74	21.24
Acres Vacant	15.11	4.48	-10.63

TABLE III

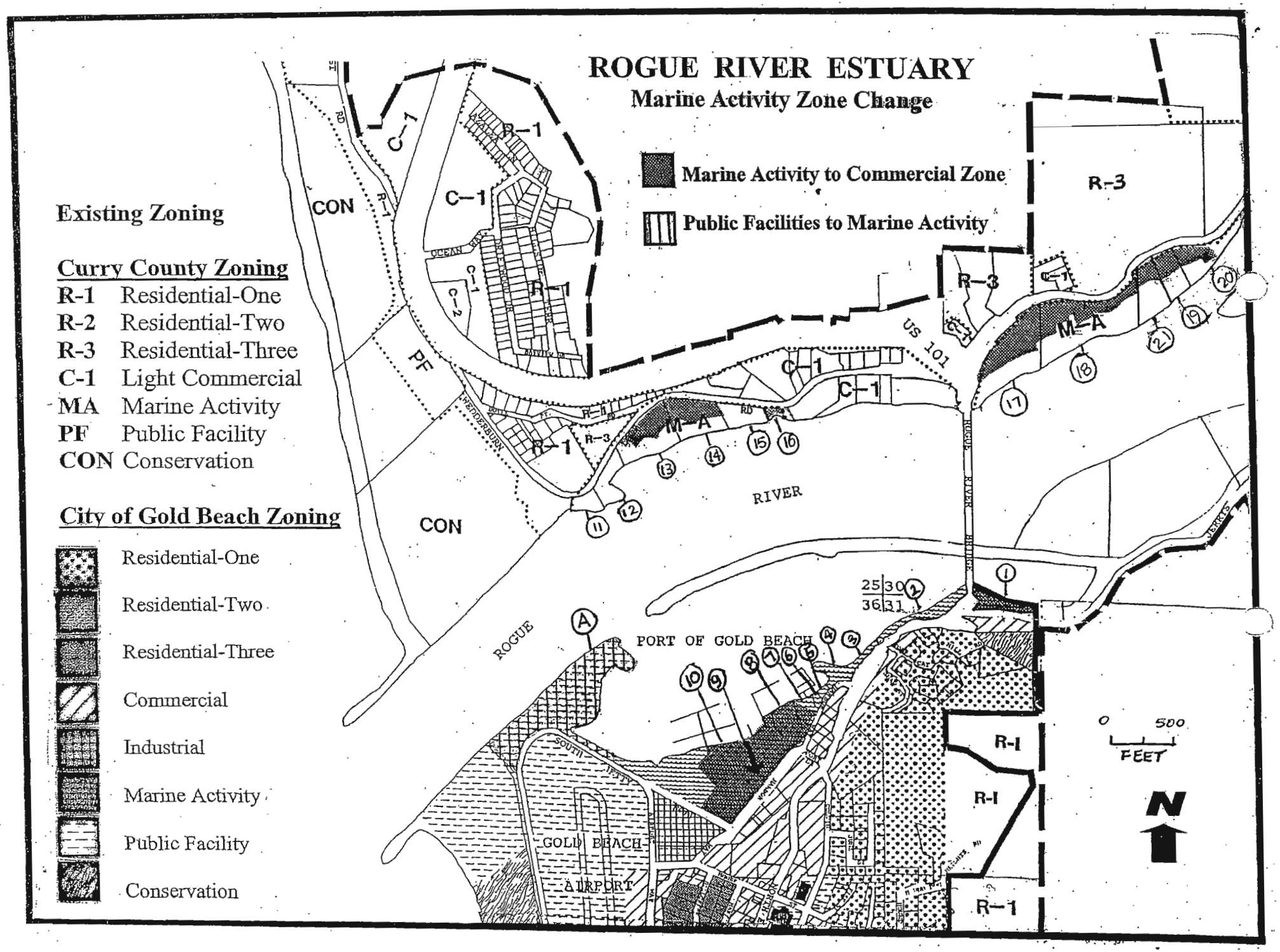
SITE SPECIFIC WATER DEPENDENT ZONING ACREAGE CHANGES 2004

Site #	Map/Taxlot	Owner	Current Zoning	Total Acres MA Current*	Current Use	MA Ac Remove	MA Ac Add	Requires Zone CHG	Total Ac MA Proposed
	City Sites								
1	36-14-31BB/102,110	Kaufman	6-MA	1.22	Vacant	-1.22		X	0.00
2	36-14-31BB/101	Port of Gold Beach	6-MA	2.16	Open space, walkway	0.00			2.16
3	36-14-31BB/200	Port of Gold Beach	6-MA	0.80	Open space, walkway	0.00			0.80
4	36-15-36AD/200	Port of Gold Beach	6-MA	0.59	Parking	0.00			0.59
5	36-14-36AD/301	Port of Gold Beach	6-MA	1.30	Marine fuel, parking	0.00			1.30
6	36-14-36AD/400	Port of Gold Beach	6-MA	0.60	Parking	0.00			0.60
7	36-14-36AD/601	Port of Gold Beach	6-MA	0.40	Jetboat dock,stores,restaurant	-0.20		X	0.20
8	36-14-36AD/802	Port of Gold Beach	6-MA	2.53	Restaurant, parking	-2.53		X	0.00
9	36-14-36AD/900	Port of Gold Beach	6-MA	0.35	Vacant	-0.35		X	0.00
10	36-14-36/100	Port of Gold Beach	6-MA	5.60	Boat ramp,PO, restrm,plaza, parkg	-2.60			3.00
A	36-14-36/100	Port of Gold Beach	7-PF	0.00	Dredge spoils, recreation	0.00	11.00	X	11.00
	Total City sites			**15.55**		**-6.90**	**11.00**		**19.65**
	County Sites								
11	36-15-25DC/2200	Port of Gold Beach	MA	0.28	Vacant	0.00			0.28
12	36-15-25DC/700	S. Oregon Marine	MA	0.70	USCG station	0.00			0.70
13	36-15-25DC/800	S. Oregon Marine	MA	2.57	Welding shop	-1.25		X	1.32
14	36-15-25DC/900	S. Oregon Marine	MA	2.63	Vacant	-1.25		X	1.38
15	36-15-25DA/800	S. Oregon Marine	MA	1.13	Vacant	0.00			1.13
16	36-15-25DA/900	Antunes	MA	0.50	Dwelling	-0.40			0.10
17	36-14-30/600	Prestininzi	MA	4.68	Mobile home	-3.50		X	1.18
18	36-14-30/700	Prestininzi	MA	6.35	Dock, storage bldg	-4.50		X	1.85
19	36-14-30/800	Rogue River Prop	MA	1.40	Jetboat dock, offices, parking	-0.40		X	1.00
20	36-14-30/801	Rogue River Prop	MA	1.50	Jetboat dock, offices, parking	-0.40		X	1.10
21	36-14-30/802	Kammer	MA	2.10	Jetboat dock, offices, parking	-0.40		X	1.70
	Total County sites			**23.84**		**-12.10**			**11.74**
	TOTAL ESTUARY SITES			**39.39**		**-19.00**	**11.00**		**31.39**

* Ac source from Assessor

January 2004

Figure 2


ROGUE RIVER ESTUARY
Marine Activity Zone Change
Marine Activity to Commercial Zone
Public Facilities to Marine Activity
Existing Zoning
Curry County Zoning
R-1 Residential-One
R-2 Residential-Two
R-3 Residential-Three
C-1 Light Commercial
MA Marine Activity
PF Public Facility
CON Conservation
City of Gold Beach Zoning
Residential-One
Residential-Two
Residential-Three
Commercial
Industrial
Marine Activity
Public Facility
Conservation
CON
PF
C-1
C-2
R-1
R-3
M-A
US 101
ROGUE RIVER
PORT OF GOLD BEACH
GOLD BEACH AIRPORT
SOUTH JETTY
0 500
FEET
N

Added text is **bolded**; Deleted text is *italicized*

Statewide Planning Goal 17 requires that, "Shorelands in urban and urbanizable areas especially suited for water-dependent (ESWD) uses shall be protected for water-dependent recreational, commercial and industrial uses". Four criteria for identification of ESWD areas are suggested in the goal as follows:

1. Deep water close to shore with supporting land transport facilities suitable for ship and barge facilities;

2. potential for aquaculture;

3. protected areas subject to scour which would require little dredging for use as marinas; and

4. potential for recreational utilization of coastal water or riparian resources.

Three ESDW areas in the lower Rogue River Estuary have been identified. The first ESWD area is the Sause Brothers site on the north bank in Wedderburn. This site is adjacent to the authorized channel and has supporting land transport facilities. The channel adjacent to the site is not currently maintained, but may be in the future. The second and third ESWD areas are the gravel area just west of the boat basin and the boat basin parking lot/back-up land, respectively. These areas are considered as having "potential for recreational utilization of coastal water".

As of initial adoption of the Comprehensive Plan there were three ESDW areas identified in the lower Rogue River Estuary. The first ESWD area was identified as the Sause Brothers (now Southern Oregon Marine) site on the north bank in Wedderburn. This site was characterized as adjacent to the existing channel and with supporting land transport facilities; it was noted that the channel was not currently maintained, but may be in the future. The channel has not been maintained since 1984, and there are no plans to do so. The site has not been used for water-dependant use since adoption of the original plan, and currently supports a welding shop and outside storage area; basically it has been converted to commercial uses with the exception of the shoreline landward to a point 75' inland from the top of the bank. All land on the site landward of the 75' distance has been removed from water-dependant designation.

The second and third ESWD areas were a gravel area just west of the boat basin and the boat basin parking lot. These areas were and are considered "close" to deep water (also adjacent to the ten-foot boat basin channel), and considered as having "potential for recreational utilization of coastal water". Since plan adoption major changes have occurred within these areas, with much of the area converted to commercial use. Figure 16.3.L.1 indicates the changes in zoning designation reflecting the changes in use.

Curry County has lost significant amounts of its timber and fishing industries; only remnants remain. Therefore, the "industrial-commercial" uses of past decades have been converted more towards "tourist-commercial" uses. The uses present now in the Estuary are still water-dependant, only the type of user has changed, necessitating change in the structure of the plan.

For complete transp. system Plan see attached exhibits in vault.

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

SEP - 9

CURRY COUNTY CLERK

In the Matter of the Adoption of Revisions)
to the Curry County Comprehensive Plan)
to Amend the City of Brookings Urban)
Growth Boundary (UGB) in Response to)
DLCD Modified Periodic Review Work)
Program (DLCD Orders #00001 & 00973)

ORDINANCE NO. 02-03

COMMISSIONERS JOURNAL
VOL# 2002 DOC# 3

Whereas, ORS 197.628 to 197.636 addresses the requirements for Periodic Review; and

Whereas, Curry County was notified August 14, 1992, by the Department of Land Conservation and Development (DLCD) of its requirement to complete a coordinated plan for the Brookings-Harbor area under Periodic Review of the City of Brookings Comprehensive Plan; and

Whereas, Task 1 of the Periodic Review Work Program approved by the Department of Land Conservation and Development on July 21, 1993, is for the city and county to adopt an amended Urban Growth Boundary (UGB) with supportive findings and adopt a city/county UGB Management Agreement;

Whereas, Curry County responded to Periodic Review Work Program Task 1 with the adoption of an amended Urban Growth Boundary (UGB), amendments to its comprehensive plan text and policies with findings supportive of the amended UGB and a Urban Growth Area Joint Management Agreement with the adoption of Ordinance No. 95-10 on August 21, 1995.

Whereas, the Oregon Department of Land Conservation and Development (DLCD) reviewed the amended UGB and the adopted comprehensive plan amendment and remanded the amendments to the City of Brookings and Curry County for further action with DLDC Periodic Review Work Task Remand Order No. 00546 dated January 12, 1996.

Whereas, DLCD Remand Order No. 00546 was appealed by Fred Hummel et. al. to the Oregon Land Conservation and Development Commission (LCDC) which reviewed the DLCD Order and remanded it to the City and County with amendments as LCDC Order No. 96-WKTASK-00601 dated April 26, 1996.

Whereas, LCDC Order No. 96-WKTASK-00601 was appealed by Fred Hummel, et. al. to the Oregon Court of Appeals which reviewed the LCDC Order and remanded it to LCDC in the decision of Hummel, et. al. v. LCDC and City of Brookings, et. al. (CA A93624) dated February 11, 1998.

Whereas, following the Court of Appeals decision in Hummel, et. al. v. LCDC and City of Brookings, et. al., Hummel et. al. filed a petition for review with the Oregon Supreme Court which declined review so it was remanded to the City and County for response to the remand issues in LCDC Order No. 96-WKTASK-00601.

Whereas, the Oregon Department of Land Conservation and Development reviewed and approved the amended City of Brookings UGB and the adopted Curry County comprehensive plan amendment and supportive findings in response to the remand issues in LCDC Order No. 96-WKTASK-00601 on May 22, 2001.

Whereas, the City and County planning staff have now prepared amendments to the comprehensive plan text and policies to address the remaining tasks in the City of Brookings modified Periodic Review Work Program (DLCD Orders #00001 & 00973) which are included as attachments to this ordinance.

Whereas, after due public notice the Curry County Board of Commissioners has held a public hearing on these proposed comprehensive plan amendments on August 30, 2002; and

Now, Therefore, the Curry County Board of Commissioners ordains as follows:

A. That Curry County Ordinance 83-7 and its subsequent amendments be amended applicable only to the land within Curry County that is within the City of Brookings Urban Growth Boundary and outside of the City of Brookings City Limits by:

1) Amending the Curry County Comprehensive Plan to adopt and incorporate the Curry County Transportation System Plan as shown in Attachment A, which is incorporated by reference to address Work Program Task #4; and

2) Amending the Curry County Comprehensive Plan to adopt and incorporate the City of Brookings Transportation System Plan as shown in Attachment B, which is incorporated by reference, as a supporting document to the Curry County Comprehensive Plan to address Work Program Task #4; and

3) Amending the Curry County Comprehensive Plan Chapter 12 (Transportation) by deleting the existing Chapter 12 and adding a new Chapter 12 as shown in Attachment C, which is incorporated by reference, to include reference to the Curry County Transportation System Plan to address Work Program Tasks #2; and

4) Amending the Curry County Comprehensive Plan to adopt and incorporate the City of Brookings Public Facilities Plan as shown in Attachment D, which is incorporated by reference, as a supporting document to the Curry County Comprehensive Plan to address Work Program Task #3; and

5) Amending the Curry County Comprehensive Plan to adopt and incorporate the supporting "City of Brookings Water Conservation Plan", "Water Curtailment Ordinance" and a Goal 5 ESEE analysis, as shown in Attachment E, which is incorporated by reference, as supporting documents to the Curry County Comprehensive Plan to address Work Program Task #2; and

6) Amending the Curry County Comprehensive Plan Chapter 11 (Public Facilities and Services) by deleting the existing Chapter 11 and adding a new Chapter 11 as shown in Attachment F, which is incorporated by reference, to include reference to the City of Brookings Public Facilities Plan to address Work Program Tasks #2; and

7) Amending the Curry County Comprehensive Plan Section 14.8 within Chapter 14 (Plan Policies Regarding Urbanization) by deleting existing Policy #15 and adding a new Policy #15 to address water withdrawal from the Chetco River and fish resources as shown in Attachment G which is incorporated by reference to address Work Program Task #2.

B. That consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon September 29, 2002 in order to take effect simultaneously with comprehensive plan and zoning ordinance amendments adopted by the City of Brookings.

Dated this 30th day of August, 2002.

Approved as to form

M. Gerard Herbage
Curry County Counsel

Recording Secretary

CURRY COUNTY BOARD OF COMMISSIONERS

Rachelle D. Schaan, Chair

Lucie La Bonte', Vice Chair

Marlyn Schafer, Commissioner

COMMISSIONERS JOURNAL
VOL# 2001 DOC# 031

JAN 24 2001
COUNTY COUNTY CLERK

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

In the Matter of the Adoption of Revisions to the Curry County Comprehensive Plan to Amend the City of Brookings Urban Growth Boundary (UGB) in Response to LCDC Remand Order # 96-WKTASK-00601)	ORDINANCE NO 01-01

Whereas, ORS 197.628 to 197.636 addresses the requirements for Periodic Review; and

Whereas, Curry County was notified August 14, 1992, by the Department of Land Conservation and Development (DLCD) of its requirement to complete a coordinated plan for the Brookings-Harbor area under Periodic Review of the City of Brookings Comprehensive Plan; and

Whereas, Task 1 of the Periodic Review Work Program approved by the Department of Land Conservation and Development on July 21, 1993, is for the city and county to adopt an amended Urban Growth Boundary (UGB) with supportive findings and adopt a city/county UGB Management Agreement;

Whereas, Curry County responded to Periodic Review Work Program Task 1 with the adoption of an amended Urban Growth Boundary (UGB), amendments to its comprehensive plan text and policies with findings supportive of the amended UGB and a Urban Growth Area Joint Management Agreement with the adoption of Ordinance No. 95-10 on August 21, 1995.

Whereas, the Oregon Department of Land Conservation and Development (DLCD) reviewed the amended UGB and the adopted comprehensive plan amendment and remanded the amendments to the City of Brookings and Curry County for further action with DLDC Periodic Review Work Task Remand Order No. 00546 dated January 12, 1996.

Whereas, DLCD Remand Order No. 00546 was appealed by Fred Hummel et. al. to the Oregon Land Conservation and Development Commission (LCDC) which reviewed the DLCD Order and remanded it to the City and County with amendments as LCDC Order No. 96-WKTASK-00601 dated April 26, 1996.

Whereas, LCDC Order No. 96-WKTASK-00601 was appealed by Fred Hummel, et. al. to the Oregon Court of Appeals which reviewed the LCDC Order and remanded it to LCDC in the decision of Hummel, et. al. v. LCDC and City of Brookings, et. al. (CA A93624) dated February 11, 1998.

Whereas, following the Court of Appeals decision in Hummel, et. al. v. LCDC and City of Brookings, et. al., Hummel et. al. filed a petition for review with the Oregon Supreme Court which declined review so it was remanded to the City and County for response to the remand issues in LCDC Order No. 96-WKTASK-00601.

Whereas, the City and County planning staff have prepared amendments to the comprehensive plan text and policies to address the remand issues in LCDC Order No. 96-WKTASK-00601 which are included as attachments to this ordinance.

Whereas, after due public notice the Curry County Board of Commissioners has held a public hearing on these proposed comprehensive plan amendments on November 8, 2000 and November 28, 2000; and

Now, Therefore, the Curry County Board of Commissioners ordains as follows:

A. That Curry County Ordinance 83-7 and its subsequent amendments be amended by:

1) Amending Section 9.4 (Commercial Land Needs) to include reference to the Findings Document "Remand Issue # 1 - Commercial Acreage" by John Bischoff as shown in Attachment A which is incorporated by reference and addresses remand Issue # 1 ; and

2) Amending Section 14.8 (Plan Policies Regarding Urbanization) to add Policy # 15 to address water withdrawal from the Chetco River and fish resources as shown in Attachment B which is incorporated by reference and addresses remand Issue # 2; and

3) Amending the Curry County Comprehensive Plan Section 3.8.1 (Harbor Bench Farm District) to include reference to the Findings Documents which provide findings which substantiate that neither the Ashcraft nor the Itzen parcels are suitable for farm use, are necessary for or contribute to the farm use on adjacent farm lands, or are needed to buffer adjacent farm lands as shown in Attachment C (Ashcraft Parcel) and Attachment D (Itzen Parcel) which are incorporated by reference and address remand Issue # 3; and

4) Amending the Curry County Comprehensive Plan Section 3.8.1 (Harbor Bench Farm District) to include reference to the Findings Document and Conclusions "City of Brookings UGB Remand Issue # 4 - Harbor Bench Farmland" by Chuck Nordstrom and John Bischoff as shown in Attachment E which is incorporated by reference and addresses remand Issue # 4; and

5) Amending the Curry County Comprehensive Plan Section 3.8.1 (Harbor Bench Farm District) to amend plan policies related to the use of lands within the farm district as shown in Attachment E which is incorporated by reference and addresses remand Issue # 4; and

6) Amending Section 14.8. (Plan Policies Regarding Urbanization) Policy #14 shall be amended as shown in Attachment F which is incorporated by reference and addresses remand Issue # 5.

B. That consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon January 22, 2001 in order to take effect simultaneously with comprehensive plan and zoning ordinance amendments adopted by the City of Brookings.

Dated this 22 day of Jan., 2001.

Approved as to form

M. Gerard Herbage
Curry County Counsel

Brenda Starbird
Recording Secretary

CURRY COUNTY BOARD OF COMMISSIONERS

Marlyn Schafer, Chair

Lucie La Bonte, Vice Chair

VOTED NAY
Cheryl Thorp, Commissioner

2001 31 0002 0000 0000

ATTACHMENT B

AMENDMENTS TO COUNTY PLAN POLICIES

Document: Curry County Comprehensive Plan

Section: 14.8 Plan Policies Regarding Urbanization

Policy Added to the Plan (To be Adopted)

15. Curry County in conjunction with the City of Brookings and the Harbor Water District will develop alternatives to water withdrawals from the Chetco River during the later summer months to address the needs of the fish resources in the development of the Public Facilities and Services Plan for the City of Brookings Urban Growth Boundary. The development of the alternatives to water withdrawals will include the following items.

    a) Findings that recognize the fish resource of the Chetco River is significant; the planned population growth and development within the UGB and its planned water withdrawals are uses which conflict with the resource; and the county, city, and special district will consider alternatives and develop a program which will limit the conflicting uses to the extent that they will not negatively impact the fish resource.

    b) The consideration of alternatives and development of a program to limit the conflicting uses will include an analysis and findings on the economic, social, environmental and energy consequences of the decision to allow, limit or prohibit the conflicting uses as required under Statewide Planning Goal 5.

    c) The program to limit the conflicting uses will be specifically state how the reduction in water withdrawal from the Chetco River will be attained and have implementing measures with clear and objective standards. The implementing measures will be adopted as ordinances or regulations by the agencies that control water usage within the UGB.

Chapter 12 - TRANSPORTATION

12.1 INTRODUCTION

The development of safe, convenient and economical transportation is an essential objective of the comprehensive plan. This chapter of the comprehensive plan describes the type and condition of transportation facilities in the county and their future potential and problems during the planning period.

Statewide Planning Goal 12 requires that the transportation plan for a county "shall 1) consider all modes of transportation; 2) be based upon an inventory of local, regional, and state transportation needs; 3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes; 4) avoid principal reliance upon any one mode of transportation; 5) minimize adverse social, economic and environmental impacts and costs; 6) conserve energy; 7) meet the needs of the transportation disadvantaged by improving service; 8) facilitate the flow of goods and services to strengthen the local and regional economy; and 9) conform with local and regional land use plan.".

Goal 12 is implemented by Oregon Administrative Rules (OAR) 660-012-0000 to 660-012-0070, which is referred to as the Transportation Planning Rule. OAR 660-012-0015 (3) requires cities and counties to adopt a local Transportation System Plan (TSP) for lands within their jurisdictions. Local TSPs are required to establish a system of transportation facilities and services adequate to meet identified local transportation needs and shall be consistent with regional TSPs and adopted elements of the state TSP. The county is required to adopt the TSP as part of its comprehensive plan.

OAR 660-012-0020 requires that the Transportation System Plan for Curry County contain the following elements:

1) a determination of transportation needs of the county;
2) a road plan for the county including a system of arterials and collectors and standards for the layout of local streets and non-collector street connections;
3) a public transportation plan that describes public transportation services for the transportation disadvantaged and any inadequacies, describes intercity bus service and the location of terminals; and any public transit service within city Urban Growth Boundaries (UGB);
4) a bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the county;
5) an air and water transportation plan which identifies where public use airports and port facilities are located or planned within the county;
6) include policies and land use regulations for implementing the TSP; and
7) for areas within the Urban Growth Boundaries a transportation financing program shall be developed.

The road plan, public transportation plan and bicycle/pedestrian plan shall include the

following elements:

1) an inventory and general assessment of existing transportation facilities and services by type, capacity and condition;
2) a system of planned transportation facilities, services and improvements;
3) a description of the location of planned facilities, services and major improvements including a map showing the general location of proposed transportation improvements; and
4) identification of the provider of each transportation service.

Curry County has developed and adopted a Transportation Plan (TSP) for the county in accordance with the requirements of Goal 12 and the Transportation Planning Rule. A summary of the elements of the TSP is included in this chapter.

12.2 TRANSPORTATION SYSTEM PLAN (TSP)

Curry County together with the Oregon Department of Transportation (ODOT) Region 3 and the cities of Port Orford, Gold Beach and Brookings began a coordinated planning effort to develop Transportation System Plans for the county and each of the cities in 1998. The ODOT, the county, and the cities retained the consulting firm David Evans and Associates, Inc. to prepare draft TSPs for each jurisdiction in order to comply with the requirements of Goal 12.

Community participation was an integral part of the development of the county TSP in order to involve the county staff, ODOT, and the general public. A project management team with members from the county staff (planning and road department), ODOT staff and staff from each of the cities in the county was formed to work with the consultant in preparing the plan. A Technical Advisory Committee (TAC) was also formed that had members from the public who represented various community groups affected by transportation (trucking, schools, utilities, emergency services, etc.) to provide guidance in preparing the plan. The consultant met regularly with the management team and TAC while developing the plan to insure that the project was being completed as planned. The consultant also met with individually with various groups and agencies (ports, public transit groups, etc.) to obtain information and discuss the project. The final phase of the community participation process involved public hearings during the county's adoption of the TSP and the revision of this chapter of the comprehensive plan.

The first step in developing the Transportation System Plan (TSP) was to create an inventory of existing transportation facilities in the county. Since Curry County's transportation system is largely vehicular based, most of the inventory effort was related to the existing arterial and collector street system. The Transportation System Plan must also address a 20-year forecast of transportation needs. Forecasting future needs for streets and roads requires estimating future traffic volumes for Curry County. These projections of future traffic volumes were done using the Oregon Department of Transportation (ODOT) *Level 1 - Trending Analysis* methodology. Once the future transportation forecasts were developed, it was possible to evaluate probable transportation system improvements that would be needed to accommodate future needs. The evaluation of transportation improvements was based on a qualitative review of safety, environmental, socioeconomic and land use impacts, as

well as estimated cost. The TSP then considers the options for funding each of the probable future transportation system improvements that will be needed over the 20 year planning period. The final step in the transportation system planning process was to develop comprehensive plan policies and land use ordinance requirements that implement the TSP.

The *Curry County Transportation System Plan - August 2002* is a separate document that includes all the inventory data, forecast methodology and analyses that were used to project future transportation system needs and probable improvements for the next 20 years. This plan has been adopted as a part of the Curry County Comprehensive Plan in order to address the requirements of Statewide Planning Goal 12 and is briefly summarized in this chapter. The comprehensive plan policies that were developed with the TSP have also been adopted as part of this chapter of the plan and are found in Section 12.8. Amendments to various sections of the Curry County Zoning Ordinance and Land Division Ordinance were also adopted to implement the TSP and the policies in this chapter of the comprehensive plan.

12.2.1 Classification of Roads & Streets

Curry County is served by two state highways; US 101 and Cape Blanco Highway and by two state facilities; Carpenterville Road and Meyers Creek Road. The most important transportation link in the county is Highway U.S. 101 which transects the county from north to south along the coast. The 1999 *Oregon Highway Plan* (OHP) classifies the state highway into five different categories. These categories are as follows: interstate highways, state highways, regional highways, district highways and local interest roads. US 101 in Curry County is classified as a state highway which is a highway that typically provides inter-urban and inter-regional mobility and connections to larger urban areas, ports, and major recreation areas that are not directly served by interstate highways.

The Oregon Coast Highway Corridor Plan identifies recommended access management categories along the US 101 corridor. Of the six categories, only two apply to US 101 in the unincorporated areas of Curry County.

> Category 3: These highway segments provide for efficient and safe medium to high speed and medium to high volume traffic movements on interregional, intercity and longer distance intracity routes. The segments are appropriate for areas that have some dependence on the highway to serve land access and where financial and social costs of attaining full access control would substantially exceed benefits. This category includes some of the statewide facilities.

> Category 4: These highway segments provide for efficient and safe medium to high speed and medium to high volume traffic movements on higher function interregional and intercity highway segments. They also may carry significant volumes of longer distance intracity trips. They are appropriate for routes passing through areas that have moderate dependence on the highway to serve land access and where the financial and social costs of attaining full access control would substantially exceed benefits. This category includes a small part of the statewide facilities and most regional facilities.

In Curry County the following segments of US 101 are classified as Rural Category 3:

Coos/Curry county line to Langlois (MP 285.78 to MP 287.55)
Langlois to Port Orford (MP 287.97 to MP 299.93)
Port Orford to Gold Beach (MP 301.43 to MP 327.88)
Gold Beach to Pistol River (MP 329.97 to MP 339.10)
Pistol River to Brookings (MP 339.10 to MP 355.38)
Brookings to California State Line (MP 360.85 to MP 363.10)

In Curry County the following segments of US 101 are classified as Rural Category 4:

Langlois (MP 287.55 to MP 287.97)
Port Orford (MP 299.93 to MP 301.43)
Gold Beach (MP 327.88 to MP 329.97)
Brookings (MP 355.38 to MP 360.85)

Other streets and roads in the county can be classified into five broad functional classes:

Principal Arterial:	A roadway with substantial interstate and statewide travel. Principal arterials serve both through traffic and trips of moderate length. Access is partially controlled with infrequent access to abutting properties..
Minor Arterial:	A roadway that links cities or land uses that generate large numbers of trips. Travel speeds will be relatively high with minimum interference to through movements.
Major Collector:	A roadway providing service to land uses that generate trips such as consolidated schools, shipping points, parks mining and agricultural areas. This type of road links minor collectors with streets of higher classification.
Minor Collector:	A roadway providing service to small communities. This type of road links locally important land uses that generate trips with rural destinations.
Local Road:	A public road that is not a city street, state highway or federal road. A road connecting the local uses with the collector system. Property access is the main priority; through traffic is not encouraged.

The U.S. Forest Service (USFS) has jurisdiction over a significant number of roads in Curry County. Most of these roads are located exclusively within the boundaries of the Siskiyou National Forest and their primary function is to provide access to the forest for logging and recreation activities. The USFS is not a public road agency; therefore, its responsibilities and liabilities for road maintenance are not

the same as the state and county. Due to recent reduction in the amount of logging activity in the Siskiyou National Forest and reductions in the federal budget there have been closures of numerous roads within the USFS road system. The priority roads are those that still have considerable recreational and commercial use. The USFS classifies its roads using a system of maintenance levels. There are five maintenance levels in the classification as follows:

Maintenance Level 1 This level is assigned to intermittent service roads during the time periods that they are closed to vehicular traffic. Basic custodial maintenance is performed to reduce damage to adjacent resources and to perpetuate the road for future use.

Maintenance Level 2 Assigned to roads open for use by high clearance vehicles. Passenger cars are not considered in the maintenance of these roads. Traffic is normally minor and consists of administrative, permitted, dispersed recreation or other specified uses.

Maintenance Level 3 Assigned to roads open and maintained for travel by prudent drivers in a standard passenger car. User comfort and convenience are not considered priorities in maintenance. Roads in this class are typically low speed, single lane with turnouts and spot surfacing.

Maintenance Level 4 Assigned to roads that provide a moderate degree of user comfort and convenience at moderate travel speeds. Most roads are double lane and aggregate surfaced; however, some roads in this class may be single lane.

Maintenance Level 5 Assigned to roads that provide a high degree of user comfort and convenience. These roads are normally double lane, paved facilities. Some may be aggregate surfaced.

The distinction between these maintenance levels is not always sharply defined and some parameters may overlap two or more different levels for the road in question. Generally the desired level of user comfort and convenience is used as the overriding criteria to determine the maintenance level of each road.

12.2.2 Inventory of County Roads

Table 12.2A is the inventory of major public streets and roads in Curry County included in the Curry County Transportation System Plan. This inventory identifies the streets and roads by jurisdiction, functional class and provides other information regarding the physical attributes of the facility and its associated uses.

INSERT Table 12.2A HERE

US 101 is the only principal arterial in the county that links all of the subareas of the county with the exception of the community of Agness. US 101 also connects the county to other regions and accommodates all traffic passing through the county. To the south US 101 connects Curry County to the state of California and to the north it connects the county to the cities of Bandon and Coos Bay in Coos County. Within Curry County US 101 is generally a two lane roadway with a 55 mph speed limit in the unincorporated areas of the county. The facility has left turn lanes at major intersections and additional passing lanes along those sections with significant grades.

Jerry's Flat Road/Agness Road is the only minor arterial within the county. This road connects the unincorporated community of Agness with the City of Gold Beach and links to a USFS seasonal use road extending easterly from Curry County into Josephine County. Presently this road is under county jurisdiction from Gold Beach to Lobster Creek and is a USFS road from Lobster Creek to Agness. It is a two lane paved roadway with various speed limits depending upon traffic levels and adjacent uses along the various segments of the road.

There are twenty (20) roads in Curry County that are classified as major collectors. These roads typically branch east and west from US 101 along river valleys to carry traffic from residential and forestry/agricultural areas that lie away from the highway. In some instances they link minor collector roads with US 101. Most major collectors are under county jurisdiction; however, a few are state facilities. Examples of major collectors in the county are Elk River Road, Squaw Valley Road and Carpenterville Road (state facility).

There are thirteen (13) roads and streets in Curry County that are classified as minor collectors. These roads typically locally important land uses (residential clusters, commercial sites, recreational facilities, etc.) to major collectors or to US 101. Most minor collectors are under county jurisdiction; however, a few link to city streets. Examples of minor collectors in the county are Floras Lake Road, Nesika Road, North and Oceanview Drive.

There are many public streets and roads in Curry County that are classified as local roads. These are roads that are not city streets, state highways or federal roads that connect local uses to the collector road system. All county roads that are not classified as arterials, major or minor collectors are considered to be local roads.

12.2.3 Current Traffic Conditions

The Transportation System Plan (TSP) includes an evaluation of the current conditions of the transportation system, including the current traffic on the road and street system. During the development of the TSP in 1997, a study was made of the existing traffic volumes from Oregon Department of Transportation (ODOT) and Curry County Road Department traffic count data. In addition, the morning and evening peak hour turning movement traffic volumes were determined at major intersections, traffic signal locations and intersections adjacent to land uses that generate a significant amount of traffic. This data was then adjusted for seasonal variation using the seasonal factors from the ODOT permanent traffic count station located on US 101 approximately one mile north of the California-Oregon state line. The results of these studies are given in the figures and tables

included in the TSP.

The current seasonally adjusted traffic volume data was then analyzed to determine the Level of Service (LOS) and Vehicle/Capacity Ratio (V/C) for the intersections and roadway segments.

TABLE 12.2B
LEVEL OF SERVICE (LOS) & V/C RATIO CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Ave. Delay (Sec./Vehicle)	Expected Delay
A	< 10.0	Little or no delay
B	>10.0 <15.0	Short delays
C	>15.0 <25.0	Average delays
D	>25.0 <35.0	Long delays
E	>35.0 <50.0	Very long delays
F	>50.0	Failure-extreme congestion

The LOS at the roadway mid-blocks was calculated based on correlating the daily V/C to LOS. Table 12.2.C summarizes the volume to capacity (V/C) ratio ranges that were developed for determining level roadway mid-block LOS on urban and rural roadways.

TABLE 12.2C
LEVEL OF SERVICE (LOS) & V/C RATIO CRITERIA FOR ROADWAY MID BLOCKS

Level of Service	Description	Volume/Capacity (V/C) Ratio
A	less than or equal to	0.60
B	less than or equal to	0.70
C	less than or equal to	0.80
D	less than or equal to	0.90
E	less than or equal to	1.00
F	greater than	1.00

For the two lane highway segments along US 101 the LOS is based on percent time delayed in a no passing zone with speed and capacity used as secondary measures. LOS is also dependent on the type of terrain; level ground, rolling hills or mountainous grades. The TSP analysis assumed a rolling hill terrain for the county highway segments. Table 12.2D summarizes the LOS criteria for a two lane highway during the peak afternoon hour.

TABLE 12.2D
LEVEL OF SERVICE (LOS) & V/C RATIO CRITERIA FOR
TWO LANE HIGHWAY WITH ROLLING TERRAIN

Level of Service	Percent Time Delay	Average Speed (mph)	V/C Ratio Percent No Passing Zones 0	20	40	60	80	100
A	< 30	>57	0.15	0.10	0.07	0.05	0.04	0.03
B	< 45	>54	0.26	0.23	0.19	0.17	0.15	0.13
C	< 60	>51	0.42	0.39	0.35	0.32	0.30	0.28
D	< 75	>49	0.62	0.57	0.52	0.48	0.46	0.43
E	< 75	>40	0.97	0.94	0.92	0.91	0.90	0.90
F	100	<40	-	-	-	-	-	-

The 1999 Oregon Highway Plan has defined minimum highway mobility standards by maximum volume to capacity (V/C) ratio thresholds by facility types. Thus a V/C ratio is defined as the peak hour traffic volume (vehicles per hour) on a highway section divided by the maximum volume that the highway section can handle. For the unincorporated areas of Curry County, US 101 has two V/C ratio standards. The first standard is for unincorporated communities outside Urban Growth Boundaries (UGB) which is a maximum V/C ratio for peak hour operating conditions of 0.70. The second is for rural lands which is a maximum V/C ratio for peak hour operating conditions of 0.75.

Based on current AM peak hour, PM peak hour and daily traffic volumes, the LOS was calculated for certain intersections and roadway mid-blocks within the county. The results of this analysis for signalized and unsignalized intersections is summarized in Table 12.2E.

TABLE 12.2E(a)
EXISTING UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS) & V/C RATIO

	A.M. Peak			PM Peak		
	LOS	Average Delay	V/C Ratio	LOS	Average Delay	V/C Ratio
	A	7.5	0.00	A	7.7	0.00
US 101/Floras Lake Loop Road	A	7.7	0.00	A	7.6	0.01
Northbound Left	A	9.1	0.00	B	11.4	0.03
Southbound Left	A	9.5	0.02	B	10.6	0.03
Eastbound Approach						
Westbound Approach						
US 101/Euchre Creek Road	A	0.0	0.00	A	7.5	0.00
Southbound Left	B	11.1	0.01	B	10.2	0.01
Westbound Left	A	9.6	0.02	A	9.0	0.01
Westbound Right						
US 101/Nesika Beach Road	A	7.6	0.00	A	7.6	0.03
Northbound Left	A	7.6	0.01	A	7.6	0.00
Southbound Left	A	9.2	0.04	B	10.0	0.05
Eastbound Approach	B	10.0	0.02	B	10.6	0.03
Westbound Approach						
US 101/Carpenterville Rd/Dawson Rd	A	7.7	0.01	A	7.7	0.05
Northbound Left	A	7.7	0.02	A	8.2	0.02
	B	10.0	0.06	B	11.1	0.09
Southbound Left	C	15.8	0.30	E	39.0	0.70
Eastbound Approach						
Westbound Approach						
US 101-Chetco Ave./Constitution Way (No..Bank Chetco River Rd.)	A	9.6	0.08	B	11.2	0.11
Southbound Left	B	11.1	0.04	B	12.7	0.06
Westbound Right	F	0.81	0.81	F	>100.0	1.07
Westbound Left						

TABLE 12.2E(b)
EXISTING SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS) & V/C RATIO

	A.M. Peak			PM Peak		
	LOS	Average Delay	V/C Ratio	LOS	Average Delay	V/C Ratio
US 101/Shopping Center Avenue						
Northbound Left	C	22.7	0.03	D	39.3	0.12
Northbound Right/Through	A	7.5	0.23	B	17.1	0.37
Southbound Left	C	22.7	0.03	D	38.9	0.06
Southbound Through	A	7.3	0.18	B	16.9	0.35
Southbound Right	A	6.6	0.01	B	15.8	0.22
Eastbound Left/Through	C	22.9	0.08	C	29.9	0.59
Eastbound Right	C	22.7	0.03	C	23.3	0.08
Westbound Left/Through	C	22.8	0.05	C	22.9	0.02
Westbound Right	C	22.7	0.03	C	22.9	0.02
Overall	A	8.4	0.17	B	19.5	0.42
US 101/Hoffeldt Lane						
Northbound Left	C	22.9	0.07	D	37.3	0.36
Northbound Right/Through	A	7.4	0.21	B	10.8	0.31
Southbound Left	C	22.7	0.03	D	35.7	0.15
Southbound Right/Through	A	7.3	0.18	B	10.7	0.30
Eastbound Approach	C	25.5	0.43	D	35.3	0.54
Westbound Approach	C	24.5	0.31	C	30.6	0.13
Overall	B	10.4	0.22	B	15.5	0.37
US 101/Benham Lane						
No traffic counts were made at this intersection because it was in the process of being signalized at the time of the study						

The results of this analysis for roadway mid-blocks of major county roads is summarized in Table 12.2F.

TABLE 12.2F
EXISTING COUNTY ROADWAY LEVEL OF SERVICE (LOS) & V/C RATIO SUMMARY

Roadway	Section	AADT	Capacity	V/C Ratio	LOS
Langlois Mountain Rd	East of US 101	200	10,000	0.02	A
Floras Lake Loop Rd (north end)	West of US 101	400	10,000	0.04	A
Floras Lake Loop Rd (south end)	West of US 101	100	10,000	0.01	A
Floras Lake Road	West of Floras Lake Loop Rd	400	10,000	0.04	A
Airport Rd	West of US 101	200	10,000	0.02	A
Sixes River Rd	East of US 101	100	10,000	0.01	A
Elk River Rd	East of US 101	600	10,000	0.06	A
Old Mill Rd	North of Cemetery Loop Rd	200	10,000	0.02	A
Edson Creek Rd	North of N. Bank Rogue Rd	600	10,000	0.06	A
Carpenterville Rd	East of US 101	3,600	10,000	0.36	A
Constitution Way	North of US 101-Chetco Ave	4,400	10,000	0.44	A
N. Bank Chetco River Rd	North of US 101	3,300	10,000	0.33	A
S. Bank Chetco River Rd	North of US 101	4,400	14,500	0.30	A
Lower Harbor Rd	West of US 101	3,400	10,000	0.34	A
Benham Lane	West of US 101	3,600	6,000	0.60	A
Oceanview Dr.	West of US 101	1,000	6,000	0.17	A
Winchuck River Rd.	East of US 101	2,400	10,000	0.24	A

The results of this analysis for two lane segments of US 101 is summarized in Table 12.2G.

TABLE 12.2G
EXISTING TWO-LANE HIGHWAY LEVEL OF SERVICE (LOS) & V/C RATIO SUMMARY

Roadway	Section	AADT	LOS	V/C Ratio
US 101	Coos-Curry County Line	4,300	C	0.30
	South of Kane St.	4,500	C	0.32
	North of Sixes River Rd	4,100	C	0.29
	Sixes River Bridge	4,200	C	0.29
	South of Cape Blanco Rd	4,400	C	0.31
	South of Elk River Rd	4,400	C	0.31
	South of Humbug Mtn. State Park	3,100	C	0.22
	North of Euchre Creek Rd	3,100	C	0.22
	South of Euchre Creek Rd	3,200	C	0.22
	North of Nesika Beach Connection	3,400	C	0.24
	South of Nesika Beach Connection	3,500	C	0.25
	South of Nesika Beach Rd	4,200	C	0.29
	North of Wedderburn Junction	4,400	C	0.31
	North of Cape Sebastian State Park	4,000	C	0.28
	North of Meyers Creek Rd	4,000	C	0.28
	Pistol River Bridge	3,800	C	0.27
	North of Carpenterville Rd	5,200	A	0.31
	North of Parkview Dr	7,700	A	0.48
	Chetco River Bridge	18,000	A	0.49
	South of S. Bank Chetco River Rd	15,000	A	0.52
	North of Hoffeldt Lane	13,000	A	0.45
	South of Hoffeldt Lane	12,000	A	0.46
	North of Benham Lane	9,900	A	0.38
	North of Oceanview Dr	7,700	A	0.48
	Winchuck River Bridge	7,300	A	0.46
	North of OR-CA Border	7,000	A	0.44

As shown in the above tables all of the intersections, roadways and highway segments currently operate at LOS C or better. Also the Oregon Highway Plan V/C standards of 0.70 and 0.75 are met for all intersections, roadways and highway segments along US 101.

12.2.4 Projected Traffic Conditions – Year 2017

Traffic conditions were projected for a twenty (20) year period to the year 2017 based on the 1 current traffic analysis described above. These projections were developed using a simplified travel dem model that relies on a combination of land use driven trip generation and distribution, and on a trend anal which uses historical experience and anticipated land use development as a basis. Projections of future tra conditions used historical population data for the county and population projections from the coun comprehensive plan. This data along with demographic information in the comprehensive plan was use forecast future housing and commercial/industrial land needs.

Traffic forecasts for the county for the period 1997-2017 were developed by correlating the 197 1997 population growth to the 1977 to 1997 traffic growth. This analysis indicated that traffic would gro an average of 1.0 % per year at all intersections in the unincorporated areas of the county. The 2017 tra volumes were forecasted by applying an annual compounded traffic growth factor of 1.00 perc

resulting 2017 AM peak hour, PM peak hour, and daily traffic volumes are given in the figures and ta included in the TSP.

Levels of service (LOS) analyses were also conducted on the 2017 traffic volumes to determine h the intersections, roadways and highway segments would function at the end of the planning period. Ta 12.2H shows the LOS of the intersections in 2017.

TABLE 12.2H
2017 INTERSECTION LEVEL OF SERVICE (LOS) & V/C RATIO

	A.M. Peak			PM Peak		
	LOS	Average Delay	V/C Ratio	LOS	Average Delay	V/C Ratio
Unsignalized Intersections:						
US 101/Floras Lake Loop Road	A	7.6	0.00	A	7.8	0.00
Northbound Left	A	7.7	0.00	A	7.7	0.01
Southbound Left	A	9.2	0.00	B	12.4	0.04
Eastbound Approach	A	9.7	0.03	B	11.0	0.03
Westbound Approach						
US 101/Euchre Creek Road						
Southbound Left	A	0.0	0.00	A	7.5	0.00
Westbound Left	B	11.8	0.01	B	10.6	0.02
Westbound Right	A	9.9	0.02	A	9.41	0.01
US 101/Nesika Beach Road						
Northbound Left	A	7.6	0.01	A	7.6	0.03
Southbound Left	A	7.6	0.01	A	7.6	0.01
Eastbound Approach	A	9.4	0.04	B	10.5	0.06
Westbound Approach	B	10.4	0.02	B	11.2	0.04
Signalized Intersections:						
US 101/Shopping Center Ave						
Northbound Left						
Northbound Right/Through	C	22.7	0.03	D	39.3	0.13
Southbound Left	A	8.8	0.45	C	21.6	0.68
Southbound Through	C	22.7	0.03	D	38.9	0.06
Southbound Right	A	8.0	0.32	C	22.6	0.72
Eastbound Left/Through	A	6.6	0.02	B	16.1	0.25
Eastbound Right	C	23.6	0.19	C	30.4	0.61
Westbound Left/Through	C	22.7	0.03	C	23.4	0.08
Westbound Right	C	22.8	0.06	C	22.9	0.02
Overall	C	22.7	0.03	C	22.9	0.02
	A	9.2	0.34	C	22.7	0.61
US 101/Hoffeldt Lane						
Northbound Left	C	22.9	0.07	D	37.3	0.36
Northbound Right/Through	A	8.8	0.45	B	13.4	0.57
Southbound Left	C	22.7	0.03	D	35.7	0.15
Southbound Right/Through	A	8.0	0.32	B	14.3	0.63
Eastbound Approach	C	25.5	0.43	D	35.3	0.54
Westbound Approach	C	24.5	0.31	C	30.6	0.13
Overall	B	10.1	0.39	B	16.2	0.57

Table 12.2I shows the LOS and V/C ratios of the county roadway segments in 2017.

TABLE 12.2I
2017 COUNTY ROADWAY LEVEL OF SERVICE (LOS) & V/C RATIO SUMMARY

Roadway	Section	AADT	Capacity	V/C Ratio	LOS
Arterials:					
Langlois Mountain Rd	East of US 101	250	10,000	0.03	A
Floras Lake Loop Rd (north end)	West of US 101	500	10,000	0.05	A
Floras Lake Loop Rd (south end)	West of US 101	120	10,000	0.01	A
Floras Lake Road	West of Floras Lake Loop Rd	500	10,000	0.05	A
Airport Rd	West of US 101	250	10,000	0.02	A
Sixes River Rd	East of US 101	120	10,000	0.01	A
Elk River Rd	East of US 101	750	10,000	0.08	A
Old Mill Rd	North of Cemetery Loop Rd	250	10,000	0.02	A
Edson Creek Rd	North of N. Bank Rogue Rd	750	10,000	0.08	A
Carpenterville Rosd	East of US 101	4,500	10,000	0.45	A
N. Bank Chetco River Rd	North of US 101	4,600	10,000	0.46	A
S. Bank Chetco River Rd.	North of US 101	10,800	14,500	0.74	C
Lower Harbor Road	West of US 101	6,600	10,000	0.66	B
Benham Lane	West of US 101	4,200	6,000	0.70	B
Oceanview Drive	West of US 101	1,100	6,000	0.18	A
Winchuck River Road	East of US 101	2,800	10,000	0.28	A
Local Streets:					
Benham Lane	East of US 101	9,900	6,000	1.65	F
Hoffeldt Lane	East of US 101	1,800	6,000	0.30	A
	West of US 101	2,800	6,000	0.47	A
Parkview Drive	East of US 101	1,500	6,000	0.25	A
Pedrioli Drive	West of US 101	1,600	5,000	0.32	A
Pelican Bay Drive	East of US 101	200	500	0.40	A
Raymond Lane	East of US 101	200	500	0.40	A

Table 12.2J shows the LOS and V/C ratios of the highway segments in 2017.

TABLE 12.2J
2017 TWO-LANE HIGHWAY LEVEL OF SERVICE (LOS) & V/C RATIO SUMMARY

Roadway	Section	AADT	LOS	V/C Ratio
US 101	Coos-Curry County Line	5,300	D	0.39
	South of Kane St.	5,500	D	0.41
	North of Sixes River Rd	5,100	D	0.37
	Sixes River Bridge	5,200	D	0.38
	South of Cape Blanco Rd	5,400	D	0.40
	South of Elk River Rd	5,400	D	0.40
	South of Humburg Mtn. State Park	3,800	C	0.28
	North of Euchre Creek Rd	3,800	C	0.28
	South of Euchre Creek Rd	3,900	C	0.29
	North of Nesika Beach Connection	4,200	C	0.31
	South of Nesika Beach Connection	4,300	C	0.32
	South of Nesika Beach Rd	5,200	D	0.38
	North of Wedderburn Junction	5,400	D	0.40
	North of Cape Sebastian State Park	4,900	D	0.36
	North of Meyers Creek Rd	4,900	D	0.36
	Pistol River Bridge	4,700	D	0.34
	North of Carpenterville Rd	20,700	F	1.29
	North of Parkview Dr	23,800	F	1.49
	Chetco River Bridge	33,800	E	0.91
	South of S. Bank Chetco River Road	25,100	D	0.87
	North of Hoffeldt Lane	23,300	C	0.80
	South of Hoffeldt Lane	22,300	D	0.86
	North of Benham Lane	16,200	B	0.62
	North of Oceanview Dr.	12,900	D	0.81
	Winchuck River Bridge	12,200	C	0.76
	North of OR-CA Border	11,900	C	0.74

The results of the above analyses indicate that most intersections in the county would still operate at LOS A or B in 2017. County roadway segments will continue to operate at LOS A in 2017 with the exception of four roads in the City of Brookings UGB. US 101 segments will drop in LOS from A-C to C-F by 2017 with highway segments within the City of Brookings approaching failure.

12.3 MASS TRANSIT

Curry County, due to its small population, geographic isolation from major population centers, topography, and economy does not lend itself to the development of mass transit services. The county and its incorporated cities have no railroad service, taxi services, or commercial airline service in the past nor do any appear possible in the foreseeable future. Railroad lines or services have never been extended into Curry County as a commercial carrier. A company railroad existed in the Brookings area for the transportation of logs from the forest to a mill site, but the facility was removed after the bridge across the Chetco River burned.

12.3.1 Private Transportation Service

Private taxi services exist in the cities of Gold Beach and Brookings which also serve the unincorporated areas around the cities. These services are available on an on-call basis from their base

stations.

12.3.2 Intercity Bus Service

Greyhound provides bus transit service in Curry County on a scheduled basis for travel to and from the county. Passengers may board at scheduled stops at Langlois, Port Orford, Gold Beach and Brookings. Currently the schedule includes four buses per day, two northbound and two southbound. Service is to Portland, Oregon to the north and San Francisco, California to the south with intermediate destinations in route to these major cities.

Curry Public Transit System is operated by the Chetco Senior Center in Brookings and operates two public transit services. The system provides a "demand/response" (Dial-a-Ride) service in the cities of Port Orford, Gold Beach and Brookings during the daytime hours on weekdays. The system also provides a scheduled bus service between the cities of Brookings and Coos Bay/North Bend, in Coos County, with trips each weekday. This bus also stops at Gold Beach, Port Orford, and Langlois on each trip through the county.

12.3.3 Local Transportation for the Disadvantaged

Curry County is the only public transportation provider of local and inter-city services convenient for day trips. The Curry County Retired Senior Volunteer Program (RSVP) provides transportation services that include door-to-door transport furnished in response to advance telephone reservations. The service consists of volunteer drivers transporting individuals on needed trips with expenses for transport reimbursed to the volunteer. The program is funded from public sources and user donations. This service augments the county program for specialized needs.

Dial-a-Ride transportation is available from the Curry Public Transit System located in the Port Orford Senior Center, the Gold Beach Senior Center and the Chetco Senior Center in Brookings. This service is generally provided within three miles of the dispatch centers; however, service to rural areas within a radius of 14 miles from each dispatch center is available according to a published schedule on a weekly basis. Also trips between cities for obtaining medical services are available on a scheduled basis. These services are provided free to senior citizens (age 60+) and handicapped; however, standard fees are charged to the general public who need transportation with priority services given to handicapped and seniors. The majority of the transportation disadvantaged reside in the Brookings - Harbor area where approximately 60% of the seniors live.

12.4 AIR TRANSPORTATION

Curry County has provisions for air transportation through three public airports located in various parts of the county. There is no commercial air transportation services available to the county. The closest available commercial air transportation services are located in Crescent City, California and Coos Bay/North Bend, Oregon. Two air ambulance services are available to county residents. Mercy Flights is a Medford, Oregon based non-profit organization and Cal-Ore Life Flight is an ambulance service based in Brookings, Oregon.

12.4.1 Brookings Airport

This facility is owned by Curry County and is located northeasterly of the City of Brookings within its Urban Growth Boundary. The airport site is 90 acres in area and located at 458 feet above mean sea level and is classified as a public access, general aviation facility with no commercial service available. Runway edge lights and end lights are provided on a 2,900 foot long asphalt runway. The airport utilizes Visual Flight Rule (VFR) approach and departure procedures and has segmented circle and wind indicator, 10-inch rotation beacon, and a Unicom (frequency 1228).

12.4.2 Gold Beach Airport

The Gold Beach Airport is owned and operated by the Port of Gold Beach and located on land immediately south of the mouth of the Rogue River within the City of Gold Beach. The Gold Beach Airport is classified as a general aviation airport that can accommodate about 95% of the general aviation propeller aircraft weighing less than 12,500 pounds. The airport has 3,200 foot long asphalt runway with a wind indicator, runway lights and beacon as navigational aids. The airport utilizes Visual Flight Rule (VFR) approach and departure procedures. In 1996, an estimated 4,571 operations occurred at the Gold Beach Airport.

Specific planning issues regarding this airport are discussed in the City of Gold Beach Comprehensive Plan.

12.4.3 Cape Blanco Airport

For this reason the 5100 foot runway and taxi strips are capable of handling aircraft of greater size than any other field on the south coast. The runway is in fact, 55 feet longer, than North Bend Municipal Airport's longest runway. The Cape Blanco Airport is located approximately six miles north of Port Orford, adjacent to Floras Lake state Park in unincorporated area of the county. The Cape Blanco Airport was originally constructed by the military for coastal air defense. After the military discontinued use of this field, the State of Oregon acquired it and it is now designated as a Land Access field for recreational flyers. This airport has a 5,100 foot long asphalt runway and wide taxi strips which are capable of handling larger military aircraft. Due to the caliber of the field construction, however, it is capable of reclassification to a Basic Utility or Basic Transport Airport. The airport has a beacon and wind indicator as navigational aids. The airport is the least used of the three Curry County airports. The last available count of the number of annual operations was in 1984 when the annual estimated number of operations was 710. The airport is now used as a pick-up facility for air taxi operators and air ambulance services as well as serving recreation flyers passing through the area. However, the field has the capacity to service large propeller and executive jet traffic as well.

12.4.4 Private Airports

In addition to the three public airports in Curry County there are at least seven known private landing strips. These are all grass or gravel landing strips that serve remote areas of the county or

private resort facilities. The private landing strips at the community of Agness, Paradise Lodge and Half Moon Lodge on the Rogue River are used frequently during the summer tourist season. These landing strips do not have any support facilities or developed navigational improvements.

12.5 WATERBORNE TRANSPORTATION

Curry County has three public ports that are located within the cities of Port Orford and Gold Beach, and in the unincorporated Harbor area of the City of Brookings Urban Growth Boundary.

The Port of Port Orford is a non-estuarine, natural harbor with one jetty and serves primarily commercial fishing craft. This port is discussed more fully in the Port Orford Comprehensive Plan.

The Port of Gold Beach is an estuarine port located near the mouth of the Rogue River and serves not only commercial fishing craft, but sport and charter boats also. A more detailed discussion of this port is included in the Gold Beach Comprehensive Plan.

The Port of Brookings-Harbor is the largest port facility in the county and provides for multiple uses both related and not related to water transport. The principal uses of this port include: sport fishing, commercial fishing, a U.S. Coast Guard station, visitor-oriented commercial facilities, community facilities, public recreation facilities (including a RV park) and light industrial development (marine and non-marine). The port serves not only commercial fishing traffic, but also sport and charter vessels. Facilities include two boat basins, a dredged channel and turning basin, two jetties and boat ramp. The popularity of the port during the ocean sportfishing season is indicated by the fact that the Chetco River entrance has more crossings per year than any other place on the Oregon Coast with the exception of the Columbia River.

Although the principal focus of the Port of Brookings-Harbor facility is for water transport, the port has developed plans to enlarge the commercial development uses within the port to include a boardwalk along the marina and retail commercial center. The initial phase of this commercial development has been completed and is successful. If all phases of this plan are completed in the future there would by 45,500 square feet of additional commercial retail space available at the port facility.

12.6 OTHER FORMS OF TRANSPORTATION

There are no railroad lines or pipeline transportation facilities within Curry County.

Curry County has provisions for other forms of transport primarily for individual pedestrian and bicyclist use . These facilities are predominantly associated with the existing road and streets as bikeways, sidewalks and urban paths.

One percent of state gasoline tax revenues are set aside for the construction of bicycle routes. The Oregon Coast Bicycle Trail, follows Highway 101 and is improved as sections of the highway itself are widened. Although there are no exclusive bike lanes along US 101 in the rural portions of the county; sections of the highway have been widened to accommodate bicycles in various parts of the

county. Bicycle touring is popular during the summer and increasing bicycle related accidents are possible on narrow, curving sections of the highway although signs are posted indicating the presence of bicyclists.

In urban and rural developing areas of the county inadequate separation between pedestrians and motor driven vehicles is one of the greatest obstacles to increasing pedestrian traffic volumes. Most pedestrian safety problems are related to the incorporated areas because of the distance between cities precludes pedestrian travel on U.S. 101. The most common safety problem for pedestrians in the rural areas of the county involves the lack of sidewalks and paths, which forces pedestrians to compete with vehicles for use of the road. The primary hazard exists in the school age children who need to walk to and from their homes to reach school bus pick-up points. The county has improved some of its public streets to include sidewalks in areas that are included within Urban Growth Boundaries.

12.7 REGIONAL NEEDS

The public identified several transportation needs for the region as part of the process of developing the Transportation System Plan (TSP). These needs are as follows:

1. Improvement of the east-west connection between the South Coast and Interstate 5 in Josephine County;

2. Develop alternate routes to US 101 through the county that can be used when the highway is closed;

3. Improve the intersection at Lower Harbor Road and Shopping Center Road which is the entrance to the Port of Brookings-Harbor; and

4. Implement Transportation Demand Management Strategies.

An east-west arterial highway from US 101 to I-5 in the county is needed to reduce the isolation of the region relative to the rest of the state. ODOT studied options for an improved east-west corridor in 1974 and determined that one option, the Shasta Costa corridor, is the preferred alignment for a highway. However, the study also determined that the cost to improve the existing road to highway standards would far outweigh any economic benefits to the area. The existing US Forest Service Road consists of a paved road to the community of Agness, then a one lane road over the mountain to a paved county road in Josephine County for a total length of 70 miles. Improvement of the road to highway standards would involve the cooperation of Curry County, Josephine County, the USFS and the State of Oregon. None of these has the ability to fund a major improvement to this road at this time. The TSP notes that the improvement of the road to highway standards is not feasible during the next 20 years but that the road should be kept open for travel on a year round basis.

The need for alternate north-south routes paralleling US 101 through the county are needed to accommodate traffic when mud and rock slides have closed the highway. Several state, county and USFS roads have been identified as possible alternative routes in the TSP. The TSP recommends that

several of these roads be developed as alternative routes to US 101 for emergency situations.

The Lower Harbor Road and Shopping Center Road intersection is a "T" intersection at the entrance to the Port of Brookings-Harbor. Presently this intersection is a two-way STOP sign controlled situation. The City of Brookings believes that the intersection should be changed to signalized control; however, the intersection does not meet the warrants for a traffic control light. The TSP recommends that the two way STOP sign control be maintained at this intersection until traffic volumes and accident history warrant additional control facilities.

Transportation demand management (TDM) strategies change the demand on the transportation system by providing facilities for modes of transportation other than single occupant passenger vehicles. Typical strategies include implementing carpooling programs, altering work shift schedules and improving pedestrian facilities. Cities and counties are required evaluate TDM measures as part of their Transportation System Plans (TSP). Most TDM strategies are more effective in large, urban cities but some strategies can be useful in the rural and more urban areas of Curry County. The two types of TDM strategies that could be useful in the county are to provide facilities for alternative modes of transportation and to implement a county-wide carpooling program. The first strategy recommended in the TSP is to require all future street improvement projects to include some sort of pedestrian facility (sidewalk or walkway) and/or a bikeway. The second strategy would be for the county to organize a carpool program for residents who live in one area of the county and work in another area.

12.8 PLAN POLICIES FOR TRANSPORTATION

Curry County recognizes its geographic isolation within the state and its dependence upon the automotive form of transportation as limitations in the future development of the county. Therefore, as part of its comprehensive plan, Curry County adopts the following policies with regard to transportation:

1. The Transportation System Plan is an element of the Curry County Comprehensive Plan that identifies the general location of transportation improvements.

2. All development proposals, plan amendments, and zone changes shall conform with the adopted Transportation System Plan.

3. Curry County will continue to develop its road system as the principle mode of transportation both for access to the county and within the county.

4. Changes in specific alignment of proposed public road and highway projects shall be permitted without plan amendment if the new alignment falls within a transportation corridor identified in the Transportation System Plan.

5. Curry County will seek further improvement of mass transit systems to the county by encouraging more frequent scheduling of commercial carriers and by continued support of those systems presently developed for mass transit within the county.

6. Curry County will seek to provide facilities for safe and convenient pedestrian and bicycle circulation and access, both within new residential and commercial development, and on public roads.

7. Curry County will seek to improve air transport to the county by recognizing the importance of the three county airports and by protecting the public use of the airports, and will continue to support the development of these sites for future expansion of air service.

8 Curry County will continue to support the development of the ports in the county in order to expand sea modes of transportation to and from the county.

9 Curry County will continue to support programs for the transportation of the disadvantaged where such programs are needed and are economically feasible.

10. The comprehensive plan encourages development to occur near existing community centers where services are presently available so as to reduce the dependence on automotive transportation.

11. Curry County will continue to support the development of an east-west arterial highway from U.S. 101 to Interstate 5 in the county as the best means of reducing the relative isolation of the area from the rest of the state.

12. Curry County shall include a consideration of a proposal's impact on existing or planned transportation facilities in all land use decisions.

13. Curry County shall preserve right-of-way for planned transportation facilities by requiring dedication or setbacks by donation.

14. Operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review, except where specifically regulated.

15. The following shall be allowed without land use review: dedication of right-of-way, authorization of construction and the construction of facilities and improvements (for improvements designated in the Transportation System Plan), the classification of the roadway and approved road standards.

16. For State of Oregon projects that require an Environmental Impact Study (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for local land use review, if local review is required.

17. Curry County shall protect the function of existing and planned roadways as identified in the TSP.

18. Curry County shall protect the function of existing or planned roadways or roadway corridors through the application of appropriate land use regulations.

Chapter 11 - PUBLIC FACILITIES AND SERVICES

11.1 INTRODUCTION

An important aspect of the comprehensive plan for Curry County is the provision of public facilities and services in a timely and appropriate manner for urban and rural development. This chapter of the comprehensive plan describes those public services available in the county and the extent to which they can accommodate the future growth of the county.

Goal 11 has the primary intent "to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development." The Goal further states that "urban and rural development shall be guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable, and rural areas to be served."

For purposes of comprehensive planning the following definitions apply:

Rural Facilities and Services:

Are facilities and services which are suitable and appropriate solely for the needs of rural lands.

Urban Facilities and Services:

Are key facilities which are at least the following: police protection, fire protection, sanitary, storm drainage facilities, planning, zoning, subdivision control, health services, recreation facilities, energy and communication services, and community government services.

The provision of public facilities and service in the county under the comprehensive plan should be coordinated with other comprehensive plans for urban growth boundaries, urbanizable lands and to rural uses within the county. Also public facilities for rural areas should be provided at levels appropriate for rural use. Conversely public facilities proposed for urban and urbanizable lands should be appropriate for the development of those lands to urban densities. Finally the comprehensive plan should provide for a management program to assign respective implementation roles and responsibilities to those governmental bodies operating in the planning area.

11.2 TYPES OF PUBLIC FACILITIES

Curry County in its rural and urban areas has the following types of public facilities and services:

1. Public water systems are those that serve incorporated cities, rural communities, and rural areas.

2. Public sewage disposal systems are those that serve incorporated cities, and their

urban growth areas.

3. Fire protection districts are those that serve incorporated cities, rural communities and rural areas.

4. Law enforcement services are those that serve the incorporated cities and the county-wide area.

5. Public health services are those that serve the incorporated cities and the county-wide area.

6. Educational services are provided throughout the county by several school districts.

7. Electrical energy and communication services are provided throughout the populated areas of the county by rural electrification co-op and a private telephone corporation.

Other aspects of public facilities and services are discussed in other sections of the comprehensive plan such as transportation services (Chapter 12), recreation (Chapter 8), and solid waste (Chapter 6). This chapter will primarily focus on those public facilities which are essential to the present and future development of lands for residential and related uses (i.e. sewer, water and protective services).

11.3 PUBLIC WATER SYSTEMS

Public water in Curry County is provided through the city systems and the five rural water district. Table 11.3A shows the statistical information regarding these water systems. As can be seen from the above referenced table the largest water systems in the county are those of the three cities. One water district is located with in the urban growth area of the adjacent city (Harbor Water District) and is identified as a service provider for a part of the urban growth area. The remaining rural water systems serve the rural communities of Langlois, Ophir and Nesika Beach.

A brief description of each of the public water systems in the county is given to inventory these facilities.

TABLE 11. 3.A
City and Water District System Data

System	Source	1996 EDU	Production Capacity	Storage Capacity
City of Port Orford	Hubbard Creek & Garrison Lake	585	550 gpm	1,250,000 gal
City of Gold Beach	Rogue River	1,906	650 gpm	3,100,000 gal
City of Brookings	Well Next to Chetco River	3,646	1,400 gpm	2,000,000 gal
Langlois WD	Floras Creek	140	100 gpm	100,000 gal
Nesika Beach-Ophir WD	Well Next to Rogue River	544	850 gpm	432,000 gal
Harbor Water PUD	Chetco River	2,644	850 gpm	2,650,000 gal

Source: Dyer Partnership, 1997, Analysis of Public Drinking Water Needs & Supplies, Curry County, Oregon

11.3.1 City of Port Orford Water System

The City of Port Orford uses a small reservoir on the North Fork of Hubbard Creek (about 3/4 mile east of the city) as its principal source of water. The water is pumped from the source, treated, and stored for distribution throughout the city. Garrison Lake has also been used as a source of drinking water; however, problems with salt water intrusion into the lake from the ocean have limited its use as a water source. The city comprehensive plan contains additional information regarding the city water system.

11.3.2 City of Gold Beach Water System

The City of Gold Beach water system uses the Rogue River as its source with an intake well located about 3 miles east of the city above the head of tide. Water is pumped from this source, treated and stored in tank reservoirs in the city for distribution both within the city and to parts of the urban growth area. Water is provided to the neighboring Wedderburn area on a contractual basis. The Wedderburn area is included within the City of Gold Beach UGB and will probably become part of the municipal system in the future.

The Gold Beach system requires upgrading of storage capacity, larger transmission lines and pumps in order to accommodate summer and industrial demand. Other problems with the system are the lack of water storage in the Wedderburn area. Wedderburn presently receives its water from a pipe line over the Rogue

River Bridge and if the line should break the entire community is without water. Fire protection under such circumstances would be only by hauling water with tanker trucks. The City of Gold Beach comprehensive plan has a more complete discussion of this system.

11.3.3 City of Brookings Water System

The City of Brookings water system uses a Rainey well system located adjacent to the Chetco river about 3.5 miles east of the city limits. The Ferry Creek Reservoir, located immediately east of the city limits was the former source of water, but has been discontinued. However, it could be a future alternate source (See Water Resources Inventory Map). Water is pumped from the source, treated, stored and distributed within the city and adjacent areas.

Brookings water system has adequate capacity through the planning period. The basic problems faced by the city are replacement of old lines and protecting the intake from upriver pollution. The Ferry Creek water supply has a high turbidity problem but, during peak demand or malfunction in the primary system, can be used to supplement or replace the primary system. A more complete discussion of the City of Brookings water system is provided in the City of Brookings Comprehensive Plan and Public Facilities Plan for the City's urban growth area.

11.3.4 Langlois Water System

The Langlois Water District uses Floras Creek as its source of water near the southern boundary of the community. Water is pumped from the creek to a treatment plant and storage tank and then distributed through the community area. The system presently serves the community area of Langlois with a main line extended north about 3/4 mile from the commercial center to serve a few residences along U.S. 101.

The district has adequate storage capacity through the planning period since the installation of a treatment plant and storage tank. The intake system at Floras Creek has also been improved to reduce turbidity and increase capacity intake capacity.

At present the water system is not at capacity and can accommodate additional service hookups. The community boundary has been deter mined to be the water district boundary because the district is committed to providing service within that area without extending lines into adjacent rural lands.

11.3.5 Nesika Beach-Ophir Water Systems

These rural water systems have the same source on the north bank of the Rogue River which is pumped approximately 3½ miles through a main line to the community of Nesika Beach. The Nesika Beach Water District then provides storage and distribution to the community. The Ophir Water District is a northerly extension of the Nesika Beach system along Ophir Road for a distance of about three miles to the community of Ophir. The Ophir district provides additional storage and distribution to the community area. Studies of the two districts show that they have adequate intake storage and distribution facilities for the planning period.

The Nesika Beach - Ophir Water Districts are committed to serving the community areas within their respective boundaries and will not be extending service lines beyond the community boundary. The only water service provided by these districts outside the community boundary is individual service connections along the main line from the Rogue River.

11.3.6 Harbor Water PUD System

The Harbor Water Peoples Utility District serves the southerly portion of the City of Brookings Urban Growth Boundary and areas extending south of the UGB to the California state line. This district has the Chetco River as its source of water from an intake approximately two miles up river from U.S. 101 above the head of tide. The district provides storage and distribution to the community areas as well as adjacent rural areas.

The Harbor Water PUD has satisfactorily met the needs of a rapid increase in population. The district has improved its intake and increased storage capacity as well as extending new transmission lines. Most of the district's distribution lines are located within the densely developed Harbor area adjacent to the Port of Brookings-Harbor facility. Service areas of the district lying outside the UGB are limited to individual hookups along existing lines. A more complete discussion of the relationship of the Harbor Water District to the City of Brookings is found in the Public Facilities Plan for the City of Brookings urban growth area.

11.3.7 Other Public Water Systems

Curry County had an engineering study done of the "public drinking water needs and supplies" in 1997. The Dyer Partnership Engineers & Planners, Inc. reviewed the public drinking water systems in the county to provide an assessment of the current and future water demands required by each of these systems. This study is entitled "Analysis of Public Drinking Water Needs and Supplies, Curry County, Oregon; July, 1997" has been adopted as a part of the comprehensive plan. There are a total of 58 public drinking water systems including the three city systems and three water district systems described above. The remaining 52 public drinking water systems in the county were inventoried as to use, type, source, current demand and capacity. This inventory is shown in Table 11.3.B below.

TABLE 11.3.B

Other Public Drinking Water Systems
Curry County, Oregon

System	Use	Source	1996 EDU	Production Capacity	Storage Capacity
Agness RV Park	RV Park	Well	75	NA	80 gal
Agness School	School	Well	6	NA	40 gal
Anchor MH Park	MH Park	Well	39	NA	500 gal
Anglers Trailer	MH Park	Well	47	11 gpm	1,200 gal
Arizona Beach	RV Park	Well	126	60 gpm	100 gal
At Rivers Edge	RV Park	Chetco R.	96	18 gpm	14,000 gal
Bandon/PO KOA	RV Park	Well	72	30 gpm	200 gal
Camp Fircroft	CG	Spring	60	NA	9,000 gal
Cape Ferrelo SDA Sch.	School	Stream	24	NA	1,100 gal
Cedar Bend GC	Community	Well	75	NA	80 gal
Clay Hill Lodge	Lodge	Stream	20	NA	550 gal
Coos-Curry Elect.	Office	Well	22	75 gpm	240 gal
Co. Boice-Cope Pk.	RV Park	Well	18	NA	350 gal
Co. Lobster Ck. Pk.	CG	Stream	60	20 gpm	5,000 gal
80 Acre Water Coop	Community	Stream	10	NA	12,000 gal
Elk River CG	CG	Well	26	10 gpm	1,000 gal
Floras Lake House	Lodge	Well	5	22 gpm	NA
Four Seasons Resort	RV/MH Park	Stream	61	NA	6,000 gal
Half Moon Lodge	Lodge	Well	15	NA	2,000 gal
Head Acres	MH Park	Well	28	18 gpm	1,300 gal
Holmes Sea Cove	Lodge	Spring	9	5 gpm	NA
Humbug Mt. Resort	Rest./Lodge	Well	25	NA	80 gal
Illahe Lodge	Lodge	Spring	25	NA	2,000 gal
Inglis MH Park	MH Park	Unk.	5	NA	NA
Huntley Park	RV Park	Well	Unk.	NA	NA
Kimball Bend Resort	RV Park	Stream	50	NA	6,000 gal
Lucas Lodge	Lodge	Well	15	NA	100 gal
Lucky Lodge	RV Park	Well	18	NA	3,000 gal
Marial Lodge	Lodge	Stream	18	NA	1,500 gal
ODFW Elk R. Hatch.	Office	Multiple	9	NA	3,000 gal
OPRD Cape Blanco	CG	Well	68	40 gpm	50,000 gal
OPRD Humbug Mt.	CG	Stream	87	22 gpm	25,415 gal
OPRD Loeb	CG	Well	358	10 gpm	10,000 gal
Old Sheep Ranch	Community	Well	14	44 gpm	36,200 gal
Pacific H.S.	School	Well	200	NA	20,000 gal
Paradise Bar Lodge	Lodge	Stream	170	40 gpm	2,000 gal
Pelican Bay Hts.	Community	HWPUD	7	NA	NA
Pistol River School	Commercial	Spring	12	NA	1,200 gal
Rainbow Rock Condo	Community	Stream	60	20 gpm	75,000 gal
Rainbow Rock Hts.	Community	Well	9	12 gpm	3,500 gal
Rainbow Rock Village	Community	Well	50	12 gpm	15,000 gal
Riverboat Village	MH Park	Unk.	Unk.	NA	NA
Rolling Acres	Community	Spring	5	NA	12,000 gal
Santa Anita Lodge	Lodge	Spring	18	NA	21,000 gal
Sea Crest Motel	Motel	Spring	18	35 gpm	7,000 gal
Silver Springs	MH Park	Well	8	10 gpm	120 gal
Singing Springs	Lodge	Spring	5	NA	1,800 gal
Sixes River Hotel	Lodge	Well	12	NA	530 gal
Steelblue Chameleon	Lodge	Well	10	NA	40 gal
Upper Chetco Sch.	School	Well	52	NA	2,400 gal
USFS Little Redwood	CG	Spring	15	2 gpm	600 gal
USFS Quosatana	CG	Well	21	NA	13,450 gal
USFS Winchuck	CG	Spring	7	4 gpm	1,000 gal
Whaleshead Beach	RV Park	Well	105	18 gpm	15,000 gal
Wild River Lodge	Lodge	Stream	10	NA	550 gal

Source: Dyer Partnership, 1997, "Analysis of Public Drinking Water Needs & Supplies, Curry County, Oregon"

11.4 SEWAGE TREATMENT

The treatment of sewage effluent by a central processing facility is a necessary - public facility in order to have full urbanization of the land. In the absence of a sewage treatment facility, development is dependent on some form of individual treatment such as a septic system which requires a relatively large lot size to accommodate the system. Thus the availability of public sewage treatment services is an important factor in separating rural lands from urbanizable areas.

Public sewage treatment in Curry County is limited to the three incorporated cities and their urban growth areas. Administratively these services are provided through the three city systems and three separate sanitary districts. Table 11.4A summarizes important facts regarding each of these systems which related to planning; however, for a detailed discussion of the systems the comprehensive plans for Port Orford, Gold Beach and Brookings should be consulted.

The cities of Port Orford, Gold Beach and Brookings do not extend municipal sewer lines beyond their corporate limits and have a policy that lands in the UGB must annex prior to receiving such service. Sewer service has been available in two areas of Curry County (the Wedderburn area and in the Harbor area) from special districts. Two districts in the Wedderburn area have developed a collector system and utilize sewage lagoons for treatment. The Harbor District pumps its sewage across the Chetco River to the City of Brookings for treatment in the regional sewage treatment plant. A full discussion of these facilities is found in the urbanization elements of the City of Gold Beach and City of Brookings Comprehensive Plan and the Public Facilities Plans for the respective urban growth boundaries.

TABLE 11.4A
SANITATION FACILITIES

	Type of Treatment Plant	Capacity	Service Area	Design Population
Brookings (Regional Plant)	Primary, secondary	1.7 mgd	City & UGB	
Gold Beach (Regional Plant)	Activated sludge	mgd	City	
Port Orford	Extended aeration with polishing ponds	mgd	City	
Harbor SD	Uses Brookings STP	NA	South Brookings UGB	
Wedderburn SD	Lagoons with aeration	0.09 mgd	North Gold Beach UGB	
Knoxtown SD	Uses Wedderburn SD	NA	North Gold Beach UGB	

Source:

11.5 RURAL SEWAGE DISPOSAL

Most of Curry County is dependent upon individual sewage disposal utilizing a system approved for such use by the Department of Environmental Quality (DEQ). The most commonly used system is a variation of the typical septic subsurface disposal system. Such systems work almost universally in the county although specific sites are found where they cannot be sited due to topographic, soil or groundwater constraints. Oregon also allows certain alternate disposal systems to be used in areas where the standard septic system cannot be sited. Curry County administers the on-site sewage disposal program for the state Department of Environmental Quality (DEQ) and is responsible for evaluating sites for sewage disposal and issuing permits for the construction of individual disposal systems.

11.6 OTHER UTILITIES

Electrical power is provided to most areas of the county by two utility systems; the City of Bandon and the Coos-Curry Electric Cooperative Inc. The City of Bandon only serves a small area of the county in the vicinity of Langlois where they have a single transmission line along U.S. Highway 101. The Coos-Curry Electric Cooperative was organized in 1938 and serves part of Coos County and virtually all of Curry County. Power is purchased from Bonneville Power Administration as a preference customer. The Cooperative has installed transmission and distribution lines through out the coastal area of the county to link the population centers and serve the rural areas. Table 11.6A summarizes the operating statistics of the Coos-Cur Cooperative for the county.

TABLE 11.6.A
ELECTRICAL UTILITY STATISTICS

	Coos-Curry Coop	City of Bandon
Miles of Line - Distribution	1,500	20
Miles of Line - Transmission	53	0
Average no. Billed Consumers	12,000	300
Consumers per mile	8.0	15.0

Source: Electrical Utility Providers

Curry County is served by Verizon, Inc. as the prime facility for general communication. They have exchanges located in Langlois, Port Orford, Gold Beach, and Brookings with service to all developed areas of the county. Verizon has recently installed a fiber optic cable along the US 101 right of way to link the cities within the county with outside communication links. Other communication services include the operation of TV translators and Cable TV networks in the incorporated cities and the operation of a local radio station in the Brookings area.

11.7 FIRE PROTECTION

Fire protection in Curry County is provided by either city fire departments or Rural Fire Protection Districts (RFPD). Table 11.7A shows statistical information regarding county fire departments.

TABLE 11.7A
FIRE PROTECTION, CURRY COUNTY, OREGON

City/RFD	Insurance Classification	Personnel Paid/Vol.	Service Area
Urban Fire Departments:			
City of Brookings	7	1/39	Brookings City Limits
City of Gold Beach	5	0/22	Gold Beach City Limits
City of Port Orford	7	0/30	Port Orford City Limits
Rural Fire Districts:			
Langlois	7	0/9	Langlois – North County Line to Denmark
Sixes	8	0/15	Denmark to Elk River
Port Orford Rural	7	PO FD	Elk River, P.O. UGB
Ophir	6	0/12	Arizona Beach to Nesika Beach
Squaw Valley-North Bank	9	0/6	Squaw Valley to North Bank Rogue River
Gold Beach Rural	5	GB FD	Wedderburn, South Bank Rogue River
Agness	9	0/12	Agness Rural Community
Pistol River	8	0/10	Cape Sebastian to Crook Pt.
Cape Ferrelo	8	0/21	Cape Ferrelo to Brookings UGB
Suburban	7	Brookings FD	Brookings UGB North of Chetco River
Upper Chetco	9	0/8	North Bank Chetco River to Gardner Ridge
Harbor	4	0/20	Brookings UGB South of Chetco River
Winchuck	9	0/8	Winchuck River Area

Insurance classifications represent a measure on a scale-of-ten of the level of protection in an area. Criteria include such factors as availability of fire hydrants and distance from fire stations. An entirely unprotected area is rated 10 and would have maximum insurance premiums on a given building, whereas, the same building in a more protected area would cost less to insure.

Large areas of the county are without rural fire protection districts, leaving structures unprotected. Brush and forest fire suppression in these areas is handled by the U.S. Forest Service for federal forest land

and Coos Forest Protective Association for state forest land and private commercial timberland.

11.8 POLICE PROTECTION

Police protection in Curry County is provided by the Curry County Sheriff's Department and the Oregon State Police. The Curry County Sheriff's Department deploys deputies to all coastal parts of the county on a regular shift basis. In the southern part of the county, patrol cars are dispatched by radio from Gold Beach from the substation located in Brookings. Patrols are dispatched from the Sheriff's Office in Gold Beach for the central part of the county including the Agness area. The cities of Port Orford, Gold Beach and Brookings provide their own police protection with municipal police departments.

The Oregon State Police have a permanent office in Gold Beach and dispatches patrol cars to the coastal area of the county. Also units from the Coos Bay office patrol in the northern part of the county due to overlapping coverage by the two offices. The State Police also provide officers to enforce state game laws in the county.

11.9 EDUCATION

Curry County is served by three school districts that provide education to all populated areas of the county for grades 1 - 12. Table 11.9A describes each district with regard to school facilities, numbers of students and teachers, and budgets. Students are transported to schools by an extensive system of school bus routes that traverse most county roads. Curry County also has an Educational Service District (ESD) that provides specialized services to all of the school districts of the county.

TABLE 11.9A
CURRY COUNTY SCHOOL DISTRICTS - 2001

District	# of Schools Primary/ Secondary	# of Students	# of Teachers	Student/Teacher Ratio
#2CJ - Port Orford/ Langlois	2/1	477	41	11.6
#3 - Gold Beach	2/1	766	54	14.3
# - 17C Brookings-Harbor	3/1	1,829	141	13.0

Source: Oregon Dept. of Education

Presently, all school systems in the county are under capacity and some districts are in fact suffering from declining enrollments to the point of having to combine grades and reduce sports programs. This redu

tion in student population probably reflects the economic situation in the county with declining employment and relocation of working-age people to areas with more employment opportunity.

11.10 RURAL AND URBAN LEVEL SERVICES

As noted earlier, Goal 11 points to the need for distinguishing between the types and levels of facilities and services that are urban in nature and those services which are exclusively rural. This distinction is important since needs for urban and rural areas are different and should be planned to allow the appropriate level of growth to occur efficiently.

Most of Curry County only requires rural services levels because of the low density of housing and the predominance of resource lands. Rural service levels are generally considered to be the provision of protective services (police and fire), electrical power, communication service and education.

Urban level services are generally determined to be those services found in rural areas and also the provision of public water and sewage disposal. The availability of public or community water to an area allows the development of the land to a higher density because it eliminates the necessity for a well, spring or other natural source of water. If public sewage disposal is also available to an area in combination with a public or community water source then the need for an area to accommodate the septic disposal system and appropriate setback distances is eliminated and development to urban density is possible. The Curry County Comprehensive Plan recognizes these public facility service levels by identifying the various areas where differing levels of such services exist and designating land uses appropriate to those levels.

The comprehensive plan recognizes the following public facility service areas in the county.

1. Rural Service areas - basic protective services, energy and communication services and education available, water and sewage disposal on individual basis.

2. Rural Community services areas - all services that exist in rural areas and also a public water system together with a commercial center (store, post office, church, etc.).

Urban service areas - all services that exist in the above service areas and also public sewage disposal. These areas are located within the urban growth areas of the incorporated cities.

Plan designations and zoning have been applied to lands within the county that are appropriate to the identified service levels. The county has developed several rural residential zones which are applied to lands that nave only rural services. These zones have minimum lot sizes which are appropriate for the provision of water and disposal of sewage on individual lots. The following land use zones are applied to rural lands:

1. Rural-Residential (5 acre & 10 acre dwelling density/minimum lot size) – for lands located outside Urban Growth Boundaries (UGB) and identified Rural Communities.

2. Rural-Residential (2.5 acre & 1.0 acre dwelling density/minimum lot size) – for lands located

outside UGB's but within identified Rural Communities with public water systems.

3. Residential (1 acre to 6,000 square feet dwelling density/minimum lot size) – for lands within UGB's with lots less than one acre allowed where a public sewer system is available.

In areas where public water districts exist, the comprehensive plan has recognized the area as a Rural Community if other characteristics of a community are also present (stores, church, schools, etc.). The definition of a community area in the comprehensive plan provides some basis for the water district to make its plans for future development of its system in terms of the needs of the Rural Community. Rural Communities generally have plan designations and zones which are appropriate to the existing land use and include rural residential uses, commercial uses, and industrial uses.

Those areas that are served by both public water and sewer have urban level services and are deemed suitable for urbanization. The only areas within county jurisdiction that fit this service level are at Wedderburn and Harbor where both rural water and sanitary services are combined. These areas are proposed for urbanization by virtue of being included within the urban growth areas of incorporated cities.

The Curry County Comprehensive Plan recognizes public facility service levels within urban growth boundaries of incorporated cities as identified in the Goal 11 public facility plans adopted with the boundary. Other areas of lower public facility service level have been identified as rural communities. These areas have been given specific boundaries and appropriate plan designation for development at density levels suitable for the carrying capacity of the available public facility systems. Finally all other lands in the county have only rural services and are designated as rural lands by plan designation and zoning.

11.11 PLAN POLICIES REGARDING PUBLIC FACILITIES

The provision of public facilities and services at adequate levels to support the density of development proposed in all areas of the county is an important aspect of the comprehensive plan. Curry County recognizes several levels of public facility service in the county and has determined plan designations that are appropriate to these levels of service. Curry County has also developed the following plan policies with regard to public facilities for implementation of the plan

1. Curry County recognizes three levels of public facilities and services existing in the county: a) rural services; b) rural community services; c) urban services; and has defined these levels as part of the comprehensive plan.
2. Urban service levels located within county jurisdiction are planned to be included within the urban growth boundaries of cities so that these facilities can be further developed in coordination with the adjacent cities through the Public Facilities Plans adopted for each city's urban growth area.
3. Rural community services are located within unincorporated community centers which have organized water districts, fire protection; and have been defined by a community boundary that separates the higher service level from the adjacent rural lands.
4. Rural lands are all other lands that are dependent upon individual sources of water and sewage disposal and have a limited level of other public facilities and services.

5. The comprehensive plan effectively separates urban service levels and rural service levels with urban growth boundaries and rural community boundaries.
6. The comprehensive plan designates uses appropriate to each of these service levels through the zoning and subdivision ordinances that determine land use and minimum lot size.
7. Curry County encourages the development of adequate public facilities and services to the benefit of its citizens where appropriate and economically feasible.
8. Curry County recognizes the need for adequate public facility levels in the rural community areas it has recognized and has materially aided many of these communities in developing these services.
9. Curry County recognizes the rural areas of the county as being a rural service area and does not encourage the provision of additional public services into these areas in order to preserve their rural character.
10. Curry County shall advise community and non-community public water providers of any inadequate water rights for current demand or projected need for the next twenty year planning period. The county shall not issue any land use permit approvals for community and non-community public water system expansions until the provider obtains water right permit(s) of sufficient quantity to meet the projected need for the next twenty year planning period.
11. Curry County shall require the installation of a raw water supply flow monitoring device on all community and non-community public water systems at any time the operator of the system obtains a land use permit approval from the county. The operator shall be required to record water usage on a monthly basis and annually report the data to the Curry County Health Department and the Oregon Water Resources Department.
12. Curry County shall incorporate a provision into the UGB Management Agreement with each city and planning coordination agreement with each water district that the water provider will strive to correct deficiencies in their system to bring the unaccounted water loss for the system to less than 10%.
13. Curry County shall seek to have small public water systems incorporated into larger public water systems or consolidated into a larger system where it is economically feasible and would improve the efficiency of the system and the quality of water being provided to the public.
14. Curry County shall require that public users who are located within the boundary of an existing public water system service area shall utilize that system as a drinking water source rather than developing its own independent public water system unless it can be proven by the person proposing the independent water system that it would be physically or economically not feasible to connect to the existing public water system.
15. Curry County supports and encourages watershed enhancement programs within the county to protect and reestablish valuable riparian vegetation for the improvement of fish and wildlife habitat and water quality.
16. Curry County will limit development within the North and South Floras Lake Exception Areas to a density that will protect the ground water quality in the area by limiting the installation of on-site sewage disposal systems and water wells to the standards allowed by the applicable state regulations for the use of on-site sewage disposal systems.
17. Curry County and the City of Port Orford will examine the feasibility of providing urban levels of public facilities to the existing city UGB, including the Hubbard Creek area and if

the city is not capable of providing public sewer, water and storm drainage facilities to the UGB during the next twenty year planning period then the city and county may make the UGB smaller as a part of the public facility planning process during the next Periodic Review of the City of Port Orford UGB.

18. Curry County and the City of Port Orford will examine the feasibility of providing public sewer service to existing development along the north shore of Garrison Lake as a part of the public facility planning process during the next Periodic Review of the City of Port Orford UGB.
19. Curry County will continue the current ground water monitoring program of the Port Orford Landfill Site as long as the monitoring program is required by the Oregon Department of Environmental Quality and the U. S. Environmental Protection Agency.
20. Curry County and the City of Brookings will examine the feasibility of providing public water service to the existing Rainbow Rock Condominium development and will require connection to the City of Brookings utility system for any future expansion as indicated in the Public Facilities Plan for the Brookings urban growth area.
21. Curry County and the City of Brookings will examine the feasibility of reactivating the Ferry Creek reservoir as an alternate water source for the city's system as indicated in the Public Facilities Plan for the urban growth area.
22. Curry County will limit development within the Lower Winchuck and Winchuck Estates Exception Areas to a density that will protect the ground water quality in the area by limiting the installation of on-site sewage disposal systems and water wells to the standards allowed by the applicable state regulations for the use of on-site sewage disposal systems.
23. Curry County in concert with the state will seek funds to study the use of water in the watersheds of the Cape Ferrelo area in order to attempt to determine the type of water extraction by users, the amount of water withdrawal, water rights, and water availability as soon as it is financially feasible to complete such a study.
24. Curry County will initiate a public education program for the operators of non-community public water systems through its Public Health Department water system permit program.
25. Curry County will advise the schools which have water systems that are deficient in water quality of the problem through its Public Health Department water system permit process and will not issue any land use permit approvals for expansion of the use served by the system until it is brought up to state drinking water quality standards.

AMENDMENTS TO COUNTY PLAN POLICIES

Document: Curry County Comprehensive Plan

Section: 14.8 Plan Policies Regarding Urbanization

Amendment to Plan Policy #15:

Existing Policy (To be Deleted)

15. Curry County in conjunction with the City of Brookings and the Harbor Water District will develop alternatives to water withdrawals from the Chetco River during the later summer months to address the needs of the fish resources in the development of the Public Facilities and Services Plan for the City of Brookings Urban Growth Boundary. The development of the alternatives to water withdrawals will include the following items:

    a) Findings that recognize the fish resource of the Chetco River is significant; the planned population growth and development within the UGB and its planned water withdrawals are uses which conflict with the resource; and the county, city, and special district will consider alternatives and develop a program which will limit the conflicting uses to the extent that they will not negatively impact the fish resource.

    b) The consideration of alternatives and development of a program to limit the conflicting uses will include an analysis and findings on the economic, social, environmental and energy consequences of the decision to allow, limit or prohibit the conflicting uses as required under Statewide Planning Goal 5.

    c) The program to limit the conflicting uses will be specifically state how the reduction in water withdrawal from the Chetco River will be attained and have implementing measures with clear and objective standards. The implementing measures will be adopted as ordinances or regulations by the agencies that control water usage within the UGB.

Policy Added to the Plan (To be Adopted)

15. The City shall implement the Water Conservation Plan. The City of Brookings, in conjunction with Curry County and the Harbor Water District will explore alternatives to reduce water withdrawals from the Chetco River. Consideration of future water use will include the following items:

a) Findings that recognize that the fish resource of the Chetco River is significant;

b) A copy of the study titled "Water Intake Evaluation Report" which contains a finding that water withdrawal at the rate of 5.1 cubic feet per second will not have an adverse impact on the fishery.

AMENDMENTS TO COUNTY PLAN POLICIES

Document: Curry County Comprehensive Plan

Section: 14.8 Plan Policies Regarding Urbanization

Amendment to Plan Policy #8:

Existing Policy (To be Deleted)

8. Curry County has zoned lands located within the various urban growth areas for urban use and these urban land use zones shall not be applied to lands lying outside of a defined urban growth boundary.

Amended Policy (To be Adopted)

8. Curry County has zoned lands located within the various urban growth areas for urban use and these urban land use zones shall not be applied to lands lying outside of a defined urban growth boundary; however, the county may zone lands within an urban growth boundary with rural zoning designations on an interim basis until public facilities are available to allow development to urban use.

Policies Added to the Plan (To be Adopted)

14. With regard to the Brookings UGB the city and county agree that the conversion of land from urbanizable to urban within the UGA must occur in an orderly and well planned manner that considers the economic and environmental issues identified as part of the UGB amendment. With that interest in mind, the following policies are agreed to and incorporated into the comprehensive plan:

    a) Until a public facilities plan is adopted, no land will be rezoned from the existing designation to an urban land use designation. Uses shall be permitted to develop under current county plan and zoning designations in the same manner that they were permitted prior to being included within the UGB.

    b) The owners of properties which are designated as "Master Planned Areas" on the map attached to the UGB agreement shall be required to prepare a master plan prior to development (other than that allowed by the present zoning designation) that sets forth the land use, road circulation system, and plans for municipal water, sanitary sewer, and management of surface runoff. Master plans shall be developed in coordination with and be approved by the special

service providers of these services. Master Plans shall be adopted as post acknowledgement plan amendments pursuant to ORS 197.610 by the City and County before any development permits are issued by the County for construction within the Master Planned Areas. Compliance with the master plan shall be a condition of development permit approval by the city or county.

c) Prior to developing a master plan as required by b) above, property owners shall enter into a collaborative process with the city and county to establish development goals and formalize, by written agreement, procedural and financial considerations for developing and carrying out the master plan. Development goals shall address the mix of housing (type, density and income levels), and non-residential uses, which should be encouraged to provide local services and decrease auto use.

d) All new development shall be required to obtain sanitary sewer service from either the City of Brookings or Harbor Sanitary District depending upon agreed service areas. If waste water treatment capacity is not available, or not legally or physically available, at the time of development an interim on-site sewage disposal system which meets all state and local requirements may be approved. Use of an interim on-site sewage disposal system is limited to a rural level of development or is specifically allowed by the Public Facilities Plan. This interim development approval shall be conditioned to require connection to a public system when capacity becomes legally and physically available.

e) All new development shall be required to obtain public water service from either the City of Brookings or the Harbor Water Public Utility District, depending on agreed service areas. If public water capacity is not available, or not legally or physically available, at the time of development and an interim on-site water system which meets all state and local requirements may be approved. Use of an interim on-site water system is limited to a rural level of development or is specifically allowed by the Public Facilities Plan. This interim development approval shall be conditioned to require connection to a public system when water service becomes legally and physically available.

BEFORE THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF CURRY
IN THE STATE OF OREGON

AN ORDINANCE AMENDING THE	)	
CURRY COUNTY COMPREHENSIVE	)	**ORDINANCE NO. 98-5**
PLAN TO ADOPT AMENDMENTS	)	
RELATED TO DLCD PERIODIC REVIEW)		

WHEREAS, Curry County's Periodic Review Work Program was submitted to the Department of Land Conservation and Development (DLCD) on April 11, 1995, and approved on September 22, 1995 (Order No. 00491); and

WHEREAS, Work Tasks 1.1, 1.2.2, 1.2.3, 1.3, 2.1, 2.2, and 2.5 of the Periodic Review Work Program require Curry County to address the Statewide Planning Goals by amending various sections of the comprehensive plan text, tables, figures and policies; and

WHEREAS, pursuant to the requirements of LCDC the County has been required to review and amend its Comprehensive Plan to assure compliance with Statewide Planning Goals 2, 5, 12, 14, 16, 17 and 18; and

WHEREAS, public hearings have been held in furtherance of this objective in conformance with state law before the Curry County Planning Commission and the Board of Commissioners for Curry County; and

WHEREAS, the Board of County Commissioners has considered the recommendations of the Planning Commission and the public, be therefore,

THE BOARD OF COUNTY COMMISSIONERS OF CURRY COUNTY ORDAINS as follows:

Section 1. **Task 1.1 - ADOPTIONS OF AMENDMENTS TO CHAPTER 14.** Chapter 14 of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "A", attached hereto and by this reference incorporated herein. The present text of Chapter 14 is deleted and replaced with Exhibit "A".

Section 2. **Task 1.2.2 - ADOPTION OF AMENDMENTS TO CHAPTER 5.** Sections 5.3, 5.3.1, 5.3.2, 5.3.3, 5.3.4, 5.3.5, Table 5.3A and the "Mineral Resources" Inventory Map of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "B", attached hereto and by this reference incorporated herein. The present text of these sections of Chapter 5 and the present "Mineral Resources" Inventory Map is deleted and replaced with Exhibit "B".

Section 3. **Task 1.2.3 - ADOPTION OF AMENDMENTS TO CHAPTER 5.** Sections 5.7, 5.9, and 5.12 (C)(E), the "Recreational Resources" Inventory Map and the "Cultural Resources" Inventory Map of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "C", attached hereto and by reference incorporated herein. The present text of these sections of Chapter 5 and the present "Recreational Resources" and "Cultural Resources" Inventory Maps is deleted and replaced with Exhibit "C".

Section 4. **Task 1.3 - ADOPTION OF AMENDMENTS TO CHAPTER 12.** Section 12.4, 12.4.1, 12.4.2, 12.4.3, 12.4.4 and Table 12.4A of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "D", attached hereto, and by this reference incorporated herein. The present text of these sections of Chapter 12 and the present Table 12.A is deleted and replaced with Exhibit "D".

Section 5. **Task 2.1 - ADOPTION OF AMENDMENTS TO CHAPTER 17.** Chapter 17 of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "E", attached hereto and by this reference incorporated herein. The present text of Chapter 17 is deleted and replaced with Exhibit "E".

Section 6. **Task 2.2 - ADOPTION OF AMENDMENTS TO CHAPTER 15.** Section 15.3, Section 15.10 and the "Coastal Shorelands" Inventory Map of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "F", attached hereto and by this reference incorporated herein. The present text of Section 15.3 and Section 15.10 is deleted and replaced with Exhibit "F".

Section 7. **Task 2.2 - ADOPTION OF AMENDMENTS TO CHAPTER 16.** Section 16.1, 16.2 and Section 16.2 of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "G", attached hereto and by this reference incorporated herein. The present text of Section 16.1, 16.2 and 16.8 is deleted and replaced with Exhibit "G".

Section 8. **Task 2.5 - ADOPTION OF AMENDMENT TO CHAPTER 5.** Section 5.12, Subsection F of the Curry County Comprehensive Plan, as amended, is further amended as described in Exhibit "H", attached hereto and by this reference incorporated herein.

Section 9. **SEVERABILITY.** The provisions of this ordinance are severable. If any section, sentence, clause, or phrase of this ordinance or any exhibit thereto is adjudged to be invalid by a court of competent jurisdiction that decision shall not affect the validity of the remaining portions of this ordinance or exhibit thereto.

Section 10. **CODIFICATION.** County Legal Counsel shall have the authority to format the provisions contained herein in a manner that will integrate them into the Curry County Comprehensive Plan consistent with the County Legal Counsel form and style for ordinance codification. Such codification shall include the authority to make format changes, to make changes in numbering systems and to make such numbering changes consistent with interrelated ordinance

Section 7. **EFFECT.** This ordinance being adopted consistent with Oregon Revised Statute Chapters 197 and 215 shall take effect upon its passage.

Dated this 19th day of October 19, 1998

Reviewed as to form:

M. Gerard Herbage
Curry County Counsel

CURRY COUNTY BOARD OF COMMISSIONERS

T.V. Skinner, Chairman

Lloyd Olds, Vice Chairman

Bill Roberts, Commissioner

Pat Ellingson
Recording Secretary

EXHIBIT A

Chapter 14 - URBANIZATION

14.1 INTRODUCTION

Provision of adequate urban and urbanizable lands is essential as a means of meeting the development needs of the county. This chapter of the comprehensive plan describes the population of the county, including its historical growth patterns and distribution, urban growth boundaries of the county's three cities, the rural communities and other committed rural residential areas, and the possible need for additional rural residential lands.

Goal 14 requires that comprehensive plans "provide for an orderly and efficient transition from rural to urban land use. Urban growth boundaries shall be established to identify and separate urbanizable land from rural land." It further states that establishment of these boundaries shall be based upon the following considerations:

(1) Demonstrated need to accommodate long range urban population growth requirements consistent with LCDC goals;

(2) Need for housing, employment opportunities, and livability;

(3) Orderly and economic provision for public facilities and services:

(4) Maximum efficiency of land uses within and on the fringe of the existing urban area;

(5) Environmental, energy, economic and social consequences;

(6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and

(7) Compatibility of the proposed urban uses with nearby agricultural activities.

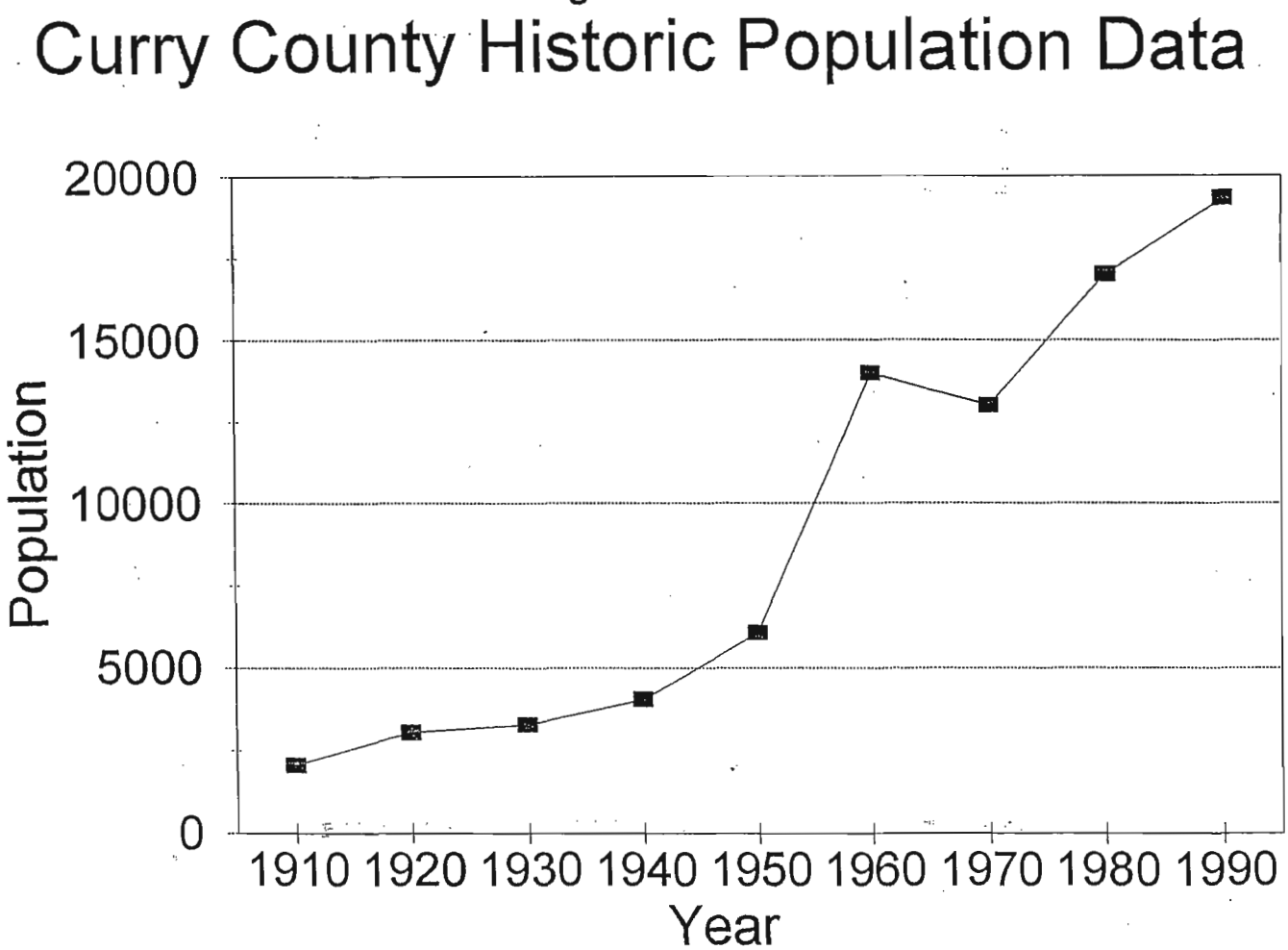
Sufficient amounts of urbanizable land should be designated to accommodate further urban expansion taking into account (1) the growth policy of the area; (2) population needs by the year 2015; (3) the carrying capacity of the planning area; and (4) open space and recreational needs. In addition consideration should be given to the carrying capacity of the air, land and water resources of the planning area.

14.2 POPULATION DATA

A significant portion of the available information on the population of Curry County is from the U.S. Census Bureau decade census data.

14.2.1 Historical Background 1930 - 1990

Figure 14.2A


Curry County Historic Population Data
20000
15000
10000
5000
0
Population
1910 1920 1930 1940 1950 1960 1970 1980 1990
Year

County population has increased from 3,257 in 1930 to 19,327 residents in 1990. The population was stable during the war years, but more than doubled during the 1950's, as illustrated in Figure 14.2A and Table 14.2A. Between 1960 and 1970, county population decreased by about seven percent then grew during the 1970's. Between 1980 and 1990 the population of Curry County increased about 14 percent compared to about 7.9 percent for Oregon and 9.8 percent for the United States.

TABLE 14. 2A
Population for Selected Years, Curry County, Oregon

Year	Population	% Change	Average Annual Change
1910	2,044	----	----
1920	3,025	+ 48.0	+ 4.8
1930	3,257	+ 7.7	+ 0.8
1940	4,031	+ 23.8	+ 2.4
1950	6,048	+ 50.0	+ 5.0
1960	13,983	+131.2	+13.1
1965	13,000	----	- 1.4
1970	13,006 since 1960	- 7.0	- 1.3
1975	14,100	----	+ 3.3
1980	16,992 since 1970	+ 30.6	----
1990	19,327 since 1980	+ 13.7	+ 1.4

Source: 1970 U. S. Census; "Curry County Resource Atlas," 1973; "Overall Economic Development Plan, 1977-78 Action Program", CCD Economic Improvement Association; Center for Population Research and Census, PSU with staff computations and U.S. Census Bureau decade census.

Curry County ranked 24th in population out of 36 Oregon counties in 1990, but its 1980 - 1990 growth rate was 6th in the state. The 1980 - 1990 U.S. Census data comparison indicates that 88% of the population growth was due to in-migration.

14.2.2 Population Growth and Distribution in Curry County

From the time of the 1950 federal census until 1979, Curry County was divided into geographic division similar to those used in the census conducted by CPRC in July 1979. These three areas were the Port Orford division in the northern part of the county, the Gold Beach division in central Curry County and the Brookings division in the south. The Gold Beach division was separated from the Port Orford division at Humbug Mountain State Park and was bounded on the south by Pistol River. These census divisions, shown in Figure 14.2B, differed slightly from later Census Bureau divisions, but had little effect on population totals because the boundaries were in sparsely settled areas. The Harbor unincorporated area south of Brookings is also shown in Figure 14.2B. For the U.S. Census in April, 1980, the County was divided into the divisions

TABLE 14.2B
POPULATION CHANGES IN CURRY COUNTY 1940 - 1990.

	1940	1950	1960	% Change	1970	% Change	1980	% Change	1990	% Change
County	4,301	6,040	13,903	131	13,006	-7	16,992	31	19,327	14
Brookings Division	NA	2,300	5,573	133	6,254	12	9,268	48	7,260	-22
City of Brookings	NA	NA	2,637	NA	2,720	3	3,384	24	4,469	32
Harbor Division	NA	NA	NA	NA	NA	NA	NA	NA	4,426	NA
Gold Beach Division	NA	1,003	4,883	171	4,145	-15	5,001	21	4,760	-5
City of Gold Beach	NA	667	1,765	161	1,554	-12	1515	-3	1,546	2
Port Orford Division	NA	1,057	3,527	90	2,607	-26	2,723	4	2,759	1
City of Port Orford	755	674	1,171	74	1,037	-11	1,061	2	1,025	-3
Agness Division	NA	NA	NA	NA	NA	NA	NA	NA	122	NA
% Population in Cities	18	22	40	NA	41	2	35	-14	36	3
% Population in County	83	78	60	NA	59	-1	65	10	64	-2

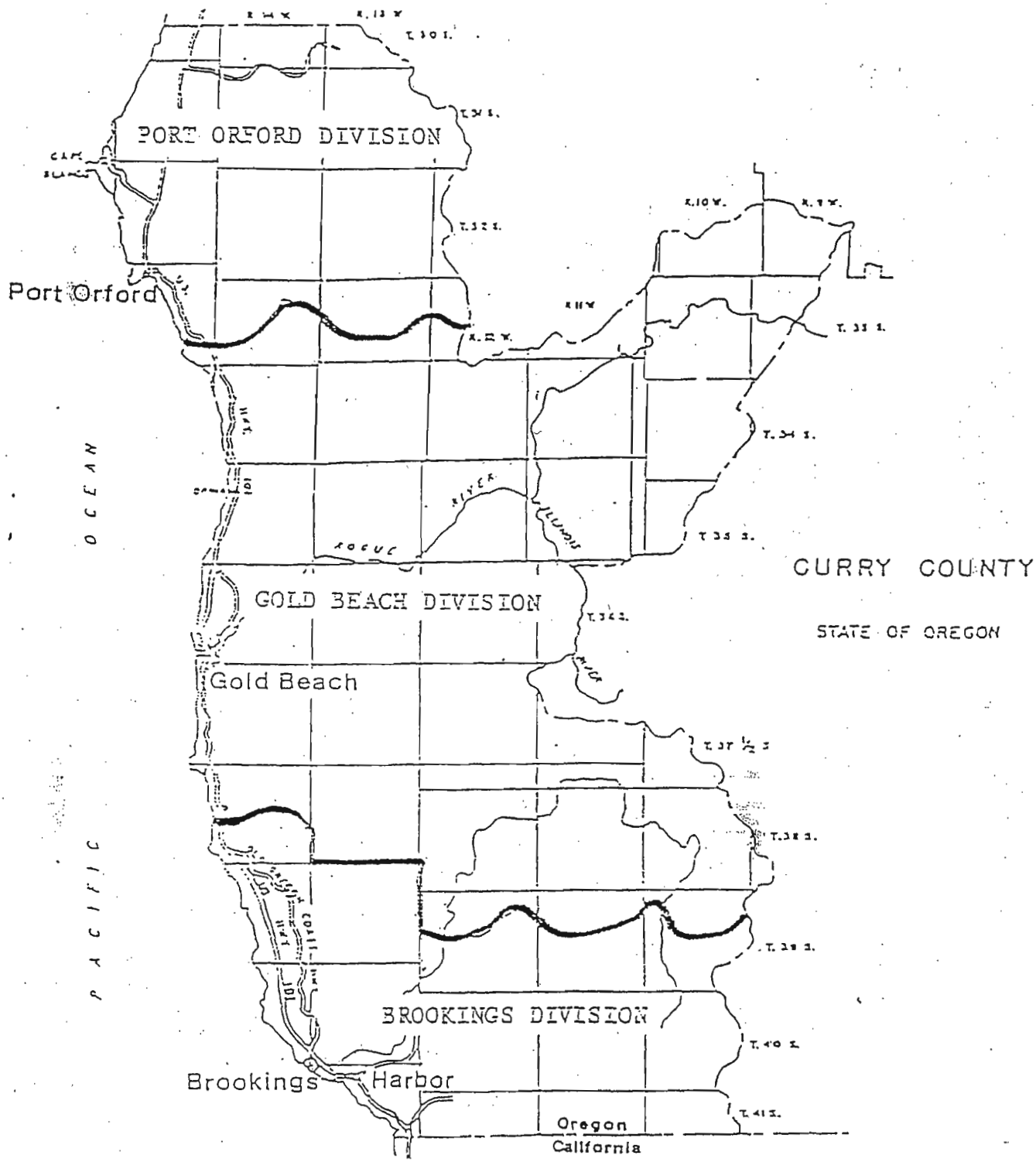


FIGURE 14.2B CURRY COUNTY CENSUS DISTRICTS
1950 - 1970 CENSUS

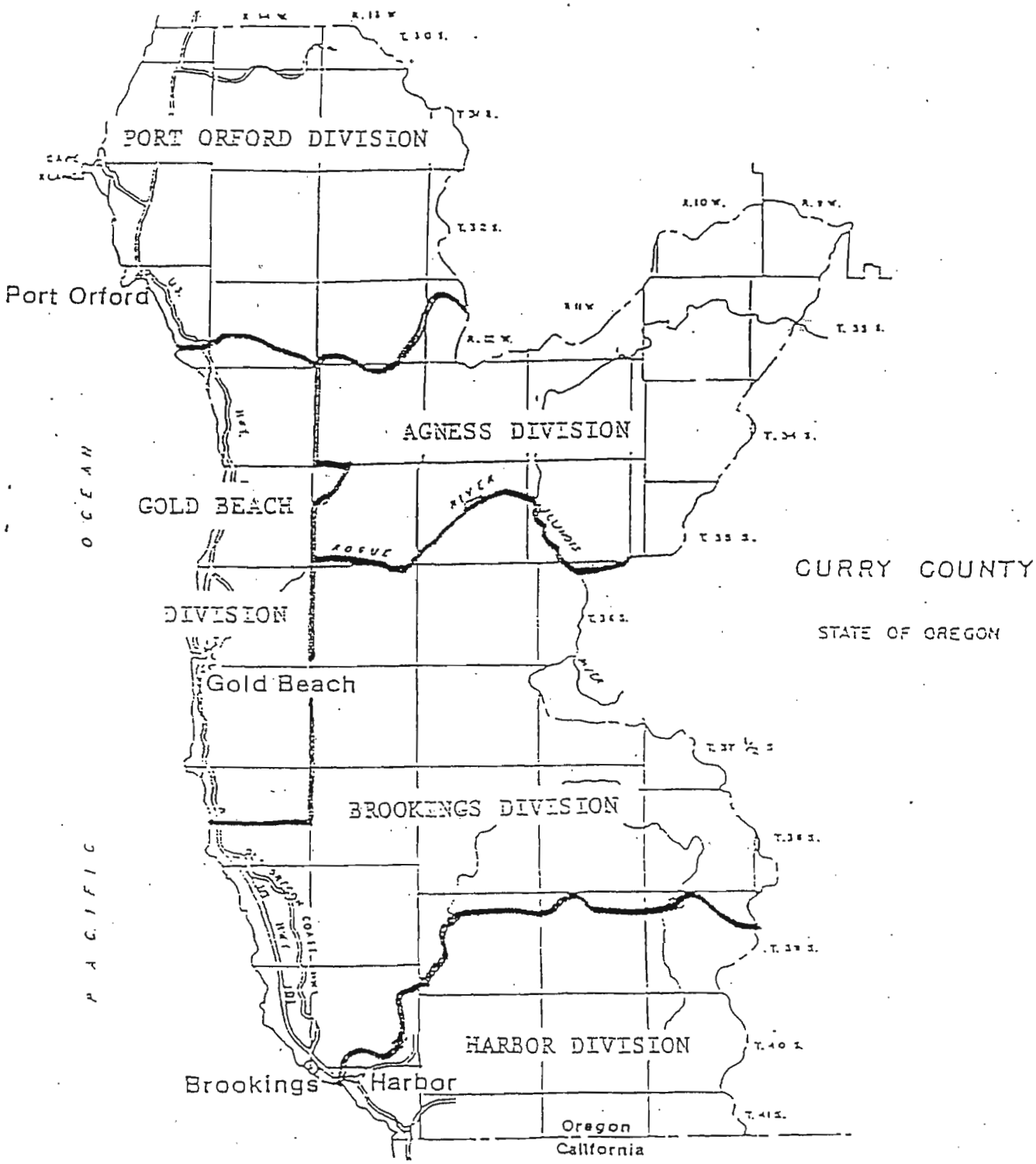


FIGURE 14.2C CURRY COUNTY CENSUS DISTRICTS
1980 CENSUS

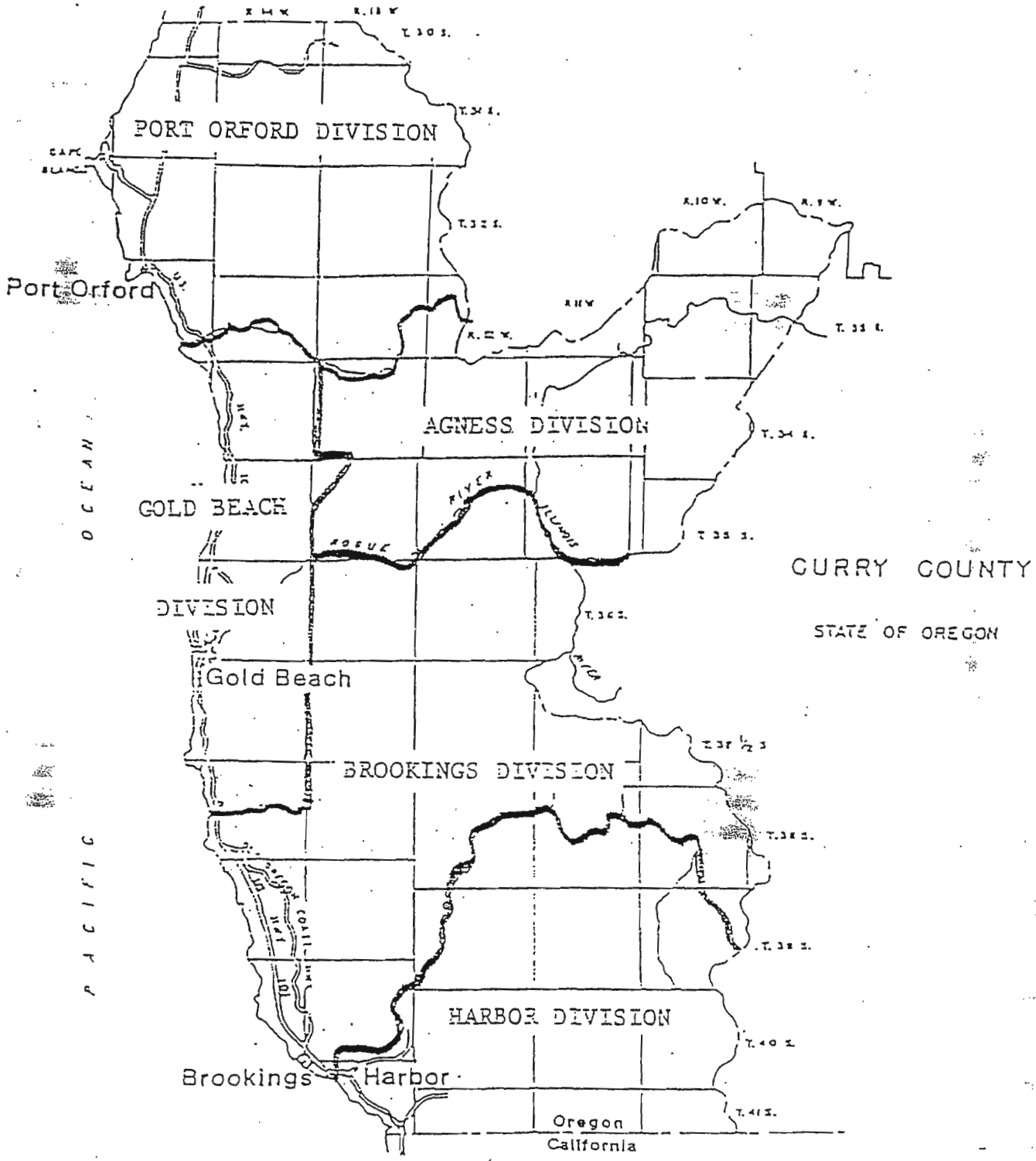


FIGURE 14.2D CURRY COUNTY CENSUS DISTRICTS
1990 CENSUS

shown on Figure 14.2C.

In 1990, more than 60% of the population of Curry County resided in the southern third of the county. Forty-six percent of the county population was centered in the Brookings/Harbor area in 1990.

Since 1950, when the census was first taken by geographic regions within the county, the largest and increasing proportion of the population has resided in the Brookings division. The fraction of the population in the Port Orford division has steadily decreased since 1950, and that portion in the Gold Beach division decreased after 1960 (Figure 14.2D).

14.2.3 Population Growth by County Division

Table 14.2B shows population change for the county, census divisions and incorporated cities between 1940 and 1990. Over the last 30 years the Brookings division grew at the fastest rate, especially between 1970 and 1980, when the population increased by more than 48 percent. The southern third of the county showed a modest gain during the 1960's while the remainder of the county lost population. The population of the City of Brookings has increased by about 32 percent since the 1980 federal census. The district population growth and estimated projections for the future are shown in Figure 14.2E.

The Gold Beach division, the fastest growing area in the county during the "population boom" of the 1950's, has stabilized and increased slightly over the past 20 years. The city of Gold Beach has shown a similar pattern, nearly tripling in population between 1950 and 1960, declining during the 1960's and 1970's. The City of Gold Beach showed a modest 2% increase in population between the 1980 and 1990 census. These trends and estimated growths for the future are shown in Figure 14.2F.

The Port Orford division did not grow as rapidly as the remainder of the county during the 1950's. Between 1960 and 1970, this region showed the largest decrease in population. The 1980 and 1990 census indicate that this part of the county has had only a very small increase in population. Figure 14.2G shows these population changes and estimated growth for the future.

The Curry County population was projected to grow to about 23,000 in the year 2000 based on the highest historic growth rate of the county as shown in Figure 14.2I. Perhaps 65 percent of that future population will be in the Brookings census district, about 23 percent in the Gold Beach district and about 12 percent in the Port Orford district. These projections assume that recent trends in birth rates, mortality rates and net in-migration will not change significantly. The projections could prove to be innaccurate if there were a change in the trend of having a significant increase in the population due to in-migration of retirees.

During the late 1980's a large California state prison facility was constructed in Del Norte County which contributed to population growth in Curry County. This brought about increased growth in the Brookings area, which was already the fastest growing section of the county and affected the accuracy of past population forecasts.

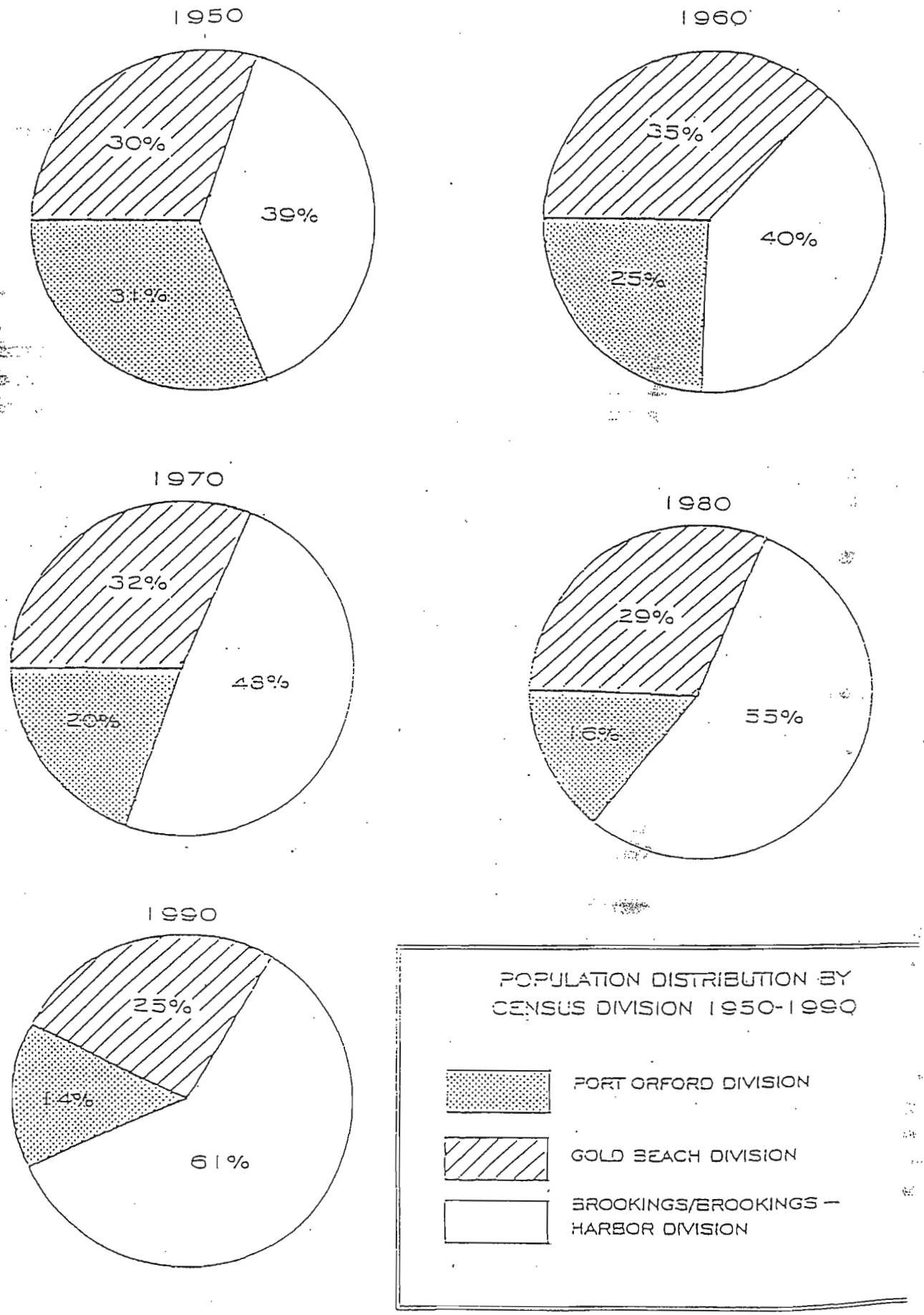


FIGURE 14.2E POPULATION DISTRIBUTION BY CENSUS DIVISION

14.2.4 Household Size

There has been a trend throughout the U.S. toward a smaller average number of persons per household. This demographic phenomenon may be due to a number of factors, including later marriages, higher divorce rates, a preference for smaller families, and a larger number of persons in the 18 - 25 and over - 60 age groups without children or living alone. This trend is also taking place in Oregon and Curry County. Table 14.2C shows decline of household size from 1970 - 1990.

One of the reasons why the average household size of Curry County is lower than the state and national averages is because of the older age structure of the county, which will be discussed later in this chapter. Also a large percentage of the population live in mobile homes and statistically mobile homes have a lower average household size than site built single-family residences. About 33% of the dwelling units were mobile homes in 1990. The inventory of different types of housing units in the county is discussed in Chapter 10 of the plan. There has been a gradual increase in the percentage of dwelling units in the county which are mobile or manufactured homes. This increase is probably related to the increased costs of building a dwelling of conventional construction.

Table 14.2C shows changes in the household size between 1980 and 1990 within the county.

TABLE 14. 2C

AVERAGE HOUSEHOLD SIZE IN U.S. OREGON & CURRY COUNTY

	1970	1980	% Change	1990	% Change
United States	3.17	2.83	-10.7	2.63	-7.1
Oregon	2.81	2.42	-13.9	2.52	+4.1
Curry County	2.80	2.43*	-13.2*	2.30	-5.3

*Based upon the County Assessor ' s data of about 7000 housing units in Curry County in 1980. The preliminary estimate from the U. S . Federal Census indicates a number of about 7499 units, for an average of 2. 26 persons per household.

14.2.5 Age and Structure of Curry County Population

The sex structure of the Curry County population differs from those of the state of Oregon and the United States. U.S. Census Bureau data in 1990 indicated that about 52 percent of the national population were female and 48 percent male. These percentages also held true for the state of Oregon. In 1990 the Curry County population was 49.4% male and 50.6% female. Within the county, females outnumbered males in the incorporated cities.

TABLE 14.2.D

CHANGES IN AVERAGE HOUSEHOLD SIZE, 1970-1980

	1970	1980	% Change	1990	% Change
Curry County	2.80	2.43	-13.2	2.30	-5.3
Brookings Div.	2.84	2.30	-16.2	2.37	2.9
Brookings City	2.85	2.26	-20.7	2.36	4.4
Harbor*	2.62	2.53	-3.4	2.21	-12.0
Gold Beach Div.	2.75	2.54	- 7.6	2.29	-9.8
Gold Beach City	2.98	2.32	-22.2	2.28	-1.7
Port Orford Div.	2.80	2.39	-14.6	2.27	-5.0
Port Orford City	2.72	2.56	- 5.9	2.25	-12.1

*Includes the Harbor sanitary district described in Figure 2 and the area west of the highway and south to the California border.

Table 14.2E shows population by sex and minority status for 1980 and 1990. These data show that 96% of the county population is white and that the composition of the minority population has changed little during the past decade. Migrant workers (primarily for tree planting, horticultural farming, harvesting special forest products, mushroom gathering, etc.) do pass through the county seasonally but these people are considered to be transient workers and are not included under the totals listed on Table 14.2E.

TABLE 14.2E

CURRY COUNTY POPULATION BY MINORITY STATUS

	1980	% Total	1990	% Total	% Change
Total	16,992	100.0	19,327	100.0	13.7
White	16,449	96.4	18,626	96.3	12.9
Black	13	0.1	31	0.2	138.5
Native Amer.	332	2.0	462	2.4	39.2
Asian/Pac. Is.	51	0.3	122	0.6	139.2
Hispanic	225	1.3	359	1.9	59.6
All Other	97	0.6	86	0.4	-11.3

Figure 14.2F

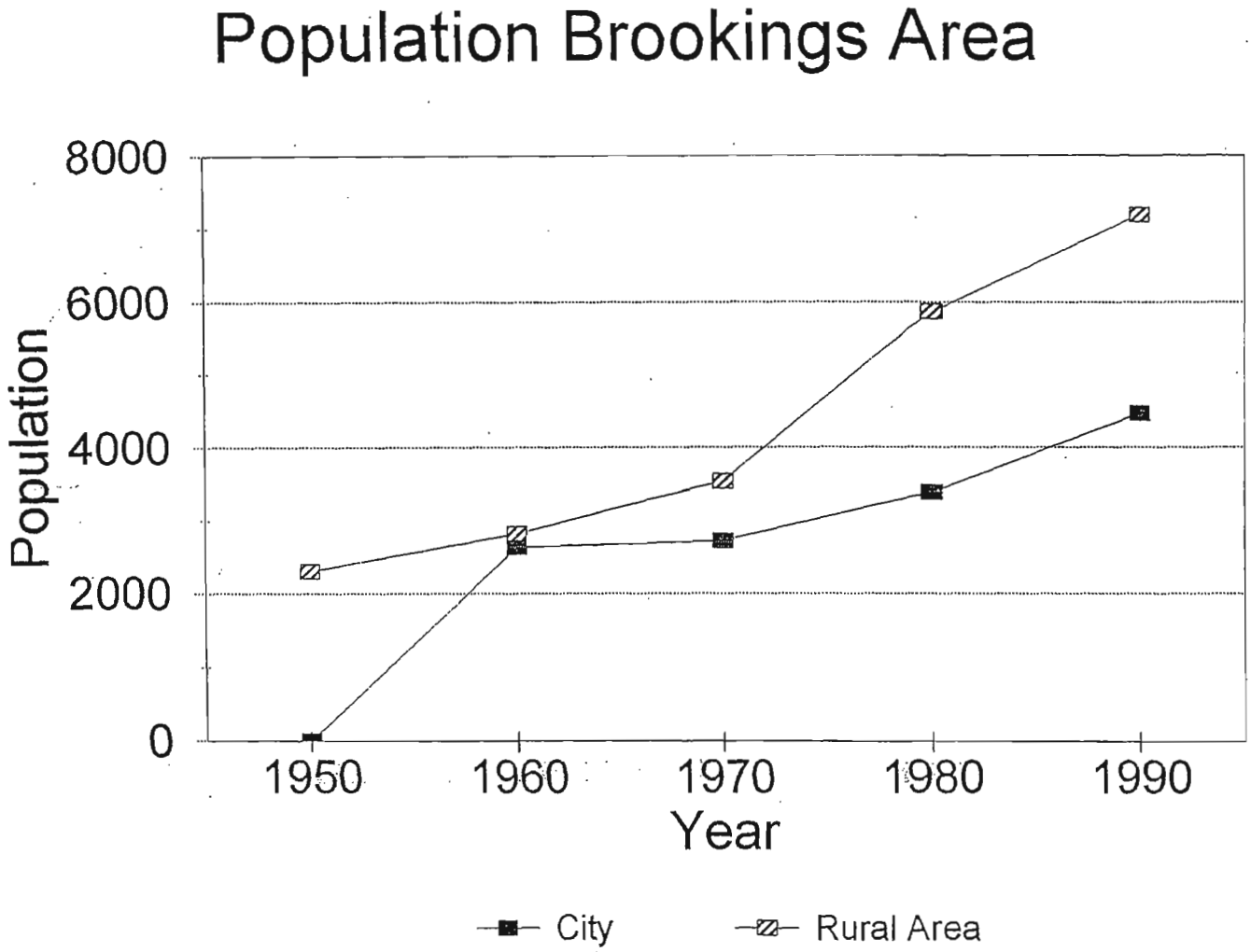

Population Brookings Area
8000
6000
4000
2000
0
Population
1950
1960
1970
1980
1990
Year
City
Rural Area

Figure 14.2G

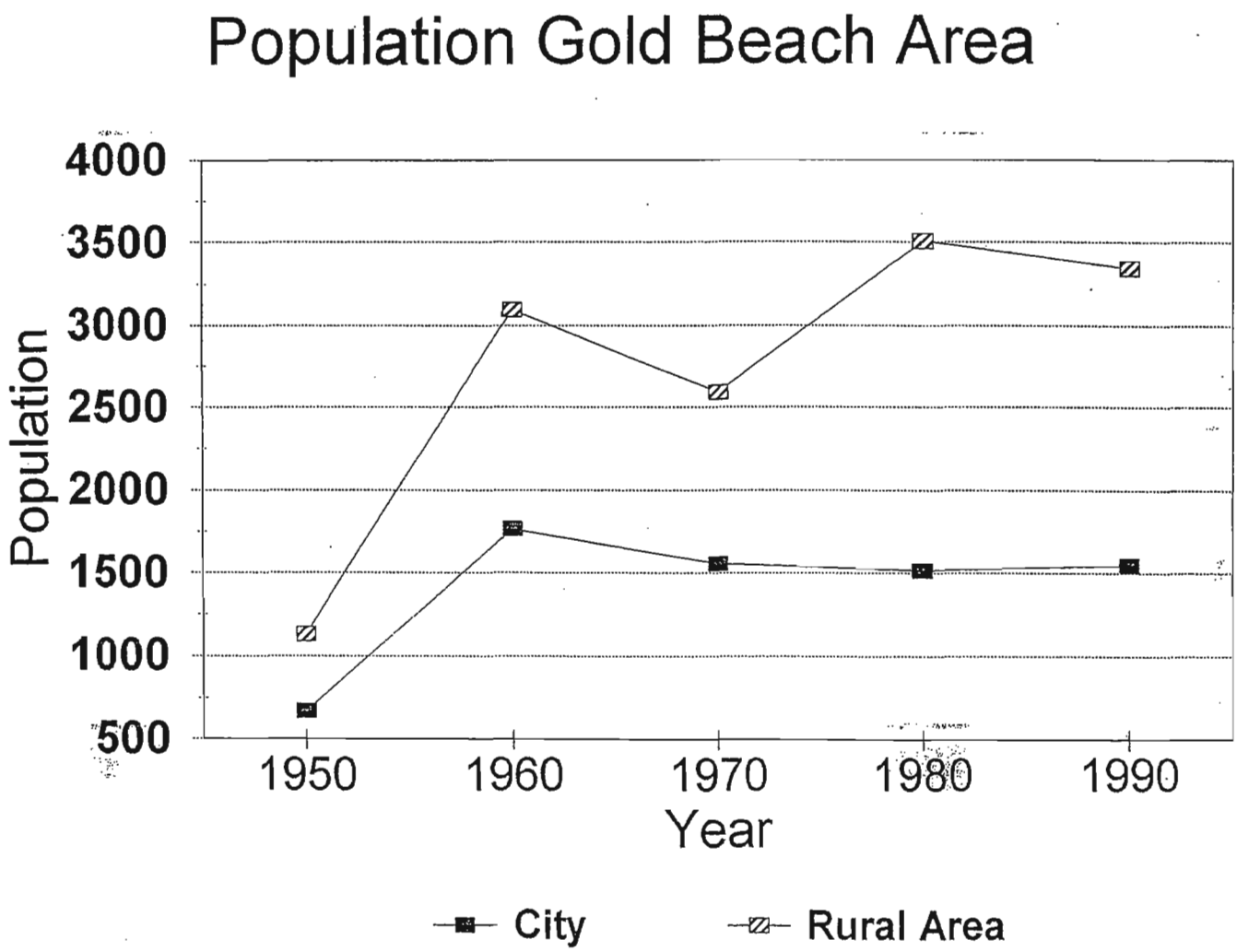

Population Gold Beach Area
4000
3500
3000
2500
2000
1500
1000
500
Population
1950
1960
1970
1980
1990
Year
City
Rural Area

Figure 14.2H

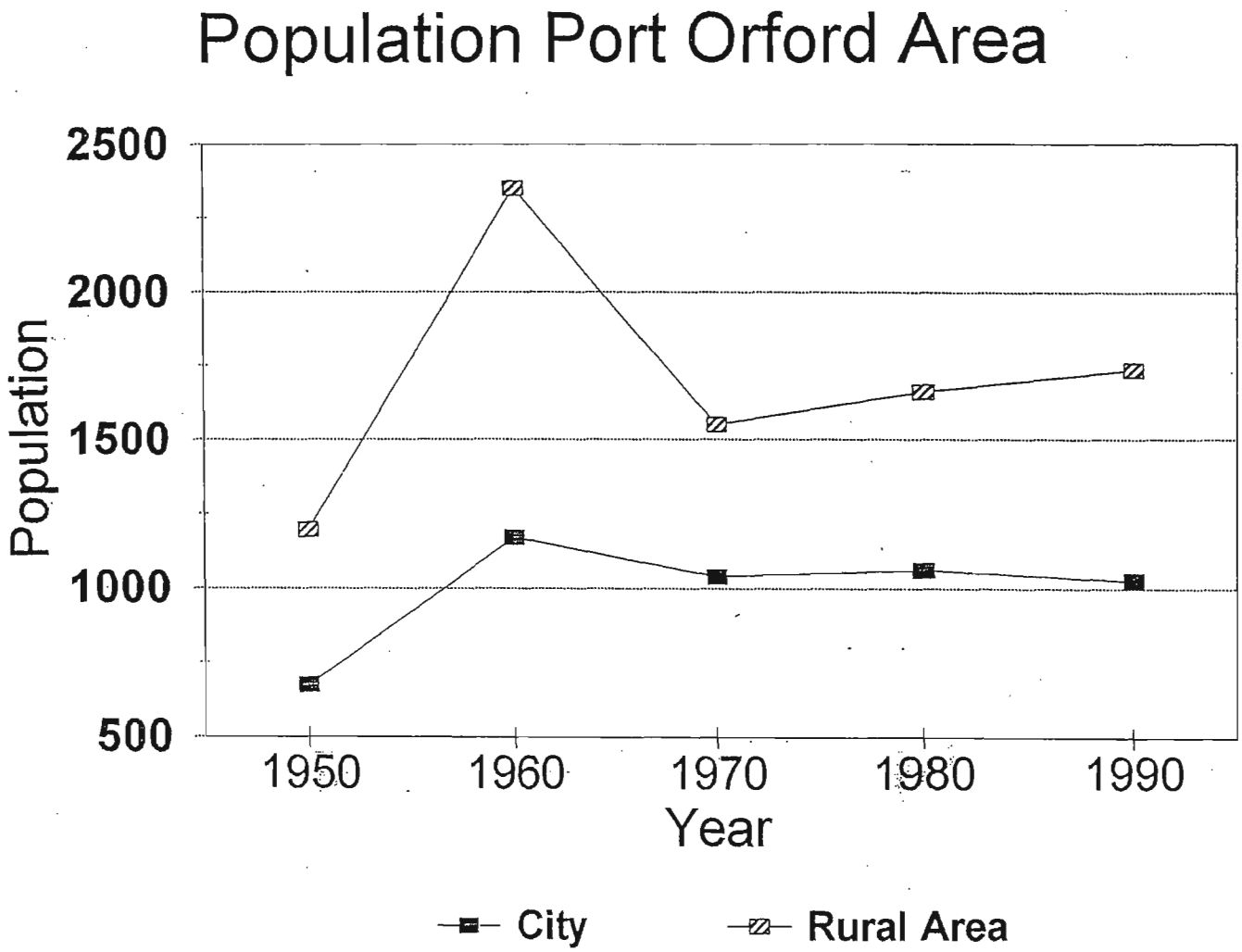
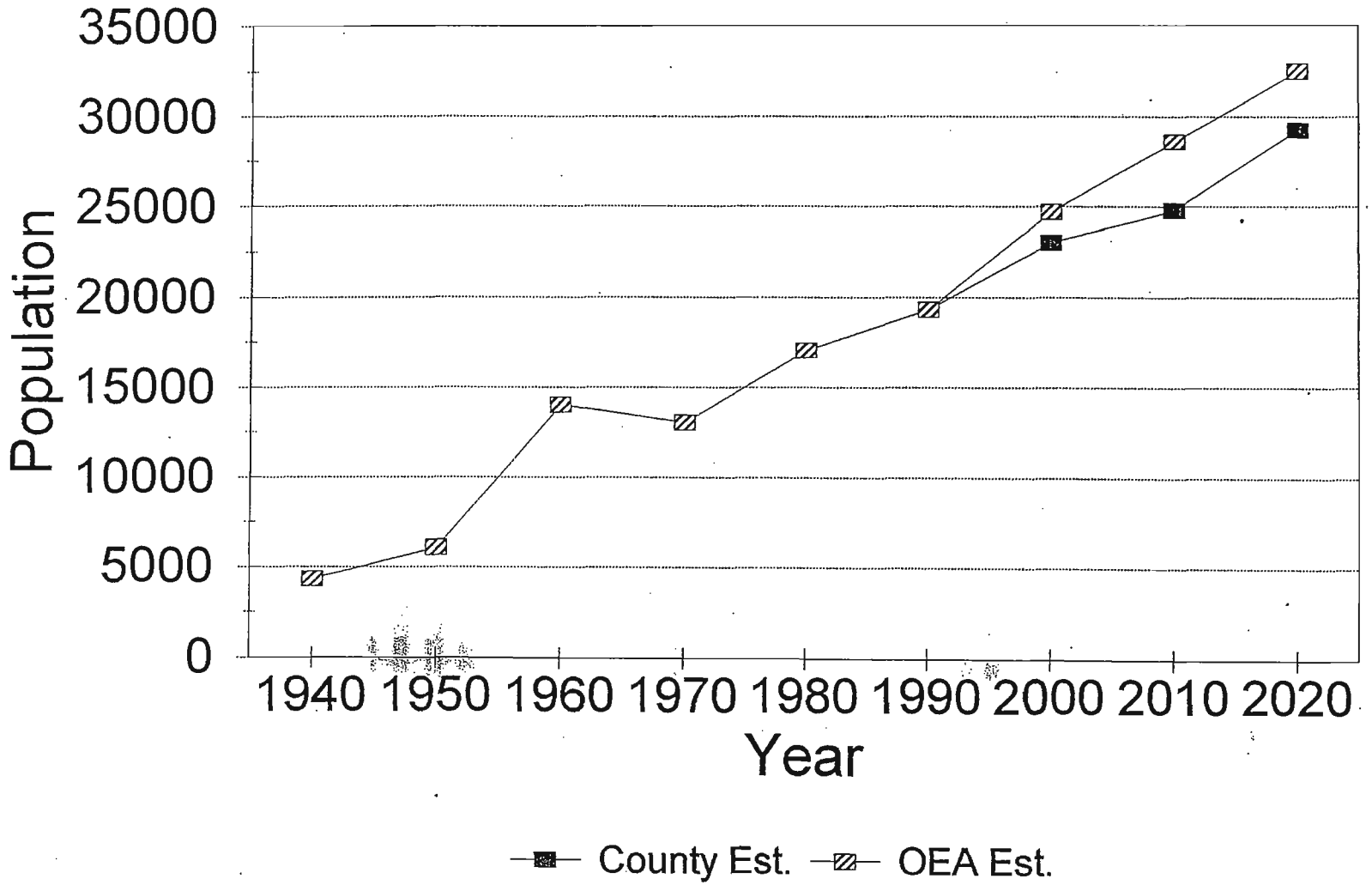

Population Port Orford Area
2500
2000
1500
1000
500
Population
1950
1960
1970
1980
1990
Year
City
Rural Area

Figure 14.2l

Curry County Population Projections



Curry County has an older age structure than the state and of the nation. The median age for the county is 44, compared to 35 for Oregon and the U.S. median age for the county in 1970 was 32. The highest median age within the county is in the Harbor unincorporated area, where more than 34% of the population is older than 65 years.

Another example of how the population structure of the county differs from the state and the nation is the percentage of population in each age group. Table 14.2F and Figure 14.2I point out that the percent of population over 50 years of age is considerably greater in Curry County than for Oregon or the United States. Over 24 percent of the county population is 65 years of age and over, compared to about 14 percent in that age group for Oregon and the U.S.

14.2.6 Population Pyramids

One useful technique for analyzing the age/sex structure of a population is a graph known as a population pyramid. Figures 14.2J, 14.2K and 14.2L compare pyramids for the State of Oregon, Curry County and the Harbor unincorporated area. Size of the population is shown on the horizontal scale of the graph and age groupings on the vertical, with the male population to the left and the female population to the right of the vertical scale.

Figure 14.2J, a 1978 estimate of the age/sex structure of Oregon, shows the largest population in the 15 - 29 age brackets, representing the postwar baby boom, a gradual decline in the 30 - 59 age groups, and a further decline in ages 60 and over. The fact that the base of the pyramid, the population less than 20 years of age, is inverted is an indication that fertility rates are declining and the baby boom has ended.

The Curry County pyramid in Figure 14.2K shows per cent differences by age and sex between 1980 and 1990. A smaller percentage of the population is less than 20 years of age, similar to the pattern of declining birth rates prevalent throughout the United States. The decline in population in the 15 to 29 years old age group and the increase in the 35 to 49 years old age group between 1980 and 1990 is probably related to the post WW II baby boom population getting older rather than in-migration. However, the increase of population in the 60 and over age group is an indication of in-migration. It is interesting to note that the proportion of males to females over 60 years of age is almost symmetrical, as there are more women than men in this age group in the state and throughout the United States.

Figure 14.2L shows the population pyramid of the Harbor unincorporated area, which is both the fastest growing area in the county and has the oldest population. This graph bears little resemblance to the pyramid shaped age/sex structure of Oregon in Figure 14.2J. The population pyramid for Oregon shows the largest population between the ages 15 - 29; whereas, the population pyramid for Harbor shows the largest population between the ages 60 - 74. This demonstrates the dramatic difference in age demographics between Harbor and the state in general.

The changes during the past 20 years in the relative numbers of people in the different age groups within Curry County is shown in Figure 14.2K. Clearly indicated are the decreasing

FIGURE 14.23

POPULATION OF OREGON BY AGE AND SEX 1973

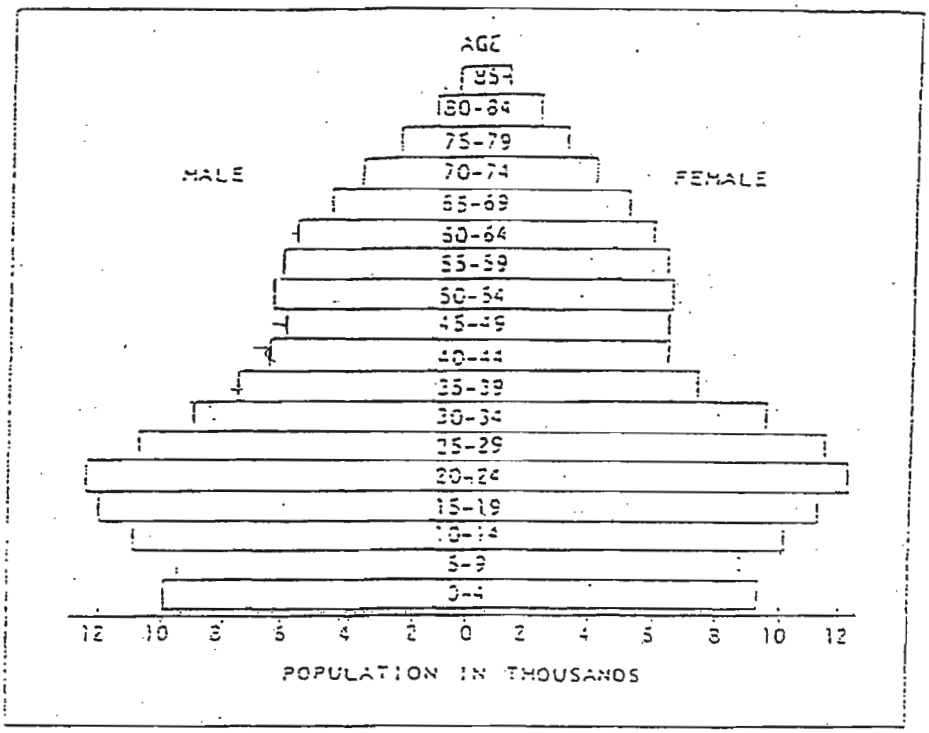


FIGURE 14.XX.

CHANGES IN THE POPULATION STRUCTURE OF CURRY COUNTY 1980-1990.

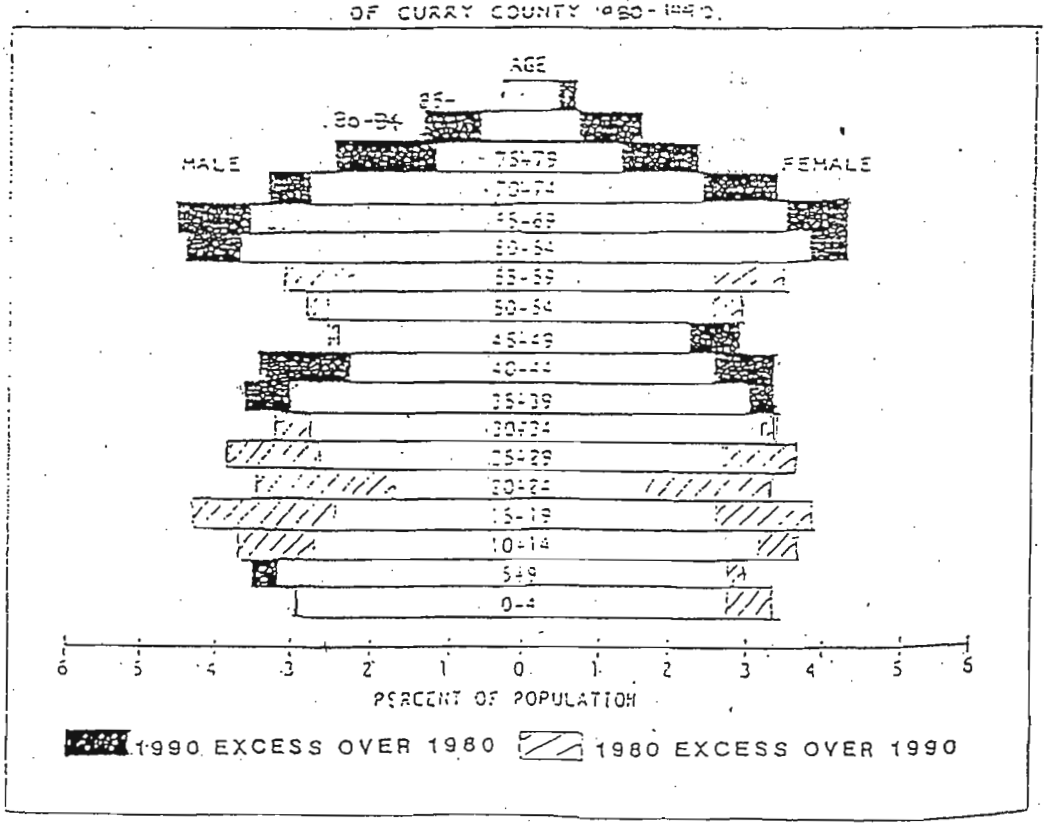


FIGURE 14.II

POPULATION OF HARBOR UNINCORPORATED AREA
BY AGE AND SEX

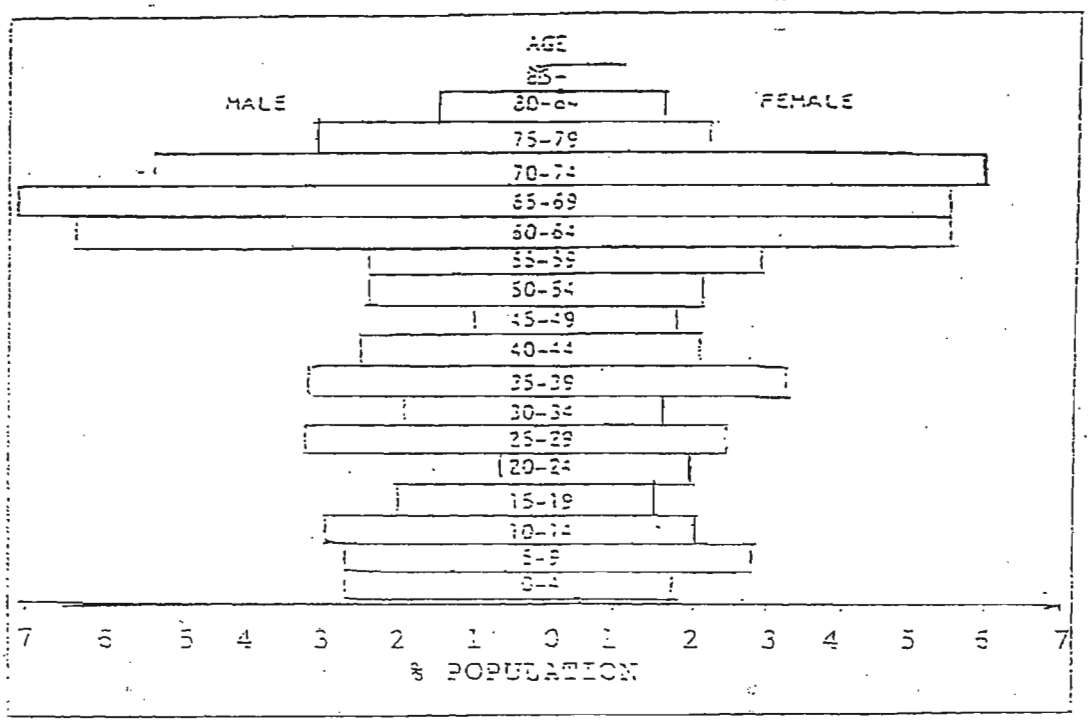


FIGURE 14.2 J

POPULATION OF OREGON BY AGE AND SEX 1980

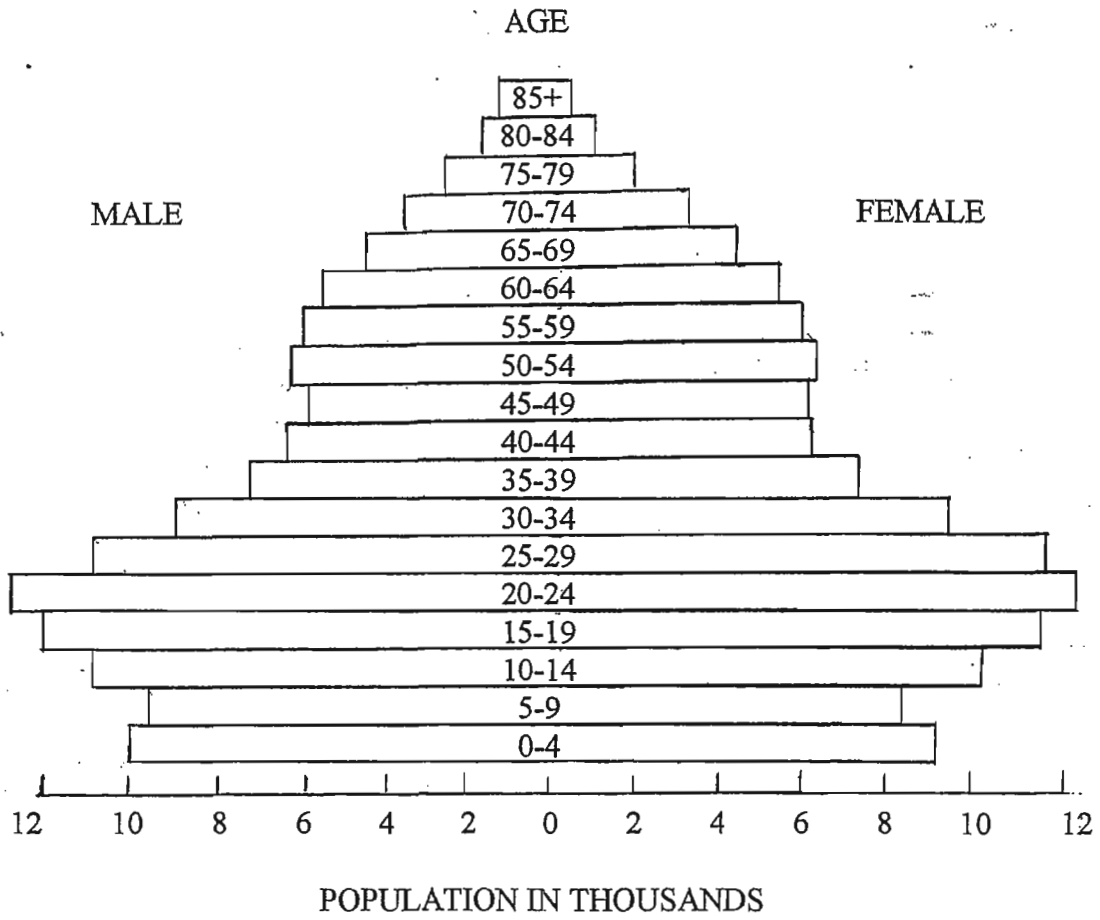


FIGURE 14.2 K

CURRY COUNTY

CHANGES IN POPULATION STRUCTURE BY AGE AND SEX 1980-1990

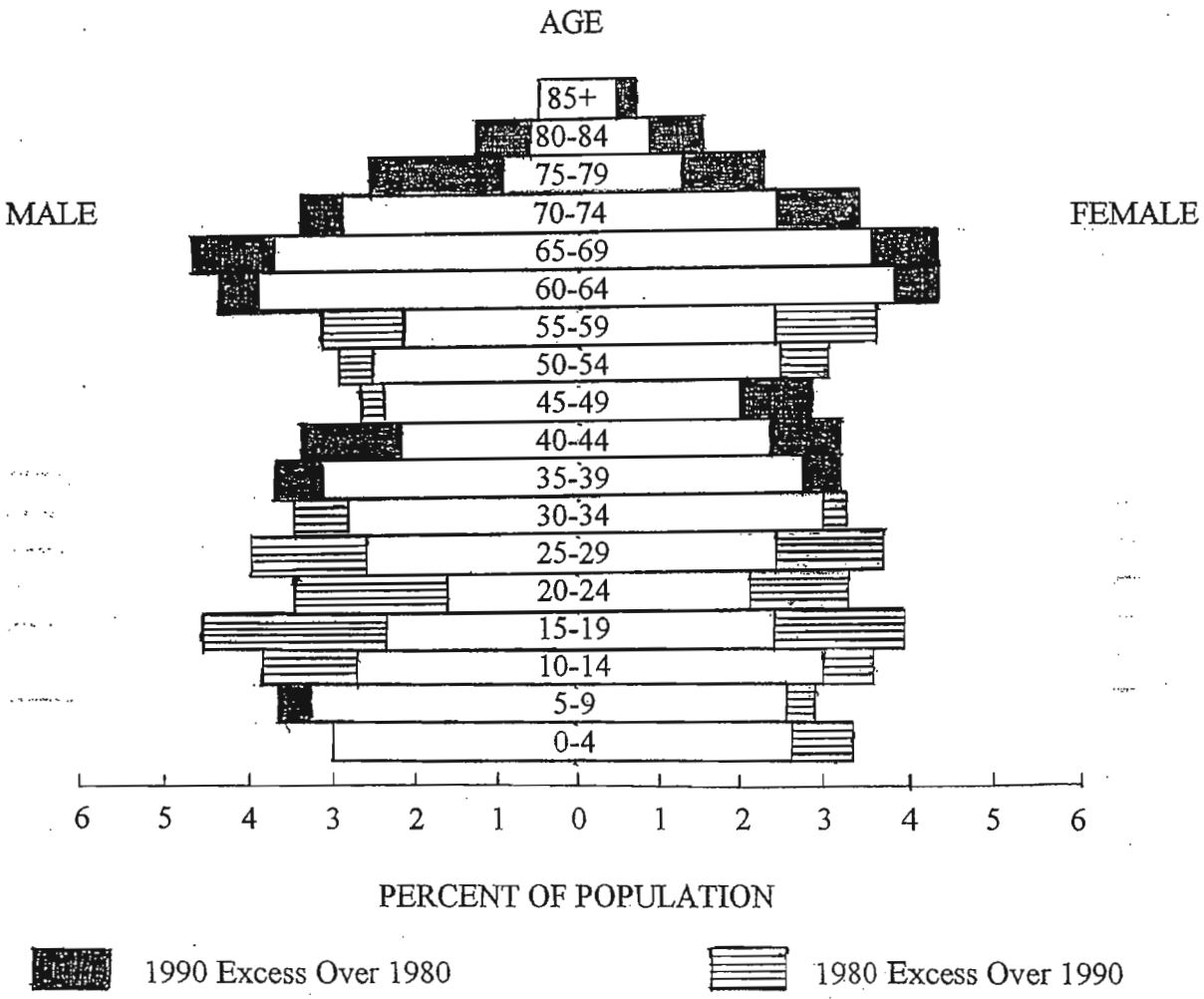


FIGURE 14.2 L

HARBOR COMMUNITY - CURRY COUNTY

POPULATION STRUCTURE BY AGE AND SEX 1990

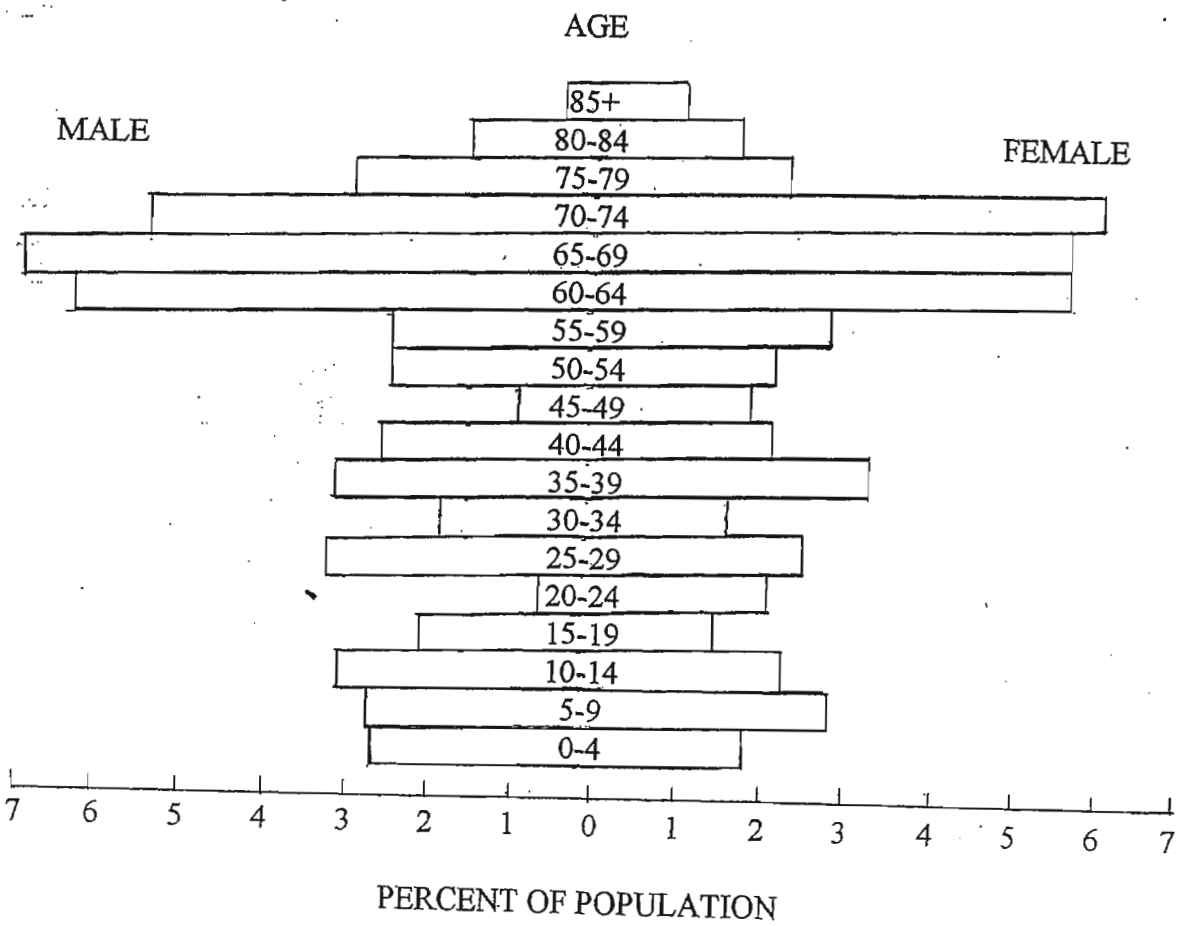


TABLE 14.2F
AGE GROUPS AS A PERCENT OF TOTAL POPULATION

Age Group	1978 United States	1978 Oregon	1979 Curry County	1990 Curry County	%Change 1979-1990
0-4	7.10	7.74	5.99	5.61	-6.3
5-9	7.76	7.25	6.02	6.10	+1.3
10-14	8.39	8.35	7.12	5.88	-17.4
15-19	9.49	9.35	7.78	4.82	-38.0
20-24	9.31	9.76	6.62	3.39	-48.8
25-29	8.43	8.81	7.21	5.47	-24.1
30-34	7.34	7.36	6.35	6.00	-5.5
35-39	6.04	5.90	5.78	7.31	+26.5
40-44	5.18	5.01	4.59	6.89	+50.1
45-49	5.21	4.88	4.55	5.48	+20.4
50-54	5.34	5.11	5.55	5.10	-8.1
55-59	5.13	4.98	6.31	4.68	-25.8
60-64	4.32	4.55	7.10	8.77	+23.5
65-69	3.76	3.82	6.90	8.89	+28.9
70-74	2.84	2.91	4.71	6.92	+46.9
75-79	1.96	2.06	2.31	4.92	+113.0
80-84	1.28	1.32	1.22	2.79	+128.0
85+	1.04	0.77	0.88	1.00	+13.5

proportions of people in the younger (0 - 19 years) age group and the marked increases in the older age group (60 years and older). In contrast, the population of the entire State of Oregon has retained rather constant proportions of people in the different age groups (Figure 14.2J).

People in the younger and working age groups are leaving the county because of lack of economic opportunities. The forest products industry has been steadily declining and further decline is possible. The fishing industry has become diversified because of declining salmon stocks and increased regulation at the state and federal level. Approximately 200 people are employed in farming as resident farm workers. Employment in services has grown. Government employment has decreased in the county in recent years.

These population trends make it clear that Curry County is in a period of demographic adjustment which involves continued population growth that is concentrated geographically in the southern part of the county and is predominantly made up of older people.

14.2.7 Summary and Population Projection

The Oregon Department of Administrative Services-Office of Economic Analysis (OEA) has recently developed long-term population forecasts to the year 2040 for the state (OEA, 1997). The population forecast for the state has been allocated into a specific population projection for each county within the state in order to form a coherent set of forecasts for each area of the state. Each county is expected to adopt a population forecast that is consistent with the state forecast or demonstrate why its forecast is valid although different from the state forecast. In addition, each county must allocate its population forecast among the incorporated cities within the county so that population projection is coherent from the over-all state forecast down to that used by the local units of government. The population projection adopted by the county and coordinated with the cities within the county shall be used in maintaining and updating comprehensive plans of the county and cities.

The OEA data indicate that the population of Curry County is currently growing at a faster pace than Oregon and the United States in terms of an annual percentage growth rate and will probably continue to do so until about the year 2025. Most of the county's population growth between 1970 and 1990 was due to in-migration rather than natural increase (i.e. more births than deaths). The population of the northern and central part of the county is growing at a low rate and the southern area is increasing at a rapid rate. Almost two-thirds of the people live outside the incorporated cities; however, it appears that by the year 2020 only one-half the people in the county will be living outside of the incorporated cities. Much of the growth outside of the incorporated cities is taking place in unincorporated areas adjacent to the cities, particularly in the Harbor area south of Brookings.

In 1990 Curry County's population was 19,327 persons. Various long term projections can be made from the historic population data as shown in Figure 14.2I. The 1990 census data closely follows the average population growth rate for all decades except 1960. The county graphically projected population growth to the year 2020 from this data and determined that the county should have a population of about 29,250. OEA also projected population growth for the county

during this period using a gradually declining growth rate from 2.13% in 1995-2000 to 1.22% 2015-2020 which indicates that the county should have a population of 32,450 in the year 2020. About two-thirds of the county's population will live in the southern county area around the City of Brookings and about one-fourth will live in the central county area around Gold Beach with the remainder living in the Port Orford area.

The OEA and county's population projections are less than 10% apart for the projection years so the county has adopted the OEA forecast for use in the Curry County Comprehensive Plan. Adoption of the OEA projection for future growth of the county includes the methodology used by the state in developing the forecast. Use of the OEA forecast also simplifies coordination of population projections for the county with the state projections for a coherent link between the county and state in long-range planning.

14.3 POPULATION PROJECTIONS OF INCORPORATED CITIES

Each of the cities in Curry County has projected its population growth over the planning period in determining lands needed for urbanization. The population projections for each of the cities as stated in their comprehensive plans are as follows:

- The population of the City of Port Orford in 1990 was 1025 persons. The City of Port Orford and its UGB are projected to have a population of 2561 persons in the year 2000.

- The population of the City of Gold Beach in 1990 was 1,546. The City of Gold Beach and its UGB are projected to have a total of 2960 persons in the Year 2000.

- The population of the City of Brookings in 1990 was 4469 persons. Brookings is projecting a population of 9428 for the city, and 7012 for the urban growth area for a total projected population of 16,440 in the year 2015.

Table 14.3A shows the county's allocation of the total county population to each city within the county for the period 1940 to 2020. Information within this table for the years 1940 to 1995 is based on census data from the U.S. Census Bureau and Portland State University. Projection of future population for the county is from the OEA long-term forecast for Oregon. Projections of future population for each of the cities is based on a 0.25% per year growth rate for the City of Port Orford, a 1.5% per year growth rate for the City of Gold Beach and a 3.0% per year growth rate for the City of Brookings. The population of the county living in the unincorporated area is the difference between the total county population and the total of the city populations.

Table 14.3B shows the percentage of the total population of the county living in each city and the unincorporated area. Projections of the percentage data for the period 2000 to 2020 is based on the projected population for the county and each city. As can be seen there appears to be

Table 14.3A
POPULATION OF CITIES IN CURRY COUNTY AND PROJECTION

CITY	1940	1950	1960	1970	1980	1990	1995	2000	2005	2010	2015	2020
Port Orford	755	674	1,171	1,037	1,061	1,025	1,050	1,063	1,076	1,090	1,104	1,118
Gold Beach	NA	667	1,765	1,554	1,515	1,546	2,080	2,241	2,414	2,600	2,801	3,018
Brookings	NA	NA	2,637	2,720	3,384	4,469	5,220	6,051	7,015	8,132	9,428	10,920
Total in Cities	755	1,341	5,573	5,311	5,960	7,040	8,350	9,355	10,505	11,822	13,333	15,056
Unincorporated	3,546	4,707	8,410	7,695	11,032	12,287	13,850	15,344	16,138	16,754	17,208	17,409
Total County	4,301	6,048	13,983	13,006	16,992	19,327	22,200	24,699	26,643	28,576	30,541	32,465

Table 14.3B
PERCENTAGES OF THE COUNTY'S POPULATION AND PROJECTION

CITY	1940	1950	1960	1970	1980	1990	1995	2000	2005	2010	2015	2020
Port Orford	18	11	8	8	6	5	5	4.3	4	3.7	3.6	3.4
Gold Beach	NA	11	13	12	9	8	9	9.1	9.1	9.1	9.2	9.3
Brookings	NA	NA	19	21	20	23	25	24.4	26.3	27.5	30.9	33.6
Total in Cities	18	22	40	41	35	36	39	37.8	39.4	40.3	43.7	46.3
Unincorporated	83	78	60	59	65	64	61	62.2	60.6	59.7	56.3	53.7
Total County	100	100	100	100	100	100	100	100	100	100	100	100

a gradual shift of the total population from residence in unincorporated areas to residing in the cities as the total population of the county grows in the future.

14.4 URBAN GROWTH BOUNDARIES

Curry County has mutually adopted Urban Growth Boundaries (UGB) with Port Orford, Gold Beach and Brookings to designate land around each city for future urbanization. These areas are intended to provide land for future growth of the city which will be developed with appropriate urban public facilities and services. Each urban growth boundary was adopted along with a management agreement with the city to coordinate the provision of public facilities and land use decisions within those areas. Annexations of lands to the cities are made from the land included within the urban growth boundary so that future growth of the city is coordinated with the plans for urbanization of the area. Further information regarding the urban growth areas is found in the individual city's plans. Curry County has acknowledged the boundaries and has accounted for these lands in its assessment of future housing needs.

14.5 RURAL COMMUNITIES

There are several areas of the county which have the characteristics of communities but are not incorporated as cities. Oregon Administrative Rule 660-22-010 (6) defines a "Rural Community" as an unincorporated community which consists primarily of residential uses but also has at least two other land uses that provide commercial, industrial, or public uses (including but not limited to schools, churches, grange halls, postoffices) to the community, the surrounding rural area, or to persons traveling through the area. Detailed discussion of each of the rural communities described below is given in the Exceptions Document part of the comprehensive plan.

14.5.1 Community of Langlois

The community of Langlois is an unincorporated residential, commercial, and industrial area lying in the north end of the county approximately 13 miles north of the City of Port Orford. The area within the community is predominantly residential with commercial uses being located along Highway 101, which bisects the community. There is also a sawmill located in the central part of Langlois.

Langlois, being unincorporated, has no corporate boundary, however, it is served by a water district and a fire district which have separate boundaries that encompass the separate service areas. The boundary defined for this community includes about 342 acres of land. This boundary also effectively separates the urban uses in the area from the surrounding agricultural and forestry uses.

The community of Langlois has public water service, fire protection, and schools which are provided by special districts. Police protection and street maintenance are provided by Curry County and the State of Oregon.

The Langlois Rural Water District provides the community with public water service. The

water system consists of an intake and pump located on Floras Creek, a storage tank filtration plant, and distribution system. This system has a storage capacity of about 100,000 gallons.

The Langlois Rural Fire District serves the community from a fire station located on First street near the center of Langlois. The fire district is a volunteer fire department with approximately 15 volunteers. The insurance classification rating is 9, similar to the other small rural fire districts in the county.

A wide range of commercial uses are found within Langlois including a market, feed store, several shops, restaurants, and a service station. These sites are primarily located on U.S. Highway 101 which bisects the community. The Tucker sawmill is located in the center of the community and is the only active mill in the northern part of the county.

14.5.2 Community of Ophir

The Community of Ophir is an unincorporated residential, commercial, and industrial area lying along the coast just north of the Nesika Beach Community, and about nine miles north of Gold Beach. The community is primarily residential, with a grade school, small sawmill/myrtlewood shop and RV park/restaurant being located along Ophir Road, which runs through the community area.

Ophir is served by a public water district and a fire district which have separate boundaries that encompass separate service areas that are much larger than the Ophir Rural Community defined by this plan. The boundary for this community includes the most intensively developed lands along both sides of Ophir Road between Nesika Beach and Euchre Creek. Also included in the community boundary are the McNelis - Whipper subdivision and the Surf Hills Subdivision. This line effectively separates urban and rural uses in the area from the neighboring forest lands and defines a community area of about 555 acres. Ophir community area has water service, fire protection, and schools which are provided by special districts. Police protection and street maintenance are provided by Curry County.

The Ophir Water District provides the community with public water service through an agreement With the Nesika Beach Water District. The system consists of a 200,000 gallon storage tank and distribution system. Presently the system has about 65 users.

The Ophir Rural Fire Protection District serves the community from a fire station located on Nesika Beach Road near the center of the community of Nesika Beach.

A limited number of commercial uses are found within the community including a sawmill/store and RV park/restaurant. In addition, the Ophir Elementary School serves the area.

14.5.3 Community of Nesika Beach

The community of Nesika Beach is an unincorporated residential and industrial area lying between the coast and U.S. 101 about 7 miles north of the City of Gold Beach. The community

has a commercial core with stores located along Nesika Beach Road, the main access road. Residential uses are located along the shoreline to the west of Nesika Beach Road and on both sides of U.S. 101.

The community of Nesika Beach, being unincorporated, has no corporate boundary. However, the community is served by a water district and fire district which have separate boundaries that encompass the separate service areas that are larger than the Nesika Beach Rural Community as defined by this plan. The boundary of this community includes about 321 acres. This boundary also effectively separates the urban and quasi-urban uses in the area from the surrounding forestry uses to the south and east.

The community of Nesika Beach has public water service and fire protection which are provided by special districts. Police protection and street maintenance are provided by Curry County.

The Nesika Beach Rural Water District provides the community With public water service. The water system consists of an intake and pump located on the Rogue River above the head of tide, a storage tank, and distribution system. This system has a storage capacity of about 200,000 gallons and a 100,000 gal/day supply capacity. In 1979, the system had about 156 users with some being located outside the district boundary along the supply line from the Rogue River. The pumps and supply line for the Nesika Beach Water District also supply the Ophir Rural Water District which as distribution lines extending about 3.5 miles to the north along Highway 101 from the community of Nesika Beach.

The Ophir Rural Fire Protection District serves the community from a fire station located on Nesika Beach Road near the center of the community of Nesika Beach. The fire district is a volunteer fire department with about 15 volunteers. The district did not report an insurance classification, but it is probably at a level similar to the other small rural fire districts.

14.5.4 Community of Agness

The community of Agness is an unincorporated residential and commercial area at the junction of the Rogue and Illinois River, approximately 30 miles east of Gold Beach. The Agness community area is recognized in both the Oregon State Scenic Waterways Regulations and the Federal Wild and Scenic River Systems.

The Agness community boundary is defined as an enclave of developed private land located along the Rogue River at the historic community of Agness which is surrounded by the Siskiyou National Forest. This includes about 491 acres of land and effectively separates an area that is developed with residential and resort commercial uses from the surrounding national forest land.

The Agness area does not have a community water or sewer available. Fire protection is provided by the Agness-Illahe Volunteer Fire Department. The station is located about one mile up the river at Coon Rock Bridge. This location was chosen as being the most central in terms of

road access, there being no bridge over the Rogue within the community boundary. A public school and library are located in the central part of the community. Police protection is provided by Curry County, and road maintenance is provided by Curry County and the U.S. Forest Service

Commercial uses within the Agness community are primarily related to serving the recreational tourist and include several tourist lodges, a store and service station and recreational vehicle park. Lands surrounding the commercial core of the community are in rural residential use with both seasonal use and permanent dwellings.

14.6 RURAL LANDS EXCEPTIONS

Curry County has prepared an Exceptions Document which analyzes all rural lands outside of urban growth areas in terms of the Statewide Planning Goal 2 requirements for exceptions to other Goals which is part of this comprehensive plan. The Exceptions Document contains the findings which document how certain lands were either physically developed or irrevocably committed to development and thereby, an exception to the requirements of the resource goals. Through this process the county has identified a total of 8252 acres of rural lands with dwelling units which are located within 76 rural exception areas that have been defined throughout the county.

14.7 ZONING OF RURAL LANDS

Rural lands described in the comprehensive plan fall into two district categories, rural communities and rural exception areas, which delineate zoning. Lands which have been defined as being located within one of the four rural communities have been variously zoned for Rural Industrial (RI), Rural Commercial (RC), Rural Resort Commercial (RRC), and Rural Community Residential (RCR) use.

Lands included within the various rural land exception areas have been zoned for Rural Residential (RR) use. The Rural Community Residential (RCR) zone has minimum lot sizes of 1, 2.5, 5 and 10 acres. The RCR 1 and 2.5 acre minimum lot size zones are only applied to those lands which are physically developed or are irrevocably committed to urban use and are thereby an exception to Goal 14. The RCR 5 and 10 acre minimum lot size zones are applied to areas within the rural communities which are physically developed or irrevocably committed to residential development of a more rural nature so that an exception to Goal 14 has not been taken under the Goal 2 process. The Rural Residential (RR) zone has minimum lot sizes of 5 and 10 acres which have been applied to the various rural land exception areas based upon the physical development, degree of parcelization, and other factors existing in each particular area.

The Rural Industrial (RI), Rural Commercial (RC) and Rural Resort Commercial (RRC) zones have also been applied to many isolated individual parcels of land located throughout the county which are physically developed with industrial or commercial uses at present.

14.8 PLAN POLICIES REGARDING URBANIZATION

1. Curry County defines "rural uses" as those uses which are located outside of urban growth boundaries including non-urban agriculture, forestry, open space, sparse settlement, small farms or acreage homesites with no or hardly any public services.

2. Curry County defines "urban uses" as those which are high intensity residential, commercial or industrial uses located inside urban growth boundaries, or outside urban growth boundaries where an exception to Goal 14 has been justified.

3. Curry County recognizes the urban growth boundaries of Port Orford, Gold Beach and Brookings and the mutually adopted Management Agreements for these areas.

4. The county will work to coordinate with the respective cities with regard to land use decisions affecting the urban growth areas.

5. The county will cooperate with the respective cities to review the established urban growth boundaries based upon consideration of the following:

   a) demonstrated need to accommodate long-range urban population growth requirements;

   b) need for housing, employment opportunities, and livability;

   c) orderly and economic provision for public facilities and services;

   d) maximum efficiency of land uses within and on the fringe of the existing urban area;

   e) environmental, energy, economic and social consequences;

   f) retention of agricultural land, with Class I being the highest priority for retention and Class VI the lowest;

   g) compatibility of the proposed urban uses with nearby agricultural activities.

6. Curry County recognizes the rural communities of the county as an additional type of development in the county and has determined boundaries for these communities based on the existing land use in the community and the requirements for a Goal 2 exception to Goal 14.

7. Curry County recognizes rural lands in the county and seeks to retain the rural character of these lands by limiting the development of these lands through rural zoning which will retain the rural character of these areas as reflected in the existing lot size pattern.

8. Curry County has zoned the lands located within the various urban growth areas for urban use and these urban land use zones shall not be applied to lands lying outside of a defined urban growth boundary.

9. Curry County has zoned lands located within the rural communities for either urban use or rural use based on Goal 2 exceptions to Goal 14 for the areas zoned for urban uses; the urban use zones Rural Industrial (RI), Rural Commercial (RC), Rural Resort Commercial (RRC), and Rural Community Residential (RCR-1 and RCR-2.5) shall not be applied to areas presently zoned for rural use unless a Goal 14 exception is approved by the county.

10. Curry County has zoned lands located within the various rural land exception areas for Rural Residential (RR-5 & RR-10) use which limits rural residential development to dwellings on existing parcels and the development of new parcels at a density of 5 acre or 10 acre minimum lot sizes.

11. Curry County recognizes that rural residential development in the Floras Lake area (Rural Lands Exception Areas 1 and 2) is unique because of the existence of the Pacific City Town Plats, therefore, development in these exception areas will be limited to one dwelling unit per contiguous ownership of record (all contiguous platted lots in single ownership) and further divisions of land will be limited to a 5 acre minimum lot size.

12. Curry County will limit commercial uses on rural lands; new commercial uses shall be no greater than 2500 square feet in area allowed only upon a finding that they are appropriate for, and limited to the needs and requirements of the rural area in which they are located; new commercial uses in the Rural Resort Commercial zone shall be limited to hotels, motels, and lodges no greater than 5000 square feet in size and no more than 40 lodging units. The county will not allow the rezoning of land to Rural Resort Commercial or Rural Residential without an approved Goal 2 exception to Goal 14.

13. The establishment of new rural industrial uses not legally established prior to August 12, 1986, will require a "reasons" exception (OAR 660-04-022) to Statewide Planning Goals 3 and/or 4, 11, and 14 and other Goals applicable to the specific site.

EXHIBIT B

Chapter 5 - NATURAL RESOURCES

5.3 MINERAL AND AGGREGATE RESOURCES

Curry County has a wide variety of mineral resources ranging from ores of gold, silver, platinum, copper and nickel to gravel, sand and rock as building and construction material. The presence of these resources in the county is related to the complex geologic history of the area and the diverse bedrock geologic units exposed in this geologic province. Mineral resources of the county are generally scattered evenly over the entire area of the county; although certain ores are confined to specific sites or districts.

Preliminary inventory mapping of the mineral and aggregate resources was done on a county-wide basis using a base map identical to other resource inventory maps. Basically, the inventory data consists of plotting mines and prospects, stone quarries, and sand and gravel pits by location. In addition, the county mapped the known extent of marine terrace deposits known to contain chrome "black sands" and the extent of nickel laterites. The source of the data for this map was from a study of the mineral resources of Curry County by the State of Oregon (DOGAMI, 1977). This reference contains as much information about the locations, extent of the mineral deposits and potential for future production as is presently known. The mineral and aggregate inventory has been up-dated with information from the 1991 Mineral Information Layer for Oregon by County (MILOC) database (Gray, 1991).

5.3.1 Chrome

Chromite is the only commercial source of chromium metal and is found in minable quantities in Curry County. In the county chromite occurs in the ultramafic rocks (periodite and serpentinite) and in placer deposits of marine black sands. Chromite production in the county has been restricted to periods of wartime emergency. Chromite was first mined in 1918, and then again from 1941 to 1958. The largest producer was the Sourdough Baldface mine which had a total production of 1,567 long tons (DOGAMI, 1977). In addition to the chromite, black sand deposits are found on the coastal terraces and beaches. The black sands contain several minerals of potential value, including gold, platinum, magnetite, garnet, zircon, and ilmenite. Several of these black-sand deposits have been explored and periodically mined since before the turn of the century. Production data from these sources does not indicate very sizable production from any of the black sand deposits.

5.3.2 Gold

Gold and gold mining has played an important part in the history of Curry County from

the standpoint of attracting people to the area and bringing about the first settlement of the county. During the 1850's, the first mining activity in Curry County was gold prospecting along the beaches in the vicinity of Port Orford and Gold Beach. The more important gold producing beaches were at Ophir, Pistol River, Gold Beach, Port Orford and Cape Blanco (Horner,1918). The best producing river gravels were the Sixes River, upper Chetco River and Boulder Creek and Mule Creek on the Rogue River. Total production figures for gold from the county are incomplete but Curry County is one of the smaller gold-producing counties in the state ranking behind the neighboring Jackson, Josephine, Douglas and Coos Counties. Future potential for gold production in Curry County is probably limited to mining of deposits in the Mule Creek and upper Chetco areas (DOGAMI, 1977). Gold prospecting, however, does provide a form of recreational activity to many county residents especially in the Sixes River area.

5.3.3 Nickel Laterites

Nickel laterites are a soil type that is derived from the chemical weathering and leaching of peridotite and contain nickel. Peridotite and serpentine rock types contain about 0.2% nickel but the weathering process of converting the rock to a soil concentrates the nickel in the soil (DOGAMI, 1977). These nickel-rich soils are found in various parts of the county and are probably the only ore that has potential for commercial production in the foreseeable future.

Nickel laterites are predominantly located in the southeastern part of the county specifically in the vicinity of Red Flat (the upper Hunter Creek area) and Chrome Creek drainage (see Mineral Resource Inventory Map). There are seventeen separate areas of nickel-bearing laterite in Curry County which have been described in detail in the Department of Geology and Mineral Industries report (DOGAMI, 1977). Several of these have great potential for future production subject to the world market potential for nickel and reclamation costs following strip mining. Sampling of the Red flat deposits in Curry County for nickel mining was carried out under U. S. Forest Service permit between 1985 and 1990.

5.3.4 Other Minerals

Curry County has also had production or is known to have potentially minable quantities of the following materials: cobalt, copper, silver, iron, manganese, mercury, platinum, asbestos, borax, and gemstones. Most of these occurrences are widely scattered throughout the county and are in limited quantity so that future production of these ores would probably be limited to bi-products from the production of chrome or nickel. There are no commercial or presently economically feasible coal deposits in Curry County and the geologic formations in the county are not favorable for the production of oil and gas so the chance of any future energy production from fossil fuels within the county is essentially non-existent (DOGAMI, 1977).

5.3.5 Sand, Gravel and Rock

Sand, gravel and stone have historically been mined and are presently being mined as

construction material. The mined products include material mined as pit or quarry run which then may or may not be processed by crushing, screening, washing and drying. Over 200 rock material sites have been located within Curry County including sand and gravel pits and stone quarries (see Mineral Resources Inventory Map). The location of these sites was established from the Oregon Department of Geology and Mineral Industries data and updated with information from the 1991 Mineral Information Layer for Oregon by County (MILOC) database (Gray, 1991).

Generally sand and gravel deposits are located along the rivers and streams of the county where the material is scraped up (scalped) into a pile from the river gravel bar. This process is utilized so that the gravel removed will not affect the river channel itself or the riparian environment. Most sand and gravel removal operations are located in the rural areas of the county so that they are not impacted by conflicting uses; however, removal operations in the lower Rogue and Chetco Rivers are impacted by residential uses, recreational uses and existing public facilities.

Over 170 stone quarries have been developed in Curry County utilizing materials from various types of bedrock (see Mineral Resources Inventory Map). A listing of these quarry sites is provided in the Department of Geology and Mineral Industry report (DOGAMI, 1977). This inventory was updated with information from the 1991 Mineral Information Layer for Oregon by County (MILOC) database (Gray, 1991). Most of the stone removed from these quarries is used for fill, road construction, or revetment, depending upon the quality of the material. In some cases rock is crushed and screened at the quarry site to provide aggregate for concrete or asphalt. Most of the quarry sites in the county are located in areas where they are not impacted by conflicting uses;however; quarries located along U.S. Highway 101 and the main county roads near population centers are impacted by residential uses.

TABLE 5.3A

SAND, GRAVEL, STONE PRODUCTION-CURRY COUNTY (Source DOGAMI,1977)

Year	Material	Thousand short tons	Thousand dollars
1977	Sand and gravel	74	$121
	Stone	--	125
1976	Sand and gravel	59	94
	Stone	3	5
1975	Sand and gravel	143	237
	Stone	7	15
1974	Sand and gravel	102	57
	Stone	79	75
1973	Sand and gravel	121	160

	Stone	632	800
1972	Sand and gravel	235	339
	Stone		
1971	Sand and gravel	82	141
	Stone		

Table 5.3A shows the production of sand, gravel and stone from the county during the period 1971-1977 and the value of that product. Figure 5.3.B is a plot of sand, gravel, and stone production from the county and a projection of future production to the year 1995. Future production of these materials is related to a number of factors including population growth, construction starts, availability of funds for public works projects, and general economic climate.

Generally the size of the population has the major effect on the need for sand, gravel and stone. However, in Curry County the large fluctuations shown in the production of these materials in the past has not been related just to population growth but rather to the needs generated by special projects such as the construction of highways, jetties, etc. Assuming that future needs will be related to population growth Curry County has enough sand and gravel to last for the next 20 years based on the present rate of consumption and enough quarry stone to last for the next 30 years. Sand, gravel and quarry stone remain as the only mineral resource still in production in Curry County so these sites have been reviewed and evaluated in the Natural Resources Document as required by Goal 5.

REFERENCES:

DOGAMI, 1977; "Geology, Mineral Resources, and Rock Material of Curry County, Oregon" by Len Ramp, Herbert G. Schlicker and Jerry L. Gray, Bulletin 93, 79 p.

Gray, J. L., 1991; "Mineral Information Layer for Oregon by County (MILOC), DOGAMI Open-File Report O-91-4, electronic file database.

Horner, R. R., 1918; "Notes on the Black Sand Deposits of Southern Oregon and Northern California, U.S. Bureau of Mines Tech. Paper 196, 42 p.

THE ATTACHED MINERAL RESOURCES COMPREHENSIVE PLAN INVENTORY MAP (TWO SHEETS) IS INCLUDED AS PART OF THIS EXHIBIT.

EXHIBIT C

Chapter 5 - NATURAL RESOURCES

5.7 SCENIC VIEWS

Curry County is fortunate to have almost 80 miles of outstanding scenic views and sites along its coastline as well as numerous scenic areas in the interior areas of the county. The scenic qualities of the county are noted nationwide and provide one of the attractive features that helps to promote tourism to the area. Many people visit the area to experience the scenic qualities of the rugged coastline that extends the full length of the county. In addition, the Rogue and Illinois River canyons are also among the most scenic waterways in the country.

Curry County has inventoried the outstanding scenic areas of the county by mapping the wild and scenic sections of the Elk, Rogue, Illinois, Chetco and Smith Rivers as defined by the state and federal laws (see Recreation Resources Inventory Map). The county has also mapped the scenic coastline areas and prominent coastal headlands as part of the coastal shorelands inventory (see Coastal Shorelands Inventory Map).

The scenic view areas of the county are protected by being either under public ownership, or if privately owned, under some form of scenic management program. Most of the land west of U.S. 101 is owned by the state and is preserved in its natural character. The state has developed some of these lands into parks which have recreational facilities at the more scenic points such as Harris Beach, Cape Sebastian, and Humbug Mountain. Other state park areas remain undeveloped in their natural state to preserve the natural beauty of these sites such as Floras Lake and Boardman State Parks.

The wild and scenic portions of rivers in the county are located within the federally controlled lands of the National Forest and are protected under the requirements of the Wild and Scenic Rivers Act and the Oregon Scenic Waterways Act. Private lands located along these rivers may be subject to the requirements of these laws so that development does not detract from their scenic qualities. Due to the public ownership of most areas and the restrictive federal and state laws the outstanding scenic areas of the county are well protected.

5.9 WILDERNESS

Wilderness is defined as an area where the earth and natural community are essentially unaltered by man and man himself is a visitor and not a permanent resident. Basically it is an area of undeveloped land retaining its primeval character without permanent improvement or human habitation, which is protected and managed so as to preserve its natural conditions. Curry County has a significant amount of its land area in a wilderness classification through decision of the

federal government. The Wilderness Act of 1964 gave legislative status to 54 units of National Forest including 76,900 acres of the Kalmiopsis Wilderness. In 1978, Congress passed into law the Endangered American Wilderness Act adding approximately 103,000 acres to the existing Kalmiopsis Wilderness. The act also added the 27,200 acre Wild Rogue Wilderness into the National Wilderness System.
Congress designated an additional 17,200 acres of land in northern Curry County as the Grassy Knob Wilderness under the Oregon Wilderness Act of 1984.

The Kalmiopsis contains some of the most rugged and inaccessible country in the Siskiyou National Forest. It is characterized by deep, rough canyons, sharp ridges, and sparse vegetation. Serpentinite and various peridotites are prevalent in the area. It has a high potential for mineral deposits, particularly nickel and chromite and several mining roads exist within the wilderness country .

The flora within the Kalmiopsis Wilderness is noteworthy, not only for the great number of species, but also for the abundance of rare and unusual plants. Known to grow within the Kalmiopsis Wilderness are 12 species of coniferous trees, 9 species of hardwood trees, over 31 species of shrubs, and many species of herbaceous plants. Kalmiopsis leachiana, which resembles a miniature rhododendron, is abundant in portions of this wilderness. It is believed to be a relic of the tertiary age. The plant was discovered in 1930 by Mrs John Leach of Portland, Oregon.

Because of the Kalmiopsis Wilderness' harshness and its distance from large populations, it is one of the most lightly used wilderness areas in the Pacific Northwest. Recreation use grew from 400 visitor days in 1966 to 9, 200 visitor days in 1977 . This represents less than 1. 2 percent of the wilderness days recorded in 1977 within the National Forest of Oregon and Washington. The acreage within the Kalmiopsis Wilderness, by contrast, represents 4.0 percent of the wilderness acreage for the same region.[1]

The Grassy Knob Wilderness is a heavily timbered area that lies in the headwaters of the Sixes and Elk Rivers. This area was included in the wilderness system in order to protect salmon and steelhead spawning beds in the mid-watershed area of these rivers.

Curry County has inventoried all wilderness areas within the county by mapping its boundaries on the inventory base map (see Cultural Resources Inventory Map). The map shows those areas as they have gradually been expanded from the original botanical area created in 1946 to the present boundaries created in 1984.

5.12 PLAN POLICIES REGARDING NATURAL RESOURCES (Subsections C & E)

Curry County Adopts the following comprehensive plan policies with regard to natural resources:

C. With regard to Energy Recovery:

1. Curry County has several sites which are suitable for the recovery of renewable energy from the wind on a commercial scale and these sites should be retained for this use.

2. Potential conflicts between energy recovery sites and other uses have been addressed and resolved so that these sites are utilized to optimal benefit of the resource through the implementation provisions of the comprehensive plan.

E. With regard to Scenic Resources:

1. Curry County recognizes the value of its scenic landscapes and seeks to retain their beauty for the enjoyment of residents and visitors.

2. Most of the scenic river courses and coastline areas are under public ownership and control so that they are beyond the control of the county; where such resources are located on private lands Curry County has identified any conflicts and resolved such conflicts with the implementation provisions of the comprehensive plan.

3. Curry County recognizes that the Elk, Rogue, Illinois, Chetco and Smith Rivers are designated Federal and/or State scenic waterways.

THE ATTACHED RECREATIONAL RESOURCES AND CULTURAL RESOURCES COMPREHENSIVE PLAN INVENTORY MAPS (TWO SHEETS EACH) ARE INCLUDED AS PART OF THIS EXHIBIT.

EXHIBIT D

Chapter 12 - TRANSPORTATION

12.4 AIR TRANSPORTATION

Curry County has provisions for air transportation through three airports in the county. Table 12.4A describes the existing facilities at each airport. Seven additional private landing strips are known in the county. These include grass or dirt strips at Agness, Big Bend, Half Moon and Paradise Bar. None of these airstrips include support facilities or developed improvements. Mercy Flights (Medford based non-profit organization) provides air ambulance service on a 24 hour basis to residents who are members of Mercy Flights.

12.4.1 Brookings Airport

This facility is owned by Curry County. The airport is 92 acres and located at 458 feet above mean sea level. Runway edge lights and end lights are provided on a 2950 foot long asphalt runway. Five hangar facilities hold nineteen aircraft with eleven tiedowns available adjacent to the runway. The airport utilizes Visual Flight Rule (VFR) approach and departure procedures. Other facilities include segmented circle and wind indicator, 10-inch rotation beacon, and a Unicom (frequency 1228). Only visual flight rule approach and departure procedures apply.

A master plan was completed in 1980 for this facility in a cooperative effort of Curry County and the state of Oregon Aeronautics Division (OAD). The document entitled, "Brookings State Airport Master Plan 1980 - 2000", was prepared by Wadell Engineering Corporation and does an effective job of inventory, projections and planning for the facility (Wadell Eng., 1980). A master plan update for the Brookings State Airport was prepared by Reid Middleton in 1990 (Reid Middleton, 1990).

The plan forecasts a steady increase in numbers of based aircraft and hours of aircraft operations through the year 2000. The plan identifies basic improvements to the airport facility including lighting, navigation aids and support equipment. The master plan update reviewed the activity at the airport and proposed several alternatives for improving the facility including runway realignment or possibly relocating the airport to a new site. The master plan update concluded a 300 foot extension of the existing runway was the preferred alternative for improving the facility. This runway improvement project which included extending the length and widening the runway surface was recently completed by the state and county.

Of primary concern to the county in the comprehensive plan is the land use aspect in protecting the airport from conflicting uses and reserving sufficient land, where possible, to expand the airport parking, maintenance, hangar and aviation dependent commercial activities. Also of primary importance, is protecting the airport's existing runway and any appropriate land necessary to extend it to upgrade the classification of the airport and, therefore, expand the range

of aircraft which can use the facility.

12.4.2 Gold Beach Airport

The Gold Beach Airport is owned and operated by the Port of Gold Beach and located on land immediately south of the mouth of the Rogue River. The Gold Beach Airport is the busiest airport in Curry County with more landings than the Brookings Airport. Gold Beach Airport is defined as a Basic Utility Airport which means it can accommodate about 95% of the general aviation propeller aircraft under 12,500 pounds. Specific planning issues regarding this airport are discussed in the City of Gold Beach Comprehensive Plan.

Curry County has land use administration over only portions of the airport impact area. The land use administration is handled through the urban growth area management agreement with the City of Gold Beach for those areas outside the city limits.

The Gold Beach Comprehensive Plan clearly recognizes the importance of the Gold Beach Airport and the need to protect it from encroachment by incompatible land uses. (See figure VI-3). Of particular importance is the fact that prevailing northwest winds in the summer often keep this airport fog free and open while other coastal airports are closed due to fog which is an important safety consideration for aircraft pilots in southwest coastal Oregon.

The plan includes as one of its transportation goals the need "to encourage the expansion of air freight, air charter, and air services to the city." Another of the plan' s transportation goals is "to consider for adoption as part of the city's comprehensive plan, an airport master plan."

To emphasize the importance of the airport to the community, the plan, in reference to the activities of the Port of Gold Beach, states that, "the city should encourage efforts to improve the airport and encourage only compatible uses adjacent to the airport. As the city continues to grow, a need for commercial air service could develop. At that time the adequacy of the airport facilities will partly determine if commercial air services can be brought to the area."

The goals and policies are tied to the actual situation of the land through the land use map of the comprehensive plan. The land use map, although subject to change as conditions may warrant, designates which uses should be permitted throughout the city. The airport is included within the "Public and Semi-Public" land use classification. The area around the airport is contained within the "Airport Activity" classification, which allows only uses compatible with the airport. To permit the city" a degree of flexibility in dealing with its future", the Airport Activity "designation will allow the city to look at specific proposals with respect to compatibility with the airport and also the surrounding areas."

The area south of the Rogue River that is affected by the airport lies within the City of

Gold Beach and is subject to the City of Gold Beach Zoning Ordinance. The area north of the Rogue River is under the jurisdiction of Curry County.

To provide the maximum degree of safety in the run way approach areas, it is necessary to insure that all obstructions, sources of glare and radio interference, and uses which attract birds be prohibited in the approach areas. The county has adopted an "Airport Related Areas Overlay Zone (AR)" which is applied to areas adjacent to the three airports that are included within the approach and clear zones needed for the operational safety of aircraft. The AR Overlay Zone has limitations on certain types of development and notification requirements to the airport owner and aeronautical agencies of any development within the area of the overlay zone.

12.4.3 Cape Blanco Airport

The Cape Blanco Airport was originally constructed by the military for coastal air defense. For this reason the 5100 foot runway and taxi strips are capable of handling aircraft of greater size than any other field on the south coast. The runway is in fact, 55 feet longer, than North Bend Municipal Airport's longest runway. The airport is located approximately six miles north of Port Orford, adjacent to Floras Lake State Park. The area is rural with ranching being the primary activity. After the military discontinued use of this field, the State of Oregon acquired it and now operates it as a Land Access field for recreational flyers. Due to the caliber of the field construction, however, it is capable of reclassification to a Basic Utility or Basic Transport Airport. The airport features automatic runway lighting, a beacon, and wind indicator. The airport is the least used of the three Curry County airports with an average of only one take off or landing per day. The low useage results from its relative isolation from any population center and adverse weather conditions including winds during much of the year. The airport is now used as a pick-up facility for air taxi operators and air ambulance services as well as recreation flyers. However, the field has the capacity to service large propeller and executive jet traffic as well.

Cape Blanco airport has the potential for expansion and even the possibility of becoming a regional airport. This is because the land around the airport is undeveloped and in an ideal situation where little or no conflicting uses exist. The airport has the advantage of having a good runway and vacant land with room for expansion in almost any direction. The principal disadvantage is the isolation of the site from population centers requiring transportation of travelers to Coos County or Gold Beach/Brookings. Other problems could result from the competition of commercial and industrial uses for land which has agricultural capability or is in park use.

12.4.4 Airport Noise

The major potential conflict between continued airport use and off-airport development centers on noise impact. Human reaction to the intrusion of aviation noise is complex and subjective. Several indices have been developed in an attempt to rate the annoyance associated with living and working with aviation noise. In general, these indicators attempt to measure

quantitatively the acoustic energy of the sound and relate this to the subjective feelings of loudness, noisiness or annoyance. Measures of the noise environment alone cannot provide an accurate prediction of the degree of annoyance that may be associated with a given level of noise intrusion.

The guidelines established by the Oregon Aeronautics Division for areas of "moderate noise impact" (55 - 65 Dbl) state that most uses in such areas are compatible or conditionally compatible. They do, however, recommend that noise sensitive uses such as schools, hospitals, nursing homes, theaters, auditoriums and residential development should have noise insulation installed. However, outside of urban areas, lower background noise levels may result, and airport noise within the 55 Dbl noise contour may be perceived as a problem.

The Brookings and Cape Blanco Airports are located in areas where there are only low density residential uses so that noise is not a significant problem. However, the Gold Beach Airport is located in the center of town so that there is a greater possibility for conflict between airport noise and surrounding uses. These conflicts will have to be resolved as part of the City of Gold Beach Comprehensive Plan.

TABLE 12.4A

CURRY COUNTY PUBLIC AIR FACILITIES

	Gold Beach	Brookings	Cape Blanco
Owner	Port of Gold Bch.	County	State
Acreage	48	92	65
Runways	1	1	1
Surface	Asphalt	Asphalt	Asphalt
Lights	Low Intensity	Med. Intensity	Low Intensity
Dimensions(ft)	75 X 3200	60 X 2950	150 X 5100
Strength(lbs)	21,000	8,000	100,000
FBO Services	Fuel	Fuel	NA
Nav. Aids	Wind Indicat.	Wind Indicat.	Wind Indicat.
	Runway Lts.	Runway Lts.	Runway Lts.
	Beacon	Beacon	Beacon
	NDB	NA	NA
	VASI	NA	NA
Aircraft Based	25	30	6
Est. Traffic	33,400	21,900	3,000
Meteor. Cond.	Wind Info.	Not Regularly	Not Regularly
Ave. Precip.	80.3 in/yr	79.0 in/yr	65.7 in/yr
Ave. Temp.	53.6 F	53.1 F	49.8 F
Ave. July Temp	66.7 F	65.7 F	57.7 F
Ave. Jan Temp	40.6 F	40.6 F	41.9 F

Source: Oregon Aviation System Plan, Oregon Aeronautics Division (1981)

EXHIBIT E

Chapter 17 - GOALS AND POLICIES

17.1 INTRODUCTION

This chapter of the comprehensive plan contains the goals and policies regarding land use in the county as set forth by the County Board of Commissioners in the development of the plan. These are not intended to be fixed, or unchangeable statements, but rather, they are intended to be reviewed periodically to insure that they reflect the desires of Curry County and the Statewide Goals and Guidelines.

The goals and policies are not rigid requirements for future public and private land use, but instead serve as general statements to guide the implementation of the comprehensive plan. Curry County has developed policies regarding every aspect of the comprehensive plan which are intended to provide the general guidance for specific decisions on land use in the future implementation of the plan.

Goal 1 - Citizen Involvement

GOAL: To provide for citizen involvement in all phases of the planning process by developing and maintaining a program of citizen involvement.

Policies

1. Curry County has developed a citizen involvement program with the formation of a Citizen Committee for Involvement (CCI) which carried an active part in the development of the comprehensive plan and will continue to remain active in the periodic review process of the comprehensive plan.

2. Curry County makes planning materials available at all community libraries for public review.

3. Curry County makes steps of plan development a public process in work shop sessions that are publicized throughout the county.

4. Curry County advocates and encourages citizen involvement in comprehensive plan development and revision by holding public input meetings in various local communities of the county where feasible.

5. Curry County provides assistance to interpret and effectively use technical planning

information from its planning staff.

6. Curry County provides for development, implementation and revision of its comprehensive plan with financial support.

7. Curry County shall continue to promote adequate citizen involvement by having the Planning Commission review the Citizen Involvement Program on a regular basis and evaluate its operation and make changes when necessary.

Goal 2 - Land Use Planning

GOAL: To establish a land use plan and policy framework as a basis for all decisions and actions related to use of the land and assure an adequate factual base for such decisions, also to coordinate the county land use plan with all affected jurisdiction and agencies.

Policies

1. Curry County has adopted a land use plan for the county which is the basis for making decisions related to use of the land in the county.

2. Curry County has implementing ordinances to carry out the intent of the plan which are administered either by the Board of Commissioners or Planning Commission in a public hearing or administratively by the Planning Director after public notice.

3. Curry County shall make all land use decisions on a factual basis with findings of fact and conclusions of law supporting each decision.

4. Curry County shall review its comprehensive plan and implementing ordinances as required for Periodic Review under relevant Oregon statutes and administrative rules and will revise the plan and ordinances as needed to comply with state law.

5. Curry County shall coordinate with all affected jurisdictions and agencies in matters of land use by notifying them of pending land use actions and permitting input into the decision as specified by signed management agreements or implementing ordinance requirements.

Goal 3 - Agricultural Lands

GOAL: To preserve and maintain agricultural lands by retaining the economically viable agricultural uses within the county.

Policies

1. Curry County seeks retention of agricultural land for agricultural use and reduction of uncertainty regarding the status of county agricultural lands by adopting a comprehensive plan which provides zoning of agricultural lands that is appropriate for the continuation of existing commercial agricultural enterprise consistent with Oregon Revised Statutes Chapter 215 (Agricultural Land Use Section).

2. Curry County seeks expansion of the food processing industry within the county by providing commercially and industrially designated lands for the siting of such facilities.

3. Curry County seeks expansion of the storage of water for irrigation by the use of impoundment structures on agricultural land.

4. Curry County seeks control and/or eradication of predators and poisonous weeds from agricultural lands to promote agricultural production with livestock.

5. Curry County promotes the opening of foreign and domestic markets for county agricultural products.

6. Curry County seeks improvement of agricultural services and facilities in the county which will assist local production.

7. Curry County seeks new lines of production which utilize agricultural crops produced in the county.

8. Curry County seeks greater use of processed municipal and industrial wastes for agricultural fertilizer.

9. Curry County seeks local availability of low priced fertilizer, fuel, and other agricultural supplies.

10. Curry County will not approve an exception to Goal 3 for a comprehensive plan change from an agricultural designation to any nonresource plan designation if the subject property is in a special property tax assessment for farm use.

Goal 4 - Forest Lands

GOAL: To conserve forest lands for forest use.

Policies

1. Curry County will apply forest resource zoning to all identified forest lands which are

not committed to nonresource use in order to maintain such lands in forest uses as required by Statewide Planning Goal 4.

2. Curry County encourages the maintenance of maximum productivity of commercial forest lands through the implementation of its forest resource land zoning.

3. Curry County recognizes those non-conforming uses in existence on forest resource lands and will allow them to continue under the non-conforming provisions of the zoning ordinance.

4. Curry County encourages in-filling of vacant residentially zoned parcels with development along forest resource-rural residential land boundaries over rezoning of forest resource lands.

5. Curry County will require that new rural residential and other non-forest uses proposed adjacent to forest lands provide adequate setbacks from the forest land for protection from forest fires and commercial forestry activities. The owner of vacant residential land who divides land adjacent to forest resource land shall record a disclosure statement with the county to alert future owners of the new parcel(s) of possible future commercial timber harvest and forestry activities and to provide adequate measures for protection from forest fire.

6. Curry County recognizes the necessity for and supports the implementation of the Oregon Forest Practices Act.

7. Curry County supports reforestation and brushfield conversion and seeks to increase utilization of existing incentive programs and encourages the development of new incentives for this purpose.

8. Curry County will not approve an exception to Goal 4 for a comprehensive plan change from a forest designation to any nonresource plan designation if the subject property is in a special property tax assessment for forest use.

Goal 5 - Natural Resources

GOAL: To conserve open space and protect natural and scenic resources

Policies:

A. With regard to Open Space Lands:

1. Curry County recognizes the value of open space as an asset to the county for scenic qualities, recreational opportunities, wildlife habitat and biological diversity.

2. Curry County has identified county, state and federal (USFS/BLM) public lands as open space in its comprehensive plan and determined that these lands are adequate to meet the needs of its citizens and visitors for open space.

B. With regard to Mineral and Aggregate Resources:

1. Curry County recognizes the value of the mineral resources present in the county and seeks their development wherever possible to the benefit of the people and other resources of the county with protection for fish and wildlife habitat.

2. Sand, gravel and quarry rock deposits identified in the comprehensive plan are currently the most productive mineral resources in Curry County and the continued utilization of these mineral resources is important to the local economy.

C. With regard to Energy Recovery:

1. Curry County has several sites which are suitable for the recovery of renewable energy from the wind on a commercial scale and these sites have been identified in the comprehensive plan as a potential natural resource if wind energy recovery is developed as a viable technology for this area.

D. With regard to Fish, Wildlife and Biologically Significant Resources:

1. Curry County has diverse fish, wildlife and biological resources which provide a balanced natural community as well as outdoor recreational opportunities as identified in the plan.

2. The preservation of fish and biologically significant wildlife resources in the county is dependent upon retention of natural habitat. The most significant of these habitat areas in Curry County are located on public lands and are protected under state and federal wildlife management plans.

3. Curry County supports the retention of wildlife habitat on private land through active habitat preservation or restoration as carried out or allowed by the landowner.

4. Curry County supports the retention of riparian vegetation along streams to protect anadromous fish populations by requiring setbacks from the stream bank for all development.

5. Curry County recognizes the economic and ecological values of special plants used commercially such as conifers (boughs), ferns, huckleberry, salal, mushrooms and other items collected from public and private lands for resale.

E. With regard to Scenic Resources:

1. Curry County recognizes the value of its scenic landscapes and seeks to retain their beauty for the enjoyment of residents and visitors.

2. Curry County has identified all state and federal wild and scenic rivers in its comprehensive plan and cooperates with the state and federal government in the protection of the scenic values of these river corridors.

3. Curry County has identified segments of its coastline which are located within state parks as being a scenic resource and will cooperate with the Oregon Parks and Recreation Department in protecting these scenic areas. Curry County shall seek to have input into the decisions made by the State and Federal government regarding these areas as part of the coordination requirements under this plan.

F. With regard to Water Resources:

1. Curry County has identified a wide variety of water resources including rivers, streams, lakes and groundwater aquifers in its comprehensive plan and seeks to have these resources protected and utilized to the benefit of the county.

2. Curry County encourages the construction of water impoundments to retain winter rainfall for use during the summer dry season and has identified suitable reservoir sites in its comprehensive plan.

3. Curry County will encourage residential development only in areas which are known to have adequate supplies of water for domestic use and will discourage residential development in areas that are known to have questionable availability of surface and groundwater.

4. Curry County will allow the creation of new residential parcels only when the person proposing a land division has demonstrated that the proposed land division complies with the provisions of ORS 92.090(4) for water supply to each new parcel.

G. With respect to Cultural Resources:

1. Curry County has an interesting and varied history and seeks to preserve its cultural heritage wherever possible.

2. The county has identified significant historical and archaeological sites in the comprehensive plan and will preserve these sites for the benefit of future generations under the archeological and historical sites provisions of the zoning ordinance.

Goal 6 - Air, Water and Land Resource Quality

GOAL: To maintain and improve the quality of the air, water and land resources of Curry County.

Policies

1. Curry County recognizes all applicable federal and state regulations concerning air, land and water quality and will cooperate with other governmental agencies in their implementation of these regulations to protect these resource qualities.

2. Curry County maintains an environmental sanitation program for the regulation of on-site sewage disposal in order to protect water quality in the county.

3. Curry County will discourage activities which cause the degradation of the air, water or land resource quality in the implementation of its comprehensive plan and zoning ordinance.

4. Curry County has developed an active solid waste recovery and recycling program which promotes the recycling and proper disposal of solid waste in order to protect the quality of the air, water and land resources of the county.

5. Curry County will continue to promote the location of those businesses which may pose a noise nuisance problem into areas that are appropriate for such uses.

Goal 7 - Natural Hazards

GOAL: To protect life and property from natural disasters and hazards identified as potentially occurring in Curry County.

Policies:

1. Curry County has identified the location of potential natural hazard areas in the comprehensive plan and seeks to protect its citizens from harm caused by natural hazards.

2. Curry County regulates the construction of structures through its administration of the Uniform Building Code and will not permit the construction of a structure in a hazardous location as set forth under provisions of the building code.

3. Curry County has designated certain coastal areas which are subject to chronic natural hazards with a plan and zoning designation for "Beaches and Dune Conservation" which recognizes the limitations of these areas for development.

4. Curry County has identified those lands which are subject to periodic flooding in the comprehensive plan and in a series of flood hazard studies of local rivers that were cooperatively prepared by the county and federal government and will update these studies when new flood data for these rivers becomes available.

5. Curry County participates in the National Flood Insurance Program for the protection of property located in the flood plains of local rivers and will limit future development in flood plain areas under its Flood Damage Prevention Ordinance.

6. Curry County recognizes that areas within the county are subject to mass movements of soil and bedrock and has included maps of these areas in the comprehensive plan. The county will allow development in these areas only after the specific building site has been approved by a geologist or engineering geologist licensed by the State of Oregon and that all special construction techniques necessary to build on the site have been designed by an engineer licensed by the State of Oregon.

7. Curry County recognizes that many streams in the county have critical streambank erosion problems resulting in the loss of valuable resource land and has recognized the need for streambank protection structures along streams where the design of such structures is compatible with flood protection hydraulics and wildlife habitat values of the stream.

8. Curry County has developed an Emergency Services program to assist its citizens in the possibility of a general disaster by natural hazard such as earthquake, storm, or tsunami.

9. Curry County has an organized mutual aid agreement between all the city and rural fire departments in the county to suppress structural fires and minimize property loss.

Goal 8 - Recreation

GOAL: To provide for the recreational needs of the citizens and visitors of the county.

Policies

1. Curry County has provided recreational opportunities for the resident and tourist population by identifying recreational areas and sites in the comprehensive plan.

2. Curry County supports improved transportation facilities to allow increased recreational use and encourages development of increased access to existing facilities and attractions.

3. Curry County encourages the private/public development of recreational facilities within the county.

4. Curry County will cooperate with federal and state agencies to improve the recreational opportunities on public waters, within scenic river areas, and on recreational trails including provision of adequate support services.

5. Curry County encourages cluster development to maximize open space within residential developments.

6. Curry County will review the status of the Coast Range Hiking Trail at each scheduled comprehensive plan Periodic Review and determine whether there is sufficient information regarding the location of the proposed trail for it to be identified in the comprehensive plan at that time.

7. Curry County will coordinate with the Oregon Parks and Recreation Department in completing economic, social, environmental and energy consequence analysis as required by Goal 5 when a specific route is identified for the proposed trails.

8. Curry County encourages the protection and enhancement of fish and wildlife on public land to enhance the recreational appeal of the county.

9. Curry County will coordinate with the appropriate State and Federal agencies to identify and establish adequate recreational boating including boat ramps and access.

10. Curry County has several undeveloped state parks and state recreation sites that, if developed with intensive uses, could adversely impact adjacent lands; therefore, the State of Oregon shall submit any developmental plans for these areas to Curry County for public review and conditional use permits as provided in the Public Facilities designation and land use zone.

Goal 9 - Economy

GOAL: To diversify and improve the economy of Curry County.

Policies:

1. Curry County recognizes that the forest products industry is an important sector of the county economic structure and identifies forest resource land and forest product industrial sites in its comprehensive plan to assure continued availability of timber and processing facilities for the industry.

2. Curry County recognizes the need for the forest products industry to achieve stability of the timber supply in the region by designating most of the land base in the county as forest resource land in the comprehensive plan.

3. Curry County recognizes that other significant sectors of its economy are resource related industries (agriculture, fishing, tourism and mining) and has designated lands in the comprehensive plan which are needed to conduct or support these industries.

4. Curry County recognizes that tourism is an important part of its economy and seeks future development of this industry by attracting more destination tourists to the area and extending recreational opportunities.

5. Curry County recognizes that local commercial enterprise and industry should be diversified and seeks to attract new business and industry to the county by designating suitable vacant lands in the county as commercial and industrial sites.

6. The Curry County Comprehensive Plan designates lands suitable for commercial and industrial use and provides zoning that is compatible for those areas.

Goal 10 - Housing

GOAL: To provide for the housing needs for the citizens of the county.

Policies:

1. Curry County encourages the development of adequate housing for all of its citizens in terms of location, quality, and affordability.

2. Curry County recognizes the need for many types of housing and has designated lands for residential use with conventional homes, multi-family dwellings, manufactured dwellings and mobile homes.

3. Curry County recognizes the need for quality home construction and has adopted and administers the Uniform Building and Plumbing Code to insure standard construction practices within the county.

4. Curry County supports public and private financial programs which help people afford adequate housing.

5. Curry County recognizes the housing needs of those people who desire to live in a planned community by providing a process by which planned communities can be created with unit ownership and common areas.

6. Curry County will revise its comprehensive plan with regard to housing should any significant change take place in the existing population or housing demand which indicates an adequate supply of housing units does not exist.

7. Curry County will encourage the experimental use of non-traditional building materials and methods with proper consideration of safety and durability.

Goal 11 - Public Facilities

GOAL: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development in the county.

Policies

1. Curry County recognizes three levels of public facilities and services existing in the county:

   a) urban services

b) rural community services
c) rural services;

and has defined these levels as part of the comprehensive plan.

2. Urban service levels of public facilities shall be limited to those areas within the urban growth boundaries of cities so that these facilities can be further developed in coordination with the adjacent cities and be planned for urban densities of development.

3. Rural community service levels of public facilities are intended to be limited to those areas within the boundaries of unincorporated rural communities identified in the comprehensive plan which have water districts, fire protection; and a recognized community center.

4. Rural service levels of public facilities are defined as all other lands which are dependent upon individual sources of water and sewage disposal and are characterized by having low density residential uses.

5. The comprehensive plan effectively separates urban service levels, rural community service levels and rural service levels with specific boundaries defined as the Urban Growth Boundaries around incorporated cities and the boundaries around the four rural communities recognized in Curry County.

6. The comprehensive plan designates uses appropriate to each of these service levels through the zoning and subdivision ordinances which determine appropriate land use and minimum lot size.

7. Curry County will coordinate with the cities of Brookings, Gold Beach and Port Orford in the development of urban levels of public facilities and services within the urban growth areas around each city.

8. Curry County will coordinate with special service districts in the development of adequate levels of public facilities and services in the four rural community areas identified in the comprehensive plan.

9. Curry County recognizes the rural areas of the county as being rural service areas and will not approve the extension of new public water or sewer lines into rural areas for the purpose of increasing the density of development.

Goal 12 - Transportation

GOAL: To provide and encourage a safe, convenient and economic transportation system for the county.

Policies

1. Curry County recognizes that the principal mode of transportation within the county is by automobile and seeks to improve the transportation system of the county by developing and maintaining its road system to make it as compatible as possible with other modes of transportation.

2. Curry County will seek further improvement of mass transit systems to the county by encouraging more frequent scheduling of commercial carriers and by continued support of those systems presently developed for mass transit within the county.

3. Curry County will seek to improve air transport to the county by recognizing the importance of the three airports located within the county and continue to support the development of these sites for future expansion of air service.

4. Curry County will continue to support the development of the ports in the county in order to expand sea modes of transportation to and from the county.

5. Curry County will continue to support programs for the transportation disadvantaged where such programs are needed and are economically feasible.

6. Curry County will encourage the provision of adequate transportation systems for pedestrians and cyclists by developing pedestrian and bicycle trails in association with streets and roads.

7. Curry County will continue to support the development of an east-west arterial highway from U.S. 101 to Interstate 5 in the county as the best means of reducing the relative isolation of the area from the rest of the state.

Goal 13 - Energy Conservation

GOAL: To conserve energy by designating land uses which lead to the maximum conservation of all forms of energy based on sound economic principals.

Policies

1. Curry County has designated land uses in its comprehensive plan with the intent of

achieving energy conservation and the county will continue to achieve this goal by making land use decisions that are consistent with energy conservation.

2. Curry County recognizes that there is potential for the generation of energy from alternate and renewable sources such as wind and small-scale hydroelectric generators. Some potential generation sites have been identified in the comprehensive plan. The county will encourage the development of such energy sources which do not conflict with other natural resources.

3. Curry County recognizes the use of wood as an alternate fuel source for heating and has encouraged the use of wood as a fuel through its building code which allows wood fuel heating and its zoning ordinance which designates lands for forest and woodlot use.

Goal 14 - Urbanization

GOAL: To provide for an orderly and efficient transition from rural to urban land use in the county.

Policies

1. Curry County defines "rural uses" as those uses which are located outside of urban growth boundaries including non-urban agriculture, forestry, open space, sparse settlement, small farms or acreage homesites with few or no public services.

2. Curry County defines "urban uses" as those which are high intensity residential, commercial or industrial uses located inside urban growth boundaries, or outside urban growth boundaries where an exception to Goal 14 has been justified.

3. Curry County recognizes the urban growth boundaries of Port Orford, Gold Beach and Brookings and the mutually adopted Management Agreements for these areas.

4. Curry County will coordinate with the cities within the county with regard to land use decisions affecting the urban growth areas.

5. The county will coordinate with the respective cities to review the established urban growth boundaries at the time of periodic review of the comprehensive plan. Such review will be based upon consideration of the following:

   a) demonstrated need to accommodate long-range urban population growth requirements;
   b) need for housing, employment opportunities, and livability;

c) orderly and economic provision for public facilities and services;
d) maximum efficiency of land uses within and on the fringe of the existing urban area;
e) environmental, energy, economic and social consequences;
f) retention of agricultural land, with class I being the highest priority for retention, and class VI the lowest;
g) compatibility of the proposed urban uses with nearby agricultural activities.

6. Curry County recognizes the rural communities of the county as an additional type of development in the county and has determined boundaries for these communities based on the existing land use in the community and the requirements for a Goal 2 exception to Goal 14.

7. Curry County recognizes rural lands in the county and seeks to retain the rural character of these lands by limiting the development of these lands through rural zoning which will retain the rural character of these areas as reflected in the existing lot size pattern.

8. Curry County has zoned the lands located within the various urban growth areas for urban use and these urban land use zones shall not be applied to lands lying outside of a defined urban growth boundary.

9. Curry County has zoned lands located within the rural communities for either urban use or rural use based on Goal 2 exceptions to Goal 14 for the areas zoned for urban uses; the urban use zones Rural Industrial (RI), Rural Commercial (RC), Rural Resort Commercial (RRC) and Rural Community Residential (RCR-l and RCR-2.5) shall not be applied to areas presently zoned for rural use unless a Goal 14 exception is approved by the county.

10. Curry County has zoned lands located within the various rural land exception areas for Rural Residential (RR-5, RR-10) use which limits rural residential development to dwellings on existing parcels and the development of new parcels at a density of 5 acre or 10 acre minimum lot sizes.

11. Curry County recognizes that rural residential development in the Floras Lake area (Rural Lands Exception Areas 1 and 2) is unique because of the existence of the Pacific City Town Plats, therefore, development in these exception areas will be limited to one dwelling unit per contiguous ownership of record (all contiguous platted lots in single ownership) and further divisions of land will be limited to a 5 acre minimum lot size.

12. Curry County will limit commercial and industrial uses on rural lands to the size of the contiguous ownership under commercial or industrial zoning at the time of adoption

of the comprehensive plan. Future rezoning of land to a rural commercial or rural industrial designation shall be at least five acres in size unless the county approves a Goal 2 exception to Goal 14 and any other applicable Goals.

Goal 16 - Estuaries

GOAL: To recognize the unique environmental, economic and social values of the county estuaries and to protect, maintain and develop the long term values, diversity and benefits of these estuaries.

Policies

A. For estuaries:

1. Curry County has applied the Oregon Estuary Classification system to estuaries located within the county and has designated each estuary appropriately under that classification system.

2. Curry County will protect the estuarine ecosystem, including:

   a) its natural biological productivity;
   b) habitat;
   c) diversity;
   d) unique features; and
   e) water quality.

3. Curry County will allow dredging, fill, or other reduction or degradation of the above mentioned natural values only:

   a) if required for navigation or other water dependent uses that require an estuarine location or if specifically allowed by the applicable management unit requirements; and
   b) if a need (i.e. a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights; and
   c) if no feasible alternative upland locations exist; and
   d) if adverse impacts are minimized.

4. Curry County will allow limited rip-rap in natural estuarine designations where consistent with the natural management unit description of the estuary and other requirements of the zoning ordinance relating to non-structural solutions and the minimization of adverse impacts and where necessary for erosion control to protect:

   a) uses existing as of October 7, 1977; and

b) unique natural resource and historical and archeological values; and
c) public facilities.

5. Curry County will identify and assess sites for restoration on a case by case basis through the state and federal permit process. Appropriate sites may include areas of:

a) heavy erosion or sedimentation
b) degraded fish and wildlife habitat
c) anadromous fish spawning or rearing areas
d) abandoned diked estuarine marsh areas; and
e) areas where water quality restricts the use of estuarine waters for fish and shellfish harvest and production, or for human recreation.

6. Curry County will allow estuarine dredge or fill actions as estuarine restoration, pursuant to Policy 5, only in areas where activities have adversely affected some aspect of the estuarine system, and where it would contribute to a greater achievement of the objective of Statewide Planning Goal 16 "Estuarine Resources".

7. Curry County will only allow dredge or fill activities in intertidal or tidal marsh areas when the effects of such activities are mitigated by the creation, restoration or enhancement of another area to ensure that the integrity of the estuarine ecosystem is maintained. The Curry County Comprehensive Plan designates specific sites for mitigation which correspond to the types and quantity of intertidal area proposed for dredging and filling.

8. Curry County will restrict the proliferation of individual single-purpose docks and piers by prohibiting single purpose docks where community facilities common to several uses and interests are available or alternatives such as mooring buoys, dryland storage and launching ramps can provide similar functions. Where single purpose docks are allowed the size and shape of a dock or pier will be limited to that required for the intended use.

9. Curry County will consider establishing minimum freshwater flow rates and standards consistent with Oregon Department of Fish and Wildlife instream water right policy so that resources and uses of the estuary will be maintained. They include:

a) navigation;
b) fish and wildlife characteristics; and
c) recreation.

10. Curry County will recognize the following authorities in managing lands rather than developing new or duplicating management technique or controls to maintain water

quality and minimize man-induced sedimentation in the county's estuaries:

a) Forest Practices Act, as defined in ORS 527.610 - 527.770 and 527.990(1) - 527.992 and the Forest Lands Goal;
b) Programs of the Soil and Water Conservation Commission, and local districts, for the Agricultural Lands Goal;
c) The nonpoint source discharge water quality program administered by the Department of Environmental Quality under Section 208 of the Federal Water Quality Act as amended in 1972; *and*
d) The Fill and Removal Program administered by the Division of State Lands under ORS Chapter 196.

11. Curry County will analyze the impact(s) of proposed actions which would potentially alter the estuarine ecosystem. Prior to a decision regarding any proposed alteration there shall be an impact assessment which will enable reviewers to gain a clear understanding of the impacts to be expected. It shall include information on:

a. The type and extent of alterations expected;
b. The type of resource(s) affected;
c. The expected extent of impacts of the proposed alteration on water quality and other physical characteristics of the estuary, living resources, recreation and aesthetic use, navigation and other existing and potential uses of the estuary; and
d. The methods which could be employed to avoid or minimize adverse impacts.

12. Curry County will consider its comprehensive plan inventory information and the following matters when reviewing proposals to change the management unit designations within estuaries:

a. Adjacent upland characteristics and existing land uses;
b. Compatibility with adjacent uses;
c. Energy costs and benefits;
d. The extent to which the limited water surface area of the estuary shall be committed to different surface uses; and

13. Curry County recognizes the economic, recreational and ecological values of anadromous fisheries and will consider and describe the potential cumulative impacts of alterations and development activities envisioned in the estuary when reviewing development proposals within estuaries.

B. For estuarine shorelands:

1. Curry County will maintain the diverse environmental, economic and social values of the county's estuary shorelands.

2. Curry County will minimize man-induced sedimentation in the estuaries.

3. Curry County will reduce the hazards to human life and adverse effects upon water quality and fish and wildlife habitat in estuarine areas by requiring a setback from estuarine shoreline for all structural development in order to protect riparian vegetation.

4. Curry County will ensure compatibility with the characteristics of adjacent coastal waters.

5. Curry County will consider the relationships between estuarine shorelands and:

   a) resource of coastal waters;
   b) associated geologic and hydrologic hazards.

   Such considerations will be included in:

   a) comprehensive plan changes and revisions,
   b) zoning ordinance actions, and
   c) permit reviews.

6. Curry County will manage floodplain areas consistent with the requirements of the Curry County Flood Damage Prevention Ordinance and/or estuary resource zoning regulations.

7. Curry County will fulfill the mitigation requirement of Oregon law by protecting identified mitigation sites from preemptory uses.

8. Curry County will require all mitigation sites that are utilized for mitigation of estuarine development to be monitored by a qualified professional approved by the county for a period of ten years at the expense of the developer to ensure that the mitigation improvements continue to function toward enhancing the estuary ecosystem.

9. Curry County will fulfill the dredge material disposal plan to protect identified shoreland areas from new uses which would prevent their ultimate use for dredged material disposal.

10. Curry County will encourage the disposal of dredged material in uplands or ocean waters, and to permit in-water disposal only where consistent with the comprehensive plan, as well as state and federal law. The disposal of dredged material in intertidal areas is prohibited unless part of an approved fill project.

11. Curry County will require that riparian vegetation that is especially important to; a) water quality; b) fish and wildlife habitat; c) recreational use; and d) aesthetic resource be maintained along estuarine shorelines.

12. Curry County will require that nonstructural solutions to problems of erosion and flooding be given the highest priority in reviewing permits for estuarine bank stabilization or flood control projects.

13. Curry County will protect major marshes (non-tidal) significant wildlife habitat, coastal headlands, and exceptional aesthetic resources.

14. Curry County will protect shorelands in urban and urbanizable areas and in rural areas built upon or irrevocably committed to nonresource use that are especially suited for:

a) water-dependent recreation uses;
b) water-dependent commercial uses;
c) water-dependent industrial uses.

Some factors which contribute to this special suitability are:

a) deep water close to shore with supporting land transport facilities suitable for ship and barge facilities;
b) potential for aquaculture:
c) protected areas subject to scour which would require little dredging for use as marinas; and
d) potential for recreational utilization of coastal water or riparian resources.

15. Curry County will protect shorelands in rural areas as appropriate for:

a) farm uses as provided in ORS Chapter 215.
b) propagation and harvesting of forest products consistent with the Oregon Forest Practices Act.
c) private and public water-dependent recreational development
d) aquaculture; and
e) water-dependent commercial and industrial uses and water-related uses only upon a finding by the governing body of the county that such uses satisfy a need which cannot be accommodated on shorelands in urban and urbanizable areas.

16. Curry County will encourage the collection of new data regarding the economic, social, and environmental characteristics of county estuaries.

17. Curry County will revise the estuary plan upon receipt of new and sufficient data regarding estuarine areas which in its estimation provide a basis for changing the present plan designations.

Goals 17 and 18 - Coastal Shorelands and Beaches and Dunes

GOAL: To conserve, protect, and where appropriate develop and where appropriate restore the resources and benefits of the county's shorelands, beaches and dunes.

1. Curry County recognizes the importance of coastal shorelands and has defined the coastal shoreland area by a boundary that is related to physical processes that affect the shoreland.

2. Curry County has defined the resources of the coastal shoreland area and finds that they are protected by either inclusion in state parks or by appropriate zoning by the county.

3. Curry County will continue to protect the resource values of coastal shorelands by implementing its zoning ordinance in the shorelands.

4. Curry County recognizes that the beach and dune areas of the county are critical environments which are an asset to the county in the form of providing scenic settings, special wildlife and plant habitat and recreational opportunities.

5. Curry County recognizes that the seacliffs and coastal headlands of the county provide some of the most scenic settings in the county and are generally protected by being in public ownership and where in private ownership the county shall protect them from development in accordance with the provisions of the comprehensive plan and zoning ordinance.

6. Curry County recognizes that seacliffs and coastal headlands in the county that are eroding as part of the natural coastal erosion process and present a hazard to development will require a site specific geological hazard analysis by a competent geologist or engineering geologist licensed in the State of Oregon to verify the safety of any development in these areas under the Natural Hazard Overlay requirements of its zoning ordinance.

7. Curry County has identified the dune fields of the county which provide a unique ecological habitat for several rare plant species and the western snowy plover.

8. Curry County has identified that recreational uses of the beaches and dunes of the county should be encouraged. Except as otherwise provided below, the County will retain existing public ownerships, rights of way, and similar public easements in coastal shorelands which provide access to or along coastal waters. If such existing ownerships, rights of way or easements are sold, exchanged or transferred they will be replaced with public access to coastal waters which is similar to that which has been relinquished by the county.

9. Curry County recognizes that vehicle use on some beaches in Curry County is legal and should be allowed wherever safe access is possible and state laws are followed.

10. Curry County has designated beach and active dune areas of the county where developmental uses are not permitted with a beach and dune conservation zone to allow other uses which are appropriate to the aesthetic, environmental and recreational values of the areas. Land use decisions in these areas shall be based on findings that shall include at least:

    a. The type of use proposed and the adverse effects it might have on the site and adjacent areas;
    b. Temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;
    c. Methods for protecting the surrounding area from any adverse effects of the development;
    d. Hazards to life, public and private property, and the natural environment which may be caused by the proposed use.

11. Curry County will not permit residential developments and commercial and industrial buildings on beaches, active foredunes, and other foredunes which are conditionally stable and that are subject to ocean undercutting or wave overtopping, and on interdune areas (deflation plains) that are subject to ocean flooding. Other development in these areas shall be permitted only if it can be demonstrated that the proposed development:

    a. Is adequately protected from any geologic hazards, wind erosion, undercutting, ocean flooding, storm waves; or is of minimal value; and
    b. Is designed to minimize adverse environmental effects.

12. Curry County will permit beach front protective structures only under provisions of ORS 390.605 to 390.770 for development existing prior to January 1, 1977. Development means houses, commercial and industrial buildings, and vacant subdivision lots which are physically improved through construction of streets and provision of utilities to the lot and includes areas where an exception to construction on active dune, conditionally stable dune or interdune areas has been approved.

Where allowed protective structures shall be required to receive a review by all affected agencies and local review by the County to determine that they a) minimize visual impact, b) do not impair beach access, c) do not create negative impact on adjacent property, and d) do not create long term or recurring costs to the public.

13. Curry County will permit the breaching of foredunes only on a temporary basis for emergency situations such as fire control, cleaning up oil spills, draining farm lands, alleviating flood hazards, and to replenish sand supply in interdune areas as long as restoration of the breach is carried out after the emergency using sound principles of conservation.

14. Curry County will regulate action in beach and dune areas, including older stabilized dunes, to minimize resulting erosion. Such regulated actions include, but are not limited to, the destruction of desirable vegetation (including inadvertent destruction by moisture loss or root damage), the exposure of stable and conditionally stable areas to erosion, and construction of shore structures which modify current or wave patterns leading to beach erosion.

15. Curry County will take measures to protect groundwater from drawdown which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of salt water into water supplies. Building permits for single family dwellings are exempt from this requirement if the dwelling is located in a subdivision for which findings were made at the time the subdivision was approved which demonstrated that there will be no groundwater drawdown or no negative effects of groundwater drawdown.

EXHIBIT F

Chapter 15 - COASTAL SHORELANDS, BEACHES AND DUNE AREAS

15.3 COASTAL SHORELANDS BOUNDARY

The location of the coastal shorelands boundary is shown on the Coastal Shorelands inventory map (see Comprehensive Plan Inventory Atlas). Lands to the west of this line are considered to be coastal shorelands and lands to the east of the boundary are not shorelands. Those areas considered to be coastal shorelands have land use limitations defined by Goal 17.

The coastal shoreland boundary defined by the Curry County Comprehensive Plan generally parallels the Oregon Coast Highway in the southern two-thirds of the county except in the larger estuaries where the boundary extends upstream to the head of tide. Where the coastal shorelands boundary is defined as the top of the seacliff, however, it will be modified on a case by case basis to be a specific line as defined by analysis of the cliff erosion geological hazard as required under the "Development in Areas of Geologic Hazards" (Section 3.252) of the Zoning Ordinance.

A specific description of the coastal shorelands boundary in Curry County is provided below and is shown on the "Coastal Shorelands" inventory map.

Segment 1 - Coos County line to Floras Lake Outlet:

This segment includes the Floras Creek-New River minor estuary and associated wetlands as well as the coastal dune field lying between New River and the ocean. The shoreland boundary in this segment follows the inland extent of flooding and is delineated by the 100 year floodplain.

Segment 2 - Floras Lake Outlet to Sixes River:

This segment includes Floras Lake, a coastal lake, and the cliffed shoreline which extends south from the lake to the mouth of Sixes River. Most of the land included in this segment is included within the Floras Lake State Park and is basically an undeveloped natural area. The shorelands boundary in this area is defined as extending a uniform distance of 100 feet horizontally inland from the ordinary high water mark of Floras Lake for the coastal lake part of the segment. For the remainder of this segment which has a seacliffed boundary shoreline, the boundary is defined as following the top of the cliff. The sand spit which separates Floras Lake from the ocean is included within the shoreline boundary as well as any wetland areas which may extend inland beyond the 100 foot boundary distance.

Segment 3 - Sixes River Estuary.

The shoreland boundary in the Sixes River Estuary is defined as being the 100 year

floodplain boundary extending from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 4 - Sixes River to Elk River

This segment includes a short section of cliffed shoreline around Cape Blanco which is a prominent coastal headland in northern Curry County. Land in the vicinity of Cape Blanco is included within Cape Blanco State Park and other lands are privately owned agricultural lands which are predominantly used to pasture sheep and cattle. The shoreland boundary in this segment is defined as following the top of the cliff except from the mouth of Sixes River southerly to the south boundary of Cape Blanco State Park at the ocean shore it is defined as the easterly boundary of Cape Blanco State Park to include the Cape Blanco coastal headland.

Segment 5 - Elk River Estuary

The shoreland boundary in the Elk River Estuary is defined as being the 100 year flood plain boundary extending from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 6 - Elk River to City of Port Orford

This segment is a short segment of ocean bluff and sand beach which becomes a sand spit separating Garrison Lake from the ocean. Lands in this segment are privately owned with the exception of the Garrison Beach State Park located just north of Garrison Lake. The shoreline boundary in this segment is defined as following the top of the cliff to the northerly end of the Lake Garrison spit; the coastal shoreline boundary in this part of the segment is defined as being a line located 100 feet inland from mean high tide.

Segment 7 - City of Port Orford

The coastal shoreland boundary within the City of Port Orford is defined by the City of Port Orford Comprehensive Plan.

Segment 8 - City of Port Orford to Euchre Creek

The coastal shoreland boundary is a cliffed shore line which in places drops precipitously into the ocean. This segment includes Humbug Mountain which is a prominent headland located about four miles south of the City of Port Orford. Other large rocks are also located at the shoreline in this segment (Lookout Rock and Sisters Rocks). Land within this segment is partially public land (Humbug State Park) and private ownerships which are in agricultural use. The coastal shoreland boundary in this segment is defined as following the top of the cliff except from the north boundary of Humbug State Park at the ocean shore it is defined as the easterly boundary of Humbug State Park to the south boundary of the state park at the ocean shore to include the

Humbug Mountain coastal headland and at the sand bar located at the mouth of Myrtle Creek where it is defined at a line located 100 feet inland from mean high tide.

Segment 9 - Euchre Creek Estuary

The shoreland boundary in the Euchre Creek Estuary is defined as being the 100 year flood plain boundary extending from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 10 - Euchre Creek to Rogue River

Most of the coastal shoreland from Euchre Creek to the Rogue River is a cliffed shoreline at the edge of a coastal terrace. The extreme northerly end and southerly ends of this segment are small dune areas that lie inland from the beach. Lands in this segment of coastal shoreland are mostly in private ownership which include the Ophir and Nesika Beach Rural Community areas. The coastal shore and boundary in this segment is defined as being at U.S. 101 from the mouth of Euchre Creek to the Nesika Beach Community area boundary. The boundary is then defined as following the top of the cliff south to the City of Gold Beach Urban Growth Boundary. Within the Gold Beach UGB the shoreline boundary is defined as the inland limit of the foredune that parallels the beach or a line located 100 feet inland from mean high tide where no foredune is present.

Segment 11 - Rogue River Estuary

The shoreland boundary in the Rogue River Estuary is defined as being the 100 year flood plain boundary from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 12 - City of Gold Beach

The coastal shoreland boundary within the City of Gold Beach is defined by the City of Gold Beach Comprehensive Plan.

Segment 13 - Hunter Creek Estuary

The coastal shoreland boundary from the City of Gold Beach to the Hunter Creek Estuary and within the Hunter Creek Estuary is defined as being the 100 year flood plain boundary or the ocean flooding boundary, as appropriate upstream to the head of tide. For further information see the Esturarine Resources element of the comprehensive plan.

Segment 14 - Hunter Creek to Pistol River

This segment is mostly cliffed shoreline except in the northernmost part and from Myers

Creek to Pistol River in the southern part of the segment. Lands in this segment are partly public ownership as Cape Sebastian State Park and Buena Vista State Wayside. Other lands are privately owned and are either vacant resource lands or are committed lands in resource use. The shoreland boundary in this segment is defined as U.S. 101 from Hunter Creek to the southerly end of the Buena Vista State Wayside. South of Buena Vista Wayside it is defined as following the top of the cliff southerly to Myers Creek except from the north boundary of Cape Sebastian State Park at the ocean shore southerly to the south boundary of the state park at the ocean shore it is defined as the easterly boundary of Cape Sebastian State Park to include the Cape Sebastian coastal headland. From Myers Creek south to Pistol River, the boundary is defined as U.S. Highway 101.

Segment 15 - Pistol River Estuary

The shoreland boundary in the Pistol River Estuary is defined as being the 100 year. flood plain boundary extending upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 16 - Pistol River to the City of Brookings

This segment of shoreland is cliffed shoreline except for that area immediately south of the mouth of Pistol River which is a coastal dune field. This area includes the Crook Point headland and Boardman State Park which comprises most of the shoreland of this segment. The shoreland boundary in this segment is defined as the easterly boundary of Pistol River State Park from the mouth of Pistol River to the south boundary of the state park at the ocean shore to include the Crook Point coastal headland and the top of the cliff along the seacliff shoreline from the south boundary of Pistol River State Park at the shoreline to Boardman State Park. The coastal shoreland boundary is defined as U.S.101 within Boardman State Park due to the exceptional scenic quality of the shoreline west of U.S. 101 in this area. The shoreline boundary from the southern boundary of Boardman State Park to the City of Brookings is defined as following the top of the cliff.

Segment 17 - City of Brookings

The coastal shoreland boundary within the City of Brookings is defined by the City of Brookings Comprehensive Plan.

Segment 18 - Chetco River Estuary

The shoreland boundary in the Chetco River Estuary is defined as being the 100 year floodplain boundary extending upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 19 - Chetco River to Winchuck River

This segment of shoreland is cliffed shoreline which is almost entirely in private ownerships which are developed with residential uses. The shoreline boundary is defined as following the top of the cliff.

Segment 20 - Winchuck River Estuary

The shoreland boundary in the Winchuck River Estuary is defined as being the 100 year floodplain boundary extending up stream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 21 - Winchuck River to the California State Line

This short segment of shoreland is in private ownership and is a lowland area west of U.S. Highway 101. The shoreland boundary is defined as the ocean flooding boundary.

The boundary, as defined above, effectively separates the coastal shorelands of the county from other lands as required under Goal 17. Those lands lying to the west of the boundary are the lands which are affected by the hydraulic action of the ocean or rivers and streams entering the ocean. The boundary also includes all lands that are subject to ocean flooding or erosion by the ocean which could be a natural hazard. All areas of coastal wetlands, coastal riparian vegetation, and significant coastal wildlife habitat have been included within the coastal shorelands area. Therefore the coastal shorelands areas includes all those lands which must be considered under Goal 17 and are subject to the requirements of the goal.

15.10 PLAN POLICIES RELATED TO COASTAL SHORELANDS - BEACHES AND DUNES

Curry County has identified the coastal shorelands and beaches and dunes of the county and recognizes that these areas have special significance as part of the comprehensive plan. The following plan policies have been developed with regard to coastal shorelands - beaches and dunes.

1. Curry County recognizes the importance of coastal shorelands and has defined the coastal shoreland area by a boundary that is related to physical processes that affect the shoreland.

2. Curry County has defined the resources of the coastal shoreland area and finds that they are protected by either inclusion in state parks or by appropriate zoning by the county.

3. Curry County will continue to protect the resource values of coastal shorelands by implementing its zoning ordinance in the shorelands.

4. Curry County recognizes that the beach and dune areas of the county are critical environments which are an asset to the county because they provide scenic settings, special wildlife and plant habitat and recreational opportunities.

5. Curry County recognizes that the seacliffs and coastal headlands of the county provide some of the most scenic settings in the county and are generally protected by being in public ownership and where in private ownership the county shall protect them from development in accordance with the provisions of the comprehensive plan and zoning ordinance.

6. Curry County recognizes that seacliffs and coastal headlands in the county are eroding as part of the natural coastal erosion process and present a hazard to development. In such instances Curry County will require a site specific geological hazard analysis by a competent geologist or engineering geologist licensed in the State of Oregon to verify the safety of any development in these areas under the Natural Hazard Overlay requirements of its zoning ordinance.

7. Curry County has identified the dune fields of the county which provide a unique ecological habitat for several rare plant species and the western snowy plover.

8. Curry County has identified that recreational uses of the beaches and dunes of the county should be encouraged and except as otherwise provided below will retain existing public ownerships, rights of way, and similar public easements in coastal shorelands which provide access to or along coastal waters. If such existing ownerships, rights of way or easements are sold, exchanged or transferred they will be replaced with public access to coastal waters which is similar to that which has been relinquished by the county.

9. Curry County recognizes that vehicle use on some beaches in Curry County is legal and should be allowed where state laws are followed.

10. Curry County has designated beach and active dune areas of the county with a beach and dune conservation zone where developmental uses are not permitted and other uses are permitted which are appropriate to the aesthetic, environmental and recreational values of the areas. Land use decisions in these areas shall be based on findings that shall include at least:

    a. The type of use proposed and the adverse effects it might have on the site and adjacent areas;
    b. Temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;
    c. Methods for protecting the surrounding area from any adverse effects of the development;

d. Hazards to life, public and private property, and the natural environment which may be caused by the proposed use.

11. Curry County will not permit residential developments and commercial and industrial buildings on beaches, active foredunes, and other foredunes which are conditionally stable and that are subject to ocean undercutting or wave overtopping, and on interdune areas (deflation plains) that are subject to ocean flooding. Other development in these areas shall be permitted only if it can be demonstrated that the proposed development:

    a. Is adequately protected from any geologic hazards, wind erosion, undercutting, ocean flooding and storm waves; or is of minimal value; and
    b. Is designed to minimize adverse environmental effects.

12. Curry County will permit beach front protective structures only under provisions of ORS 390.605 to 390.770 for development existing prior to January 1, 1977. Development means houses, commercial and industrial buildings, and vacant subdivision lots which are physically improved through construction of streets and provision of utilities to the lot and includes areas where an exception to construction on active dune, conditionally stable dune or interdune areas has been approved. Where allowed protective structures shall be required to receive a review by all affected agencies and local review by the County to determine that they a) minimize visual impact, b) do not impair beach access, c) do not create negative impact on adjacent property, and d) do not create long term or recurring costs to the public.

13. Curry County will permit the breaching of foredunes only on a temporary basis for emergency situations such as fire control, cleaning up oil spills, draining farm lands, alleviating flood hazards, and to replenish sand supply in interdune areas as long as restoration of the breach is carried out after the emergency using sound principles of conservation.

14. Curry County will regulate action in beach and dune areas, including older stabilized dunes, to minimize resulting erosion. Such regulated actions include, but are not limited to, the destruction of desirable vegetation (including inadvertent destruction by moisture loss or root damage), the exposure of stable and conditionally stable areas to erosion, and construction of shore structures which modify current or wave patterns leading to beach erosion.

15. Curry County will take measures to protect groundwater from drawdown which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of salt water into water supplies. Building permits for single family dwellings are

exempt from this requirement if the dwelling is located in a subdivision for which findings were made at the time the subdivision was approved which demonstrated that there will be no groundwater drawdown or no negative effects of groundwater drawdown.

THE ATTACHED COASTAL SHORELANDS COMPREHENSIVE PLAN INVENTORY MAP (TWO SHEETS) IS INCLUDED AS PART OF THIS EXHIBIT.

EXHIBIT G

Chapter 16 - ESTUARINE RESOURCES

16.1 INTRODUCTION

This chapter of the comprehensive plan considers the estuaries of Curry County and its associated wetlands. An estuary is the marine environment created where a river enters the ocean causing a mixing of fresh and salt water under tidal action. The hydrological and chemical mixing of the two water bodies creates a unique ecological environment for plants and wildlife that creates high biological productivity. Estuaries also provide deep water marine access to the ocean which man utilizes for industry, commerce, and recreation. These uses often create conflicts with the natural values of an estuary which must be considered in the comprehensive plan.

Curry County has two estuaries of significant size and several minor estuaries. The estuaries of the Rogue and Chetco Rivers are the major estuarine environments of the county with distances to head of tide being several miles from the mouth of the river. The Sixes, Elk, Pistol, and Winchuck Rivers and Floras, Euchre and Hunter Creeks all have minor estuaries with the distance to head of tide being less than one mile from the mouth of the stream. Due to the geological structure and physiography of the region the estuaries in Curry County are far smaller in size and lack the great expanse of tidal flat and slough of the other estuaries on the Oregon coast. The steep gradients typical of the rivers in Curry County result in only limited tidal influx of ocean water up the river valleys and the creation of only limited intertidal flats. The most significant part of the larger estuaries in the county is that area near the mouth of the rivers where man has developed harbors for commercial, industrial and recreational use.

The estuary plan for Curry County consists of individual inventories for the Rogue River and Chetco River estuaries since they are the largest and most developed estuaries in the county. The plan also includes an inventory which summarizes the data related to the estuaries of the smaller streams and an estuary management plan for all county estuaries.

16.2 ESTUARINE RESOURCES GOAL REQUIREMENTS

Goal 16 is the state-wide planning goal concerned with the planning and development of estuarine areas. Planning related to uses in estuaries and on estuarine shorelines is often so complex that the estuary plan becomes a separate land use plan from the general comprehensive plan for the county. Curry County has developed a plan for the county estuaries which has its own management considerations in terms of the goal requirements. The estuary plan provides a separate inventory, boundary determination for each estuary, management designations within each estuary, zoning for each estuary, and county-wide policies for the estuaries.

Goal 16 has its primary intent "to recognize and protect the unique environmental, economic and social values of each estuary and associated wetlands and to protect, maintain,

where appropriate develop, and where appropriate restore the long- term environmental, economic, and social values, diversity and benefits of Oregon's estuaries."

The State of Oregon, through the LCDC, has classified all Oregon estuaries into four different types. (LCDC, 1979)

(1) Natural estuaries - estuaries lacking maintained jetties or channels and without adjacent urban areas which have altered shoreline.

(2) Conservation estuaries - estuaries lacking maintained jetties or channels but are without adjacent urban areas which have altered shorelines adjacent to the estuary;

(3) Shallow-draft development estuaries - estuaries with maintained jetties and a main channel which is maintained at 22 feet or less; and

(4) Deep-draft development estuaries - estuaries with maintained jetties and a main channel maintained at deeper than 22 feet.

LCDC through the implementation of the Oregon Estuary Classification System has designated the Sixes, Elk, and Pistol Rivers as natural estuaries; the Winchuck River as a conservation estuary; and the Rogue and Chetco Rivers as shallow-draft development estuaries. The estuaries of Floras, Euchre and Hunter Creeks were not included in this system.

Goal 16 requires that comprehensive plans for each estuary provide for appropriate uses with as much diversity as is consistent with the overall estuary classification as well as the biological, economic, recreational, and aesthetic benefits of the estuary. The goal requires that inventories shall be conducted to provide information necessary for designating estuary uses and policies. These inventories shall provide information on the nature, location, and extent of physical, biological, social, and economic resources in sufficient detail to establish a sound basis for estuarine management and to enable the identification of areas of preservation and areas of exceptional potential for development .

Based upon inventories, the limits imposed by the overall Oregon Estuary Classification, the needs identified in the planning process, comprehensive plans for coastal areas shall:

(1) identify each estuarine area;

(2) describe and maintain the diversity of important and unique environmental, economic and social features within the estuary;

(3) classify the estuary into management units; and

(4) establish policies and use priorities for each management unit.

Curry County has prepared inventories for all its estuaries, classified them into management units and established policies for each management unit as part of the estuary plan.

Goal 16 requires that the potential cumulative effects of uses, activities and alterations allowed be considered and described during comprehensive plan development. Activities, allowed by Goal 16, which would potentially alter the estuarine ecosystem include:

1) dredge and fill;
2) in-water structures;
3) log storage;
4) application of pesticides and heribicides;
5) water intake or withdrawal and effluent discharge;
6) flow lane disposal of dredged material;
7) and other activities which could affect the estuary's physical processes or biological resources.

The uses and activities which are allowed within estuaries are established by the management units defined in each estuary. The Estuary Resource (ER) zone sets forth the outright and conditional uses allowed in the "natural" management unit, "conservation" management unit, and "development" management unit designations of the estuaries located in Curry County. The description of the cumulative impacts expected for the estuaries was accomplished using a simple analysis procedure. First the total acreage of tidal and subtidal habitat represented within each type of management unit was summarized from available information. The description of cumulative impacts was then assessed by the amount of subtidal and tidal habitat in each management unit and the activities allowed by the ER zone in the respective management units. Consideration was also given, using the best available information, to cumulative impacts potentially generated by future development projects in the estuaries.

Activities and uses allowed within the Estuary Resources (ER) zone are briefly summarized below:

Permissable uses and activities in all estuary management units of estuaries include:

- undeveloped, low-intensity water dependent recreation;
- research and educational observation;
- navigation aids;
- protection of habitat, nutrients, fish and wildlife and aesthetic resources;
- passive restoration measures;
- dredging necessary for on-site maintenance of existing functional tidegates and associated drainage channels and bridge crossing support structures;
- riprap for protection of uses existing as of October 7, 1977, unique natural resources and archeological values and public facilities and bridge crossings.

Permissable uses and activities in natural management units of estuaries where consistent with the resource capabilities of the area and the purposes of the management unit include:

- aquaculture which does not involve dredge or fill or other estuarine alteration other than incidental dredging for harvest of benthic species or removable in-water structures such as stakes or racks;
- communication facilities;
- active restoration of fish and wildlife habitat or water quality and estuarine enhancement;
- boat ramps for public use where no dredging or fill for navigational access is needed;
- pipelines, cables and utility crossings,incidental dredging necessary for their installation;
- installation of tidegates in existing functional dikes;
- bridge crossing support structures and dredging necessary for their installation, including low water bridges; and
- temporary alterations of estuarine resource conditions for uses allowed in this zoning designation.

Permissable uses and activities allowed in conservation management units of estuaries include the following:

- aquaculture which does not involve dredge or fill or other estuarine alteration other than incidental dredging for harvest of benthic species or removable stakes or racks;
- communication facilities;
- active restoration of fish and wildlife habitat or water quality and estuarine enhancement;
- boat ramps for public use where no dredging or fill for navigational access is needed;
- pipelines, cables, and utility crossings, including incidental dredging necessary for their installation;
- installation of tidegates in existing functional dikes; and
- bridge crossing support structures and dredging necessary for their installation.

Permissable uses and activities in conservation management units of estuaries where consistent with the resource capabilities of the area and the purposes of the management unit include:

- high-intensity water-dependent recreation, including boat ramps, marinas, and new dredging for boat ramps and marinas;

- minor navigational improvements;
- mining and mineral extraction, including dredging necessary for mineral extraction;
- water-dependent uses requiring occupation of water surface area by means other than filling;
- aquiculture requiring dredge or fill or alteration of the estuary;

Permissable uses and activities in development management units of estuaries where consistent with the resource capabilities of the area and the purposes of the management unit include:

- water-related and nondependent, nonrelated uses not requiring fill;
- mining and mineral extraction including dredging necessary for mineral extraction;
- flow-lane disposal of dredged material monitored to assure that estuarine sedimentation is consistent with the resource capabilities and purposes of affected natural and conservation estuarine management units;
- dredge or fill as allowed elsewhere in this zoning designation; and
- water storage areas where needed for products used in or resulting from industry, commerce or recreation.
- active restoration for purposes other than the protection of hahitat, nutrient, fish, wildlife and aesthetic resources; and
- temporary alterations of estuarine resource conditions for uses allowed in this zoning designation.

Permissable uses and activities allowed in development management units of estuaries include the following:

- water-dependent commercial uses;
- water-dependent industrial uses;
- marinas; and
- water transport channels where dredging may be necessary.

The cumulative impacts caused by the allowed uses and activities in each estuary have been assessed for the management units defined within each estuary. The cumulative impact analysis is given below in the comprehensive plan for each estuary.

16.8 COUNTYWIDE ESTUARINE RESOURCES GOALS AND POLICIES

Curry County recognizes the unique environmental, economic and social values of the county's estuaries and associated wetlands. Therefore as part of its comprehensive plan Curry County adopts the following policies with regard to estuarine resources.

A. For estuaries:

1. Curry County has applied the Oregon Estuary Classification system to estuaries located within the county and appropriately designated each estuary included that classification system.

2. Curry County will protect the estuarine ecosystem, including:

   a) its natural biological productivity;
   b) habitat;
   c) diversity;
   d) unique features; and
   e) water quality.

3. Curry County will allow dredging, fill, or other reduction or degradation of the above mentioned natural values only:

   a) if required for navigation or other water dependent uses that require an estuarine location or if specifically allowed by the applicable management unit requirements; and
   b) if a need (i.e. a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights; and
   c) if no feasible alternative upland locations exist; and
   d) if adverse impacts are minimized.

4. Curry County will allow limited rip-rap in natural estuarine designations where consistent with the natural management unit description of the estuary and other requirements of the zoning ordinance relating to non-structural solutions and the minimization of adverse impacts and where necessary for erosion control to protect:

   a) uses existing as of October 7, 1977; and
   b) unique natural resource and historical and archeological values; and
   c) public facilities.

5. Curry County will identify and assess sites for restoration on a case by case basis through the state and federal permit process. Appropriate sites may include areas of:

   a) heavy erosion or sedimentation
   b) degraded fish and wildlife habitat
   c) anadromous fish spawning or rearing areas
   d) abandoned diked estuarine marsh areas; and

e) areas where water quality restricts the use of estuarine waters for fish and shellfish harvest and production, or for human recreation.

6. Curry County will allow estuarine dredge or fill actions as estuarine restoration, pursuant to Policy 5, only in areas where activities have adversely affected some aspect of the estuarine system, and where it would contribute to a greater achievement of the objective of Statewide Planning Goal 16 "Estuarine Resources".

7. Curry County will only allow dredge or fill activities in intertidal or tidal marsh areas when the effects of such activities are mitigated by the creation, restoration or enhancement of another area to ensure that the integrity of the estuarine ecosystem is maintained. The Curry County Comprehensive Plan designates specific sites for mitigation which correspond to the types and quantity of intertidal area proposed for dredging and filling.

8. Curry County will restrict the proliferation of individual single-purpose docks and piers by prohibiting single purpose docks where community facilities common to several uses and interests are available or alternatives such as mooring buoys, dryland storage and launching ramps can provide similar functions. Where single purpose docks are allowed the size and shape of a dock or pier will be limited to that required for the intended use.

9. Curry County will consider establishing minimum freshwater flow rates and standards consistent with Oregon Department of Fish and Wildlife instream water right policy so that resources and uses of the estuary will be maintained. They include:

   a) navigation;
   b) fish and wildlife characteristics; and
   c) recreation.

10. Curry County will recognize the following authorities in managing lands rather than developing new or duplicating management technique or controls to maintain water quality and minimize man-induced sedimentation in the county's estuaries:

    a) Forest Practices Act, as defined in ORS 527.610 - 527.770 and 527.990(1) and 527.992 and the Forest Lands Goal;
    b) Programs of the Soil and Water Conservation Commission, and local districts, for the Agricultural Lands Goal;
    c) The nonpoint source discharge water quality program administered by the Department of Environmental Quality under Section 208 of the Federal Water Quality Act as amended in 1972; *and*

d) The Fill and Removal Program administered by the Division of State Lands under ORS Chapter 196.

11. Curry County will analyze the impact(s) of proposed actions which would potentially alter the estuarine ecosystem. Prior to a decision regarding any proposed alteration there shall be an impact assessment which will enable reviewers to gain a clear understanding of the impacts to be expected. It shall include information on:

    a. The type and extent of alterations expected;
    b. The type of resource(s) affected;
    c. The expected extent of impacts of the proposed alteration on water quality and other physical characteristics of the estuary, living resources, recreation and aesthetic use, navigation and other existing and potential uses of the estuary; and
    d. The methods which could be employed to avoid or minimize adverse impacts.

12. Curry County will consider its comprehensive plan inventory information and the following matters when reviewing proposals to change the management unit designations within estuaries:

    a. Adjacent upland characteristics and existing land uses;
    b. Compatibility with adjacent uses;
    c. Energy costs and benefits;
    d. The extent to which the limited water surface area of the estuary shall be committed to different surface uses; and

13. Curry County recognizes the economic, recreational and ecological values of anadromous fisheries and will consider and describe the potential cumulative impacts of alterations and development activities envisioned in the estuary when reviewing development proposals within estuaries.

B. For estuarine shorelines:

1. Curry County will maintain the diverse environmental, economic and social values of the county's estuary shorelands.

2. Curry County will minimize man-induced sedimentation in the estuaries.

3. Curry County will reduce the hazards to human life and adverse effects upon water quality and fish and wildlife habitat in estuarine areas by requiring a setback from

estuarine shoreline for all structural development in order to protect riparian vegetation.

4. Curry County will promote compatibility with the characteristics of adjacent coastal waters.

5. Curry County will consider the relationships between estuarine shorelands and:

   a) resource of coastal waters;
   b) associated geologic and hydrologic hazards.

   Such considerations will be included in:

   a) comprehensive plan changes and revisions,
   b) zoning ordinance actions, and
   c) permit reviews.

6. Curry County will manage floodplain areas consistent with the requirements of the Curry County Flood Damage Prevention Ordinance and/or estuary resource zoning regulations.

7. Curry County will fulfill the mitigation requirement of Oregon law by protecting identified mitigation sites from preemptory uses.

8. Curry County will require all mitigation sites that are utilized for mitigation of estuarine development to be monitored by a qualified professional approved by the county for a period of ten years at the expense of the developer to ensure that the mitigation improvements continue to function toward enhancing the estuary ecosystem.

9. Curry County will fulfill the dredge material disposal plan to protect identified shoreland areas from new uses which would prevent their ultimate use for dredged material disposal.

10. Curry County will encourage the disposal of dredged material in uplands or ocean waters, and to permit in-water disposal only where consistent with the comprehensive plan, as well as state and federal law. The disposal of dredged material in intertidal areas is prohibited unless part of an approved fill project.

11. Curry County will require that riparian vegetation that is especially important to; a) water quality; b) fish and wildlife habitat; c) recreational use; and d) aesthetic resource be maintained along estuarine shorelines.

12. Curry County will require that nonstructural solutions to problems of erosion and flooding be given the highest priority in reviewing permits for estuarine bank stabilization or flood control projects.

13. Curry County will protect major marshes (non-tidal) significant wildlife habitat; coastal headlands; and exceptional aesthetic resources.

14. Curry County will protect shorelands in urban and urbanizable areas and in rural areas built upon or irrevocably committed to nonresource use that are especially suited for:

    a) water-dependent recreation uses;
    b) water-dependent commercial uses;
    c) water-dependent industrial uses.

    Some factors which contribute to this special suitability are:

    a) deep water close to shore with supporting land transport facilities suitable for ship and barge facilities;
    b) potential for aquaculture:
    c) protected areas subject to scour which would require little dredging for use as marinas; and
    d) potential for recreational utilization of coastal water or riparian resources.

15. Curry County will protect shorelands in rural areas as appropriate for:

    a) farm uses as provided in ORS Chapter 215.
    b) propagation and harvesting of forest products consistent with the Oregon Forest Practices Act.
    c) private and public water-dependent recreational development
    d) aquaculture; and
    e) water-dependent commercial and industrial uses and water-related uses only upon a finding by the governing body of the county that such uses satisfy a need which cannot be accommodated on shorelands in urban and urbanizable areas.

16. Curry County will encourage the collection of new data regarding the economic, social, and environmental characteristics of county estuaries.

17. Curry County will revise the estuary plan upon receipt of new and sufficient data regarding estuarine areas which in its estimation provide a basis for changing the present plan designations.

EXHIBIT H

Chapter 5 - NATURAL RESOURCES

5.12 PLAN POLICIES REGARDING NATURAL RESOURCES

Add the following plan policy to:

F. With Regard to Water Resources.

5. Curry County will provide written notification to the Division of State Lands, the applicant and the owner of record, within five working days of the acceptance of a complete application for a building permit, development permit, conditional use permit, variance, subdivision or planned unit development that involve lands that are wholly or partially within areas identified as wetlands on the Statewide Wetlands Inventory in accordance with ORS 215.418 and the county land use ordinance.

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CURRY COUNTY CLERK

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

In the Matter of the Adoption of Revisions to the Curry County Comprehensive Plan to Amend the City of Brookings Urban Growth Boundary (UGB)	)))))	ORDINANCE NO 95-10

Whereas ORS 197.633 requires Curry County to make certain amendments to its comprehensive plan to comply with requirements for Periodic Review; and

Whereas Curry County was notified August 14, 1992 by the Department of Land Conservation and Development (DLCD) of its requirement to complete a coordinated plan for the Brookings-Harbor area under Periodic Review of the City of Brookings Comprehensive Plan; and

Whereas Task 1 of the Periodic Review Work Program approved by the Department of Land Conservation and Development on July 21, 1993 is for the city and county to adopt an amended Urban Growth Boundary (UGB) with supportive findings and adopt a city/county UGB Management Agreement; and

Whereas after due public notice the Curry County Planning Commission has held a public hearing on these proposed comprehensive plan amendments on April 6, 1995 and recommends adoption of the amendments; and

Now, Therefore, the Curry County Board of Commissioners ordains as follows:

A. That Curry County Ordinance 83-7 and its subsequent amendments be amended by:

1) Amending the Comprehensive Plan Map to include a revised City of Brookings Urban Growth Boundary (UGB) as shown in Attachment A which is incorporated by reference; and

2) Amending Section 14.3 (Population Projections of Incorporated Cities) to add findings which address the relevant standards in Statewide Planning Goals 2 and 14 for revision of the UGB in (1) above, as shown in Attachment B which is incorporated by reference; and

3) Amending Section 14.3 (Population Projections of Incorporated Cities) to include reference to the "Technical Memorandum - Brookings Urban Growth Boundary Needs Analysis" by Linda L. Davis as the data source document for the findings in (2) above, as shown in Attachment C which is incorporated by reference; and

4) Amending Section 14.8 (Plan Policies Regarding Urbanization) Policy #8 as shown in Attachment D which is incorporated by reference; and

5) Amending Section 3.8.1 (Harbor Bench Farm District) Policies #7 and #8 as shown in Attachment E which is incorporated by reference.

B. That consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon September 12, 1995 in order to take effect simultaneously with comprehensive plan and zoning ordinance amendments adopted by the City of Brookings.

Dated this 21 st day of August, 1995.

Approved as to form

M. Gerard Herbage
Curry County Counsel

Recording Secretary

CURRY COUNTY BOARD OF COMMISSIONERS

Terry Hanscam, Chairman

T.V. Skinner, Vice Chairman

Rocky McVay, Commissioner

of RECORDS

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CURRY COUNTY CLERK

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

COPY

In the Matter of an Ordinance Amending the Air, Water, Land Resource Quality Chapter of the Curry County Comprehensive Plan to Add a Section and a Policy for Sensitive Aquifers and a Policy for Environmental Hazards	)	ORDINANCE 94-16

WHEREAS, Curry County has had a study prepared of its former Port Orford Landfill Site by Cascade Pacific Engineering, Inc. which is entitled "Endangerment Assessment of Port Orford Landfill Leacheate on Groundwater Resources - January 31, 1994" and which concludes that the county should establish environmental hazard zoning restrictions in the vicinity of the former landfill, and

WHEREAS, the Curry County Board of Commissioners on October 20, 1994 held a public hearing to consider the adoption of these amendments to the comprehensive plan, and

WHEREAS, the proposed amendments to Air, Water, Land Resource Quality Chapter of the Comprehensive Plan are designed to best meet the land use planning needs of the county with respect to the environmental hazard in the vicinity of the Port Orford Landfill site.

NOW THEREFORE, the Curry County Board of Commissioners, for Curry County Oregon, ordains as follows:

That Section 6.4.1 of the Curry County Comprehensive Plan "Existing Disposal Sites" at page 147 be amended to modify the existing text and add the following text at the description of the Port Orford Landfill Site:

> The Port Orford disposal site consists of 27 acres and is located about one mile north-northwest of the City of Port Orford. This disposal site formerly consisted of prepared trenches that were covered with compacted soil. The Port Orford disposal site was closed as a landfill in 1990. The county converted the site for use as a temporary storage site for scrap metal, tires, yard and demolition debris and white goods. The site is also used as a transfer station for the

collection of solid waste in the northern part of the county. Solid waste collected at this transfer station is transported to a disposal site outside of the county.

Following closure of the Port Orford landfill the county had the site studied for possible impact of leachate from the buried solid waste material to the local groundwater aquifer. This study has determined that groundwater in the immediate vicinity of the former landfill is or may be contaminated by leachate from the solid waste landfill materials. The study has also identified an area around the former landfill in which groundwater withdrawal must be regulated due to contamination or possible contamination from the landfill leachate (Figure 6.4.A). The county has adopted a comprehensive plan policy which limits land uses that utilize groundwater that is extracted from the land area indicated in Figure 6.4.A.

That Section 6.6 of the Curry County Comprehensive Plan "Plan Policies for Air, Land, Water Resource Quality" at page 149 be amended to add the following plan policies:

6) Curry County will notify the Oregon Department of Environmental Quality and the Oregon Water Resources Department of any proposed development within the boundary of groundwater area as indicated in Figure 6.4.A of the comprehensive plan.

7) Curry County will not approve any development permit for a use allowed under its comprehensive plan and implementing ordinances if such development proposes the extraction of groundwater from the aquifer within the groundwater area indicated in Figure 6.4.A of the comprehensive plan unless the county determines that such groundwater extractions will not create, or will not reasonably be expected to create, either a health threat or health hazard as defined below based on information submitted to the county including an evaluation report provided by the Department of Environmental Quality.

> "Health Hazard" - means a condition where there are sufficient concentrations of biological, chemical, or physical, including radiological, contaminants in the water that are likely to cause human illness, disorders, or disability. These include, but are not limited to naturally occurring substances, pathogenic viruses, bacteria, parasites, toxic chemicals, and radioactive isotopes. Sufficient concentrations of a contaminant include but are not limited to contaiminant levels set by the Department of Environmental Quality and Oregon Health Division.

"Health Threat" - means a condition where there is an impending health hazard. The threat may be posed by, but not limited to: a conduit for contamination, or a well affecting migration of a contaminant plume, or the use of contaminated water. A well in which the well construction is not verified by a water well report or geophysical techniques may be considered a conduit for contamination in certain circumstances. Those circumstances include, but are not limited to: an unused and neglected well, a well that is permanently out of service, or well for which no surface seal was required. A well in which the casing seal, sanitary seal, or watertight cap has failed, or was inadequately installed may be considered a conduit for contamination.

That consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon its passage.

Dated this 24th day of October, 1994.

Approval as to form

M. Gerard Herbage
Curry County Counsel

Recording Secretary

CURRY COUNTY BOARD OF COMMISSIONERS

Rocky McVay, Chair

Terry Hanscam, Vice Chair

Peg Reagan, Commissioner

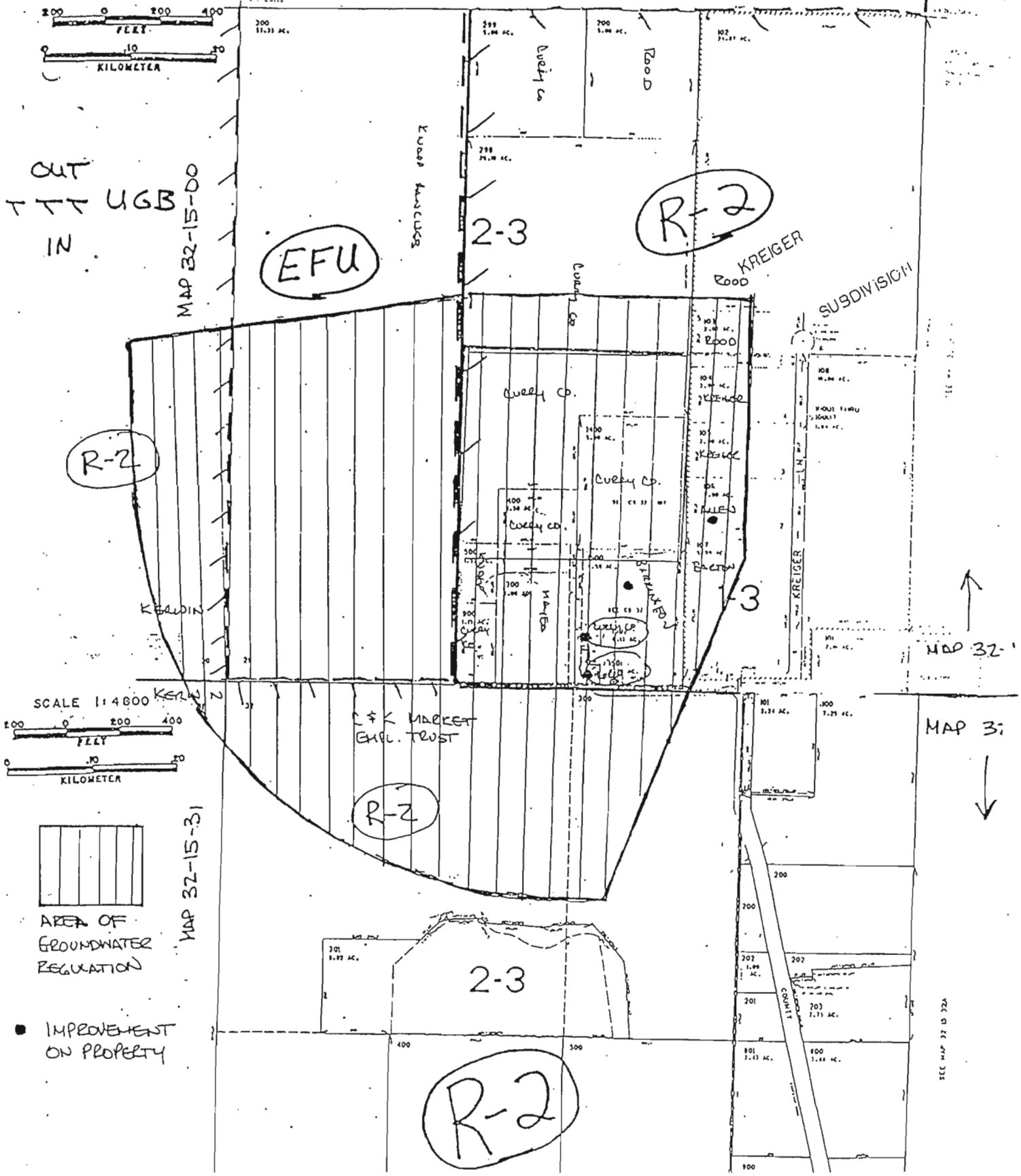

Figure 6.4.A Groundwater Area Potentially Affected by the Port Orford Landfill Site.

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CURRY COUNTY CLERK

IN THE BOARD OF COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

In the Matter of the Adoption of Revisions to the Curry County Comprehensive Plan) ORDINANCE NO 94-14

Whereas OAR 660-06-003 requires Curry County to make certain amendments to its comprehensive plan to comply with new Goal 4 language; and

Whereas Curry County needs to make additional changes with respect to Goal 3;

Whereas after due public notice Curry County has held public hearings on its proposed comprehensive plan amendments related to Goals 3 and 4; and

Now, Therefore, the Curry County Board of Commissioners ordains as follows:

A. That Curry County Ordinance 82-1 and its subsequent amendments be amended by:

1) Amending Section 3.9, 3.10 and 4.5 as marked in Exhibit A and incorporated by reference.

B. That consistent with ORS Chapters 197 and 215, this ordinance shall take effect upon its passage.

Dated this 7 th day of September, 1994.

Approved as to form

M. Gerard Herbage
Curry County Counsel

CURRY COUNTY BOARD OF COMMISSIONERS

Rocky McVay, Chair

Terry Hanscam, Vice Chair

Peg Reagan, Commissioner

Susan C. Headlee
Recording Secretary

AMENDMENTS TO THE CURRY COUNTY COMPREHENSIVE PLAN

~~Text-Deleted~~ **Text Added**

3.9 PARCELIZATION OF AGRICULTURAL LAND

Agricultural land in Curry County has an existing parcelization pattern which has developed **in direct relationship** according to the road system ~~which has developed~~ in the county. Generally land has been subdivided into smaller parcels in areas which are serviced by public roads and remains in larger tracts in the more remote parts of the county. The county has prepared a set of maps which show the parcelization of lands in the coastal areas based on parcel size as indicated by the tax assessor maps and ownership information. Actual mapping has been done in terms of ~~several categories~~ of lot size and the ~~location of residential~~ **types of** uses in rural areas.

Comparison of the Agricultural Land Map to the parcelization maps indicate that much of the land which has been parcelized into small lots (less than 20 acres) also has agricultural capability. Recognition of the **this pattern of** parcelization of these areas necessitates the development of resource zoning which ~~is applicable~~ to **will allow the continuation of existing agricultural uses in** these areas. ~~The only practical way to handle this problem is to provide agricultural zoning in these areas which has a minimum lot size that is compatible to the existing parcelization.~~

~~Lands that are parcelized in areas over 20 acres generally do not follow a set pattern that would lend itself to mapping of areas that are committed to a parcel size of 40, 80, or 100 acres. Lands that are in these larger parcel sizes are often intermixed with lots that are of smaller sizes in a random manner; therefore, it is impractical to map parcelization at a parcel size larger than 20 acres. However, it is practical to consider minimum lot sizes in terms of 40 acre parcels or multiples of 40 acres because lands are generally sold as government lots (40 acres) or multiples of such lots.~~

3.10 **MINIMUM** LOT SIZE ~~GUIDELINES~~ FOR AGRICULTURAL LAND

The comprehensive plan for Curry County recognizes the following aspects of agriculture in the county: 1) those lands which have agricultural capabilities; 2) the nature of agricultural use applied to those lands; and 3) the existing parcelization of those lands. These ~~three factors have been considered in developing a justification for making lot size determinations in future land divisions.~~

The comprehensive plan **also** recognizes two areas in the county with unique agricultural characteristics as farm districts. The

remaining agricultural land in the county is grazing and pasture land which is treated as a separate agricultural unit.

The two farm districts will be administered with agricultural zoning that has a guideline parcel size based upon the typical economic farm unit of each of the farm districts. The typical farm practice of the Harbor Bench Farm District is the row crop farming of horticultural crops. As stated in Section 3.8.1, this type of farming is very intensive and profitable so that a reasonable annual income can be obtained from a one acre parcel. Using acceptable farming practices a farmer could gross approximately $5-7,000/acre in a horticultural crop. Therefore, by having six acres on a three year rotation the farmer could consistently maintain a net income of $10-14,000/year. However, there is a range of parcel sizes within the farm districts so that further divisions of resource land will be based upon an analysis of all farm units established within the boundaries of the farm district as shown in Figure 3.8.A1, A2, and A3.

A similar analysis has been made for the Blacklock Cranberry Farm District. In this district the typical farm practice is the production of cranberries in bogs. The typical cranberry bog as stated in Section 3.8.2 ranges from five to ten acres in area. Cranberries now return about $4,200/acre in profit to the farmer; therefore, a five acre bog can return an income of between $20-22,000/year to the farmer. The guideline parcel size is based upon a typical economic farm unit for the area. Further divisions of resource land in this area will be based upon an analysis of all farm units established within the boundaries of the farm district as shown in Figure 3.8.B.

The remaining agricultural land in the county, which is grazing land, will be administered by the Forestry Grazing zone which is based on the requirements of ORS 215 for agricultural uses but also allows typical forest uses due to the intermixture of these resources on these land areas. The application of this zone to land in the county will be based upon the existing parcelization of these lands. It is intended that there will be four Forestry Grazing (FG) designations with 10, 20, 40, and 80 acre lot size guidelines which will be applied to those agricultural lands.

The 40 acre guideline has been applied to lands which are generally capable of producing farm income from a parcel of that size through acceptable farm practices of grazing or pasturing of beef cattle or sheep, and dairying.

The predominant soil type in the coastal area that has been designated for grazing or pasture use is the Orford association (Orford silty clay loam). This soil type under a management plan that includes drainage, improved grasses and legumes, rotation, lime, and proper fertilization is capable of producing 12 AUM (animal units per month)*. Therefore,

under such management a farmer could conceivably make a profit and become an economic farm unit by the following analysis for beef cattle.

---

*--Soil Conservation Service---USDA (1970) p.-37

Basic data--

Grass legume yield in pasture - 12 AUM

Grazing season in Curry County - 7 months

1 Animal Unit - 1 cow calf pair

1 cow clf pair - 1500 lbs. - live animal weight

Price of beef - $0.80/lb.

$\frac{12\text{-AUM}}{7\text{-mos.}}$ --- 1.7 Animal Units

1.7 -- X -- 39 acres - 66.3 Animal Units (AU)

11.3 AU -- X -- 1500 -- lbs. - -- 99,450 lbs.

99,450 -- X -- $0.80/lb. --- - -- $79,560 -- gross income

---------- X 0.20 -- profit (20%)

----- $15,512 -- net income

The above analysis indicates that the land under intensive management with a farmer that is sufficiently efficient to return a 20% profit a reasonable living could be made on a 40 acre parcel. The 80 acre guideline size is utilized in areas where lands which could be managed as economic farm units similar to that described above are presently in larger parcel sizes.

The farm management plan submitted with the proposed land division -- of -- agricultural -- land -- must -- include -- the -- following information:

1. ---A map of the subject property including some indication of ground slope.

2. ---A determination of soil types present on the subject property.

3. ---A report which states the following:

a) ---the type of grass, legume, or crop either present

or to be planted to bring each parcel proposed to maximum yield;

b) the type and amount of soil amendments (lime, fertilizer, etc.) or treatments necessary to achieve maximum yield on each parcel proposed in the land division;

c) the type, quantity and source of irrigation water to be applied to the land to achieve maximum yield if required, and

d) the stocking levels and field rotation of stock to reach maximum yield on each parcel proposed in the land division.

This management plan will provide the basic findings of fact that will become part of the decision to allow the division of land and as such will be a part of the permanent record of the county regarding the issue. Since the division of land is approved on the basis of the management plan, the plan should also be noted as part of the disclosure statement, the plat or map of the parcel and the chain of title for the parcel.

Curry County has adopted an eighty (80) acre minimum lot size, including exceptions to that minimum size, for all agricultural lands in the county as required by Oregon Administrative Rules (OAR Chapter 660, Division 33). Implementation of these agricultural zones the eighty (80) acre minimum lot size will have the following effect on these resource lands: 1) it will limit the land use to those agricultural uses which are compatible to the farm practices of the area in general allow the continuation of existing agricultural uses in these areas and 2) lot size criteria in the resource zones will it will limit further parcelization of these lands to lots which are comparable to the present parcelization of these lands but not sizes below a size needed for resource use. These zones also have the provision for nonfarm dwellings as a conditional use which would be allowed on "grandfathered" substandard parcels provided they meet the criteria outlined in the zone which is specified in ORS 215 and if adequate findings are developed to justify the dwelling.

4.5 LOT SIZE DETERMINATION FOR FOREST LANDS

Commercial forest lands have been placed in a Timber zone that allows commercial forestry uses and other compatible uses exclusively. The Timber and Forestry Grazing zones have a minimum lot size guideline of 160 80 acres which has been established by Oregon Administrative Rule (OAR Chapter 660, Division 6) on the basis of it being a more or less standard sized parcel of land.

~~Most commercial forest lands are divided along government survey lines utilizing land tracts as sections or parts of sections. One quarter section of land (160 acres) is a practical unit of land for commercial forestry management purposes where the standard forest practices of clear cut, slash disposal, chemical vegetation control, etc. are used. The Timber zone, however, does not specify a minimum lot size so that small parcels can be created for resource purposes subject to meeting the division of land criteria specified in the zone.~~

The Forestry Grazing designation is applied to lands which either have a combination of agricultural and forest uses or have the capability for either use. Therefore, ~~divisions of land~~ **each parcel** must be considered in terms of either ~~agricultural or forestry uses or a combination of these uses~~ **whether the land is predominantly suitable for agricultural or forestry use**.

~~4.5.1 Farm/Forest Use Determination~~

A determination of the ~~principal~~ **predominant** resource use of ~~the land~~ **a parcel** shall be based on the following factors:

1. the SCS classification of the soil and its agricultural capability;

2. the cubic foot site class of the ~~land~~ **soil** and/or other indicators of forest capability **of the parcel**;

3. the present use of the ~~land~~ **parcel**;

4. the present natural **vegetative** cover of the ~~land~~ **parcel**;

~~5. other factors which have bearing on the agricultural or forestry use of the land such as topography, exposure, irrigation water availability, etc.~~

An assessment of the specific parcel of land shall be made by the Planning Director in terms of the above information which ~~is~~ **shall be** provided by the applicant. **Predominant use means that use (either farm or forest use) to which more than half of the land area of the parcel is being used at the time application to the county is made under the zoning ordinance.** ~~Once the proposed resource use of the land has been ascertained then the proposed division of land shall be submitted to the Planning Commission on the basis of the criteria defined in the Forestry Grazing (FG) zone for divisions of farm parcels, forest parcels or both.~~

~~4.5.2 Resource Management Plan~~

~~Proposals for divisions of land or the siting of a forest dwelling on agricultural land or combinations of forest and~~

agricultural land shall be supported by a management plan for the specific site to provide a factual basis for the decision of the Planning Commission. The resource management plan submitted with the proposed land division or proposed forest dwelling must include the following information:

1. a map of the subject property including some indication of ground slopes; and

2. a determination of soil types and other significant factors present on the property; and

3. a report which contains the following:

A. For Agricultural Land:

1) the SCS classification of the soil and its agricultural capability;
2) the type of grass, legume, or crop either present or to be planted to bring each parcel proposed to maximum yield;
3) the type and amount of soil amendments (lime, fertilizer, etc.) or treatments necessary to achieve maximum yield on each parcel proposed in the land division;
4) the type, quantity and source of irrigation water to be applied to the land to achieve maximum yield if required; and
5) the stocking levels and field rotation of stock to reach maximum yield on each parcel proposed in the land division.

B. For Forest Land:

1) the cubic foot site class of the land and/or other indicators of forest capability;
2) the type, age, class and estimate of the quantity of timber present on the property;
3) the type of forest or woodlot management practice necessary to bring each parcel proposed in the division of land into maximum forest yield;
4) the type, quantity and location of all trees which must be planted to bring each parcel into maximum forest yield; and
5) any amendment or treatments to the land or trees which must be carried out to assure maximum yield from each proposed parcel.

This management plan provides information to assist the county in determining: (1) whether a forest dwelling would be accessory and required for a forest use, or (2) whether a division of

resource land satisfies the requirements for divisions of land sections A through C contained in the county's four resource zones. Basic findings of fact will be developed that will become a part of the decision to allow or deny the application and as such will become a part of the permanent record of the county regarding the application.

Curry County Comprehensive Plan
Ordinance #83-7
Adopted August 1, 1983

CURRY
COUNTY
Public Services

COURT BR 51 PAGE 301

IN THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

Filed 8-1-83
EUGENE P. BAUMANN
Curry County Clerk
Deputy

In the Matter of)
Adoption of the Curry County) ORDINANCE 83- 7 .
Comprehensive Plan of 1983)

WHEREAS, the Curry County Board of Commissioners and the Curry County Planning Commission have held numerous meetings to develop a comprehensive plan in compliance with ORS Chapters 197 and 215; and

WHEREAS, in the opinion of the Board and of the Curry County Planning Commissioner, the Curry County Comprehensive Plan of 1983 complies with all the requests for compliance made by the Land Conservation and Development Commission during the acknowledgment process of the Curry County Comprehensive Plan of 1982; and

WHEREAS, after due public notice pursuant to ORS 215.060 hearings were held for the adoption of the Curry County Comprehensive Land Use Plan on the following dates: 27 June, 1983 and 11 July, 1983;

NOW, THEREFORE, the Curry County Board of Commissioners ordains as follows:

THAT the Curry County Comprehensive Land Use Plan of 1983 is hereby officially adopted this date. This Ordinance shall repeal Curry County Comprehensive Plan Ordinance of 1982, Ordinance 82-1.

DATED this 1st day of August, 1983.

BOARD OF COUNTY COMMISSIONERS

Kelly Ross, Chairman

Donald K. Buffington, Commissioner

John Glenn Mayea, Commissioner

BOOK OF RECORDS

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IN THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

1-30-84

Janne K. Pavegar
Deputy

In the Matter of an Amendment to Ordinance 83-7 -- The Curry County Comprehensive Plan of 1983	))))	ORDINANCE NO. 84-3

WHEREAS, ORS. 215.110 authorizes the governing body to amend ordinances to carry out the comprehensive plan; and

WHEREAS, Ordinance 83-7 adopted the Curry County Comprehensive Plan of 1983 in order to give effect to the plan; and

WHEREAS, both ORS. 215.050 and ORS. 215.503 require that legislative acts by the governing body relating to the comprehensive plan including revisions thereto be adopted by ordinance;

WHEREAS, revision of the Curry County Comprehensive Plan of 1983 (83-7) is recommended per ORS. 215.110 by both the Curry County Planning Commission and Planning Director so that Ordinance 83-7 satisfies the "In Order to Comply" requirements of the Oregon Land Conservation and Development Commission per ORS. 197.251; and

WHEREAS, adoption of additional information and supplemental findings to both the Committed Lands Document and Natural Resources Inventory Document contained within the Curry County Comprehensive Plan of 1983 is recommended per ORS. 215.110 by both the Curry County Planning Commission and Planning Director for the reasons set forth above; and

WHEREAS, public hearing was held on January 30, 1984 after proper notice was given per ORS. 215.060 to discuss revision of and supplementation to Ordinance 83-7;

NOW, THEREFORE, the Board of Curry County Commissioners ordains as follows:

THAT the Curry County Zoning Ordinance of 1983 is hereby amended and supplemented effective this date. This Ordinance shall repeal portions of Curry County Comprehensive Plan of 1983 that conflict with and/or are superceded by the attached amendments and supplements to be incorporated into the Curry County Comprehensive Plan of 1983.

DATED this 30th day of January, 1984.

BOARD OF COUNTY COMMISSIONERS

John Glenn Mayea JGM

John Glenn Mayea, Chairman

Donald K. Buffington

Donald K. Buffington, Commissioner

Kelly Ross

Kelly Ross, Commissioner

COURT BR. 53 PAGE 135

53 PAGE 145

IN THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

Filed JUL 10 1984
EUGENE P. DAUMANN
Curry County Clerk
Deputy

In the Matter of Amendment to Ordinances 83-7 and 84-3 - The Curry County Comprehensive Plan of 1983	)	ORDINANCE 84-11

WHEREAS, ORS. 215.110 authorizes the governing body to amend ordinances to carry out the comprehensive plan; and

WHEREAS, Ordinances 83-7 and 84-3 adopted the Curry County Comprehensive Plan of 1983 in order to give effect to the plan; and

WHEREAS, both ORS. 215.050 and ORS. 215.503 require that legislative acts by the governing body relating to the comprehensive plan including revisions thereto be adopted by ordinance; and

WHEREAS, revision of the Curry County Comprehensive Plan of 1983 is recommended per ORS. 215.110 by the Curry County Planning Commission and Planning Director so that Ordinances 83-7 and 84-3 satisfy the "In Order to Comply" requirements of the Oregon Land Conservation and Development Commission per ORS. 197.251; and

WHEREAS, public hearings were held on June 25, 1984 and July 9, 1984 after proper notice was given per ORS. 215.060 to discuss revision of Ordinances 83-7 and 84-3;

NOW, THEREFORE, the Board of Curry County Commissioners ordains as follows:

THAT the Curry County Comprehensive Plan of 1983 is hereby amended effective this date. This Ordinance shall repeal portions of the Curry County Comprehensive Plan of 1983 that conflict with and/or are superseded by the attached amendments to be incorporated into the Curry County Comprehensive Plan of 1983.

DATED this 9th day of July, 1984.

BOARD OF COUNTY COMMISSIONERS

John Glenn Mayea

John Glenn Mayea, Chairman

Donald R. Buttington

Donald R. Buttington, Commissioner

Kelly Ross

Kelly Ross, Commissioner

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IN THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

Filed 2-18-85
EUGENE P. NAUMANN
Curry County Clerk
Deputy 10:00 AM.

In the Matter of an Amendment to Ordinance 83-7 The Curry County Comprehensive Plan of 1983	))))	ORDINANCE NO. 85-31

WHEREAS, ORS. 215.110 authorizes the governing body to amend ordinances to carry out the comprehensive plan; and

WHEREAS, Ordinance 83-7 adopted the Curry County Comprehensive Plan of 1983 in order to give effect to the plan; and

WHEREAS, both ORS. 215.050 and ORS. 215.503 require that legislative acts by the governing body relating to the comprehensive plan including revisions thereto be adopted by ordinance; and

WHEREAS, adoption of additional information and supplemental policies to the Recreation Chapter of the Curry County Comprehensive Plan of 1983 is recommended by a citizen task force committee that reviewed the issue of motorized vehicle use in the coastal zone areas of the county and prepared these revisions ; and

WHEREAS, revision of the Curry County Comprehensive Plan of 1983 (83-7) is recommended per ORS. 215.110 by both the Curry County Planning Commission and Planning Director so that Ordinance 83-7 addresses the use of motorized vehicles in the coastal zone of Curry County; and

WHEREAS, public hearing was held on July 15, 1985 after proper notice as given per ORS. 215.060 to discuss revision of and supplementation to Ordinance 83-7;

NOW, THEREFORE, the Board of Curry County Commissioners ordains as follows:

THAT The Curry County Comprehensive Plan of 1983 is hereby amended and supplemented effective this date. This Ordinance shall repeal portions of Curry County Comprehensive Plan of 1983 that conflict with and/or are superceded by the attached amendments and supplements to be incorporated into the Curry County Comprehensive Plan of 1983.

This Ordinance being necessary for the immediate preservation of the public peace, health and safety, an

emergency is declared to exist and the Ordinance shall become effective upon passage.

DATED this 15th day of July, 1985.

BOARD OF COMMISSIONERS

John Glenn Mayea

John Glenn Mayea, Chairman

Rocky McVay

Rocky McVay, Commissioner

Thomas M. McKenzie

Thomas M. McKenzie, Commissioner

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FILED 3-6-89
ELAINE M. [illegible]
Curry County
Deputy 11:30 A.M.

IN THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

In the Matter of the Adoption of Revisions to the Curry County Comprehensive Plan) ORDINANCE NO 89-1

WHEREAS, the Curry County Board of Commissioners is required to adopt a comprehensive plan in compliance with ORS Chapters 197 and 215; and

WHEREAS, the Board adopted a comprehensive land use plan for Curry County on April 26, 1982; and

WHEREAS, the Oregon Land Conservation and Development Commission (LCDC) acknowledged the Comprehensive Plan on February 3, 1984 by Acknowledgement Order #86-ACK-078; and

WHEREAS, the Oregon Supreme Court remanded 1000 Friends vs. LCDC and Curry County for reconsideration of the Curry County Acknowledgement Order on August 12, 1986; and

WHEREAS, the Oregon Land Conservation and Development Commission has issued a Continuance Order (87-CONT-003) requiring Curry County to amend its comprehensive plan in accordance with its order in the matter of Goal 2 exceptions to Statewide Planning Goals 3 and 14, and with regard to County policies concerning urbanization; and

WHEREAS, the Curry County Planning Commission has recommended approval of the proposed comprehensive plan amendment; and

WHEREAS, the Curry County Board of Commissioners has held public hearings on this matter after due public notice;

NOW, THEREFORE, the Curry County Board of Commissioners ordains as follows;

That Curry County Ordinance 82-1 be amended by repealing Sections 14.4 (Urban Growth Boundaries), 14.5 (Rural Communities), 14.5.1 (Community of Langlois), 14.5.2 (Community of Ophir), 14.5.3 (Community of Nesika Beach), 14.5.4 (Community of Agness), 14.6 (Committed Land Analysis), 14.7 (Rural Residential Lands), 14.8 (Need for Additional Rural Residential Lands) and 14.9 (Plan Policies Regarding Urbanization) and by adding the attached placement text at Sections 14.4 (Urban Growth Boundaries), 14.5 (Rural Communi-

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ties), 14.5.1 (Community of Langlois), 14.5.2 (Community of Ophir), 14.5.3 (Community of Nesika Beach), 14.5.4 (Community of Agness), 14.6 (Rural Land Exceptions), 14.7 (Zoning of Rural Lands) and 14.8 (Plan Policies Regarding Urbanization) and to adopt goal exceptions.

DATED this [illegible] day of [illegible], 1989.

CURRY COUNTY
BOARD OF COMMISSIONERS

Rocky McVay

Rocky McVay, Chairman

T. V. Skinner

T. V. Skinner, Commissioner

David F. Werschkul

David F. Werschkul, Commissioner

COURT BOOK OF RECORDS

'90 MAY 7 PM 2 19

IN THE BOARD OF COUNTY COMMISSIONERS
IN AND FOR THE COUNTY OF CURRY

In the Matter of the Adoption of Revisions to the Curry County Comprehensive Plan) ORDINANCE NO. 90-09

WHEREAS, the Curry County Board of Commissioners is required to adopt a comprehensive plan in compliance with ORS Chapters 197 and 215; and

WHEREAS, the Board adopted a comprehensive land use plan for Curry County on April 25, 1982; and

WHEREAS, the Oregon Land Conservation and Development Commission (LCDC) acknowledged the comprehensive plan on February 3, 1984 by Acknowledgement Order (83-ACK-827); and

WHEREAS, the Oregon Supreme Court remanded 1984 Friends vs. LCDC and Curry County for reconsideration of the Curry County Acknowledgement Order on August 12, 1986; and

WHEREAS, the Oregon Land Conservation and Development Commission has issued a Continuance Order (89-CONT-591) requiring Curry County to amend its comprehensive plan in accordance with its order in the matter of Goal exceptions to Statewide Planning Goals 3, 4, and 14, and with regard to County policies regarding farm and forest lands and concerning urbanization; and

WHEREAS, the Curry County Planning Commission has recommended approval of the proposed comprehensive plan amendment; and

WHEREAS, the Curry County Board of Commissioners has held public hearings on this matter after public notice;

NOW THEREFORE, the Curry County Board of Commissioners ordains as follows;

That Curry County Ordinance 82-1 and subsequent amendments thereto be amended by repealing Sections 3.11 (General Plan Policies for Agricultural Lands); 4.6 (General Plan Policies for Forest Lands), 14.8 (Plan Policies Regarding Urbanization), Figure 18.2.A (Plan Designation-Zone Change Relationship) and by adding the attached replacement text at Sections 3.11 (General Plan Policies for Agricultural Lands); 4.6 (General Plan Policies for Forest Lands), 14.8 (Plan Policies Regarding Urbanization), Figure 18.2.A (Plan Designation-Zone Change Relationship) and to amend goal exceptions by repealing exceptions RLE-3, RLE-5, RLE-9,

RLE-59, RSE-3, RSE-7, RSE-11, RSE-12, RSE-13, RSE-14, RSE-15, RSE-16, RSE-19, RSE-20, and RSE-25; and by adding the attached replacement exceptions to the Exceptions Document for RLE-3, RLE-5, RLE-9, RLE-59, RSE-3, RSE-7, RSE-11, RSE-12, RSE-13, RSE-14, RSE-15, RSE-16, RSE-19, RSE-20, and RSE-25.

DATED this 7 day of May, 1989

CURRY COUNTY
BOARD OF COMMISSIONERS

David F. Werschkul, Chairman

Rocky McVay, Commissioner

T. V. Skinner, Commissioner

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COURT BR. 67 PAGE 000783

'90 MAY 11 AM 10:05

ELAINE JOY
CURRY COUNTY CLERK

IN THE BOARD OF COUNTY COMMISSIONERS
IN AND FOR THE COUNTY OF CURRY

IN THE MATTER OF An Ordinance Amending the Comprehensive Plan Relating to Onshore Facilities Supporting Offshore Oil, Gas, and Mineral Exploration and Development	)	ORDINANCE 90- 12

WHEREAS, the United States Department of Interior has included the entire length of the outer continental shelf off the coast of Oregon in the current five-year plan for offshore oil and gas development; and

WHEREAS, the Oregon seas are among the most environmentally sensitive and biologically productive marine regions in the conterminous 48 states; and

WHEREAS, offshore oil, gas and mining development off the coast of Curry County could have the following significant effects upon the County:

1) the placement of the following segments of the existing economy in jeopardy - fishing, tourism, and recreation; and

2) the increased risk of a number of onshore environmental problems including air pollution, oil spills, the discharge of large volumes of highly toxic materials, fires, and the discharge of poisonous gas.

WHEREAS, onshore facilities relating to oil, gas, and mineral development are heavy industrial uses requiring extensive development of the public facility infrastructure which is very limited in Curry County; and

WHEREAS, Oregon Statewide Planning Goal 19 creates a preference for the development of renewable resources over non-renewable resources;

NOW, THEREFORE, the Board of Curry County Commissioners hereby ordains as follows:

SECTION 1: PURPOSE

The purpose of this ordinance is to amend the Curry County Comprehensive Plan text to preclude the development of onshore industrial facilities supporting or related to offshore oil, gas, and mineral exploration and development.

SECTION 2: AMENDMENTS TO THE COMPREHENSIVE PLAN

The Curry County Comprehensive Plan shall be amended by this ordinance as follows:

1) Section 9.4.2 "Industrial Lands and Needs" shall be amended by adding the text included in EXHIBIT A of this ordinance at the end of that section of the comprehensive plan; and

2) Section 9.5 "PLAN POLICIES REGARDING THE ECONOMY OF THE COUNTY" shall be amended by adding the text included in EXHIBIT B of this ordinance at the end of that section of the comprehensive plan.

SECTION 3: SEVERABILITY

If any section, subsection, paragraph, sentence or word of this ordinance shall be held to be invalid, either on its face or as applied, the invalidity of such provision shall not affect the other sections, subsections, paragraphs, sentences or words of this ordinance, and the applications thereof; and to that end the sections, subsections, paragraphs, sentences or words of this ordinance shall be deemed to be severable.

DATED this 23 day of April, 1990.

BOARD OF COMMISSIONERS

David F. Werschkul, Chairman

T. V. Skinner, Commissioner

Rocky McVay, Commissioner

91 SEP 9 PM 3:00

ELAINE JOY
CURRY COUNTY CLERK

IN THE BOARD OF COUNTY COMMISSIONERS

IN AND FOR THE COUNTY OF CURRY

In the Matter of the
Adoption of Revisions to the Curry County Comprehensive Plan

ORDINANCE NO. 91-14

WHEREAS, the Curry County Board of Commissioners is required to adopt a comprehensive plan in compliance with ORS Chapters 197 and 215; and

WHEREAS, the Board adopted a comprehensive land use plan for Curry County on April 26, 1984; and

WHEREAS, the Oregon Land Conservation and Development Commission (LCDC) acknowledged the comprehensive plan on February 8, 1984 by Acknowledgement Order 84-ACK-277; and

WHEREAS, the Oregon Land Conservation and Development Commission (LCDC) re-acknowledged the comprehensive plan on January 24, 1991 by Acknowledgement Order 91-ACK-736; and

WHEREAS, the City of Gold Beach has determined that there is a need to amend its Urban Growth Boundary (UGB) based upon findings which show that the existing UGB should be enlarged because of the physical development and irrevocable commitment of lands outside of the UGB which are served by city utilities and services; and

WHEREAS, the Curry County Planning Commission has recommended approval of the proposed comprehensive plan amendment to amend the UGB; and

WHEREAS, the Curry County Board of Commissioners has held a public hearing on this matter after public notice;

NOW THEREFORE, the Curry County Board of Commissioners ordains as follows:

That Curry County Ordinance 82-1 and subsequent amendments thereto be modified by amending the comprehensive plan map with respect to the location of the City of Gold Beach Urban Growth Boundary as shown in Figure 1 of this ordinance and by adopting the findings (Exhibit A) to support this amendment as an appendix to the comprehensive plan.

DATED this 9th day of September, 1991

CURRY COUNTY
BOARD OF COMMISSIONERS

Rocky McVay, Chairman

David E. Werschkul, Commissioner

Peg Reagan, Commissioner

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CREDITS

The 1981 revision of the Curry County Comprehensive Plan was not the result of the single effort of one person or group of persons but rather the combined efforts of numerous individuals who spent many hours in preparing and reviewing material, both privately and publicly, and finally developing the completed document herein.

The Curry County Board of Commissioners provided the guidance for the development of this document especially during final review of the plan by carrying out lengthy workshop sessions and public hearings. Commissioners Donald Buffington, Shirley Van Loo, Kelly Ross and John Glenn Mayea were active participants in this phase of the process with their comments and input to the draft plan and by providing a forum for citizen involvement.

The Curry County Planning Commissioners provided several years of guidance and input into the development of the comprehensive plan through their participation in numerous workshop sessions and public hearings including the final workshop sessions regarding the revised plan. Robert Sharp served as Planning Commission chairman while this plan revision was carried out and actively participated in its development. Significant input was also received from the other members of the Planning Commission including Georgina Wahl, Bethna Goergen, Joe Genre, Norman Yock, Dale Coleman, Ed Crowder, George Hiatt, and Bob Drake.

Most of the preliminary draft material for the revised comprehensive plan was initially prepared by the professional staff of the Curry County Planning Department. The Planning Department during this period was under the Directorship of Robert Higbie until September, 1981, with Chuck Nordstrom as Planning Director since that time. Staff Planners Jeanne Chamberlain, Ruth Wahl and Laura Greathead provided the many hours of research, data compilation, writing, and illustration preparation required for preparation of the draft plan document.

Credit for the actual preparation of the draft plan document and its revisions in terms of typing, collating and copying go to the secretarial staff of the Curry County Planning Department, Jean Nulf and Rosalie Gaither with many hours of help from Sharon Leming of the Curry County Department of Environmental Sanitation and Beverly Head of the Curry County Building and Plumbing Department. Secretarial assistance was also provided by Doris Brewer and Berdette MacDonald of the Curry County Commissioners' Office who recorded the public testimony and prepared the Minutes for the numerous workshops and public hearings before the Board of

Commissioners. Jean Nulf also served as recording secretary for the Curry County Planning Commission during development and revision of the comprehensive plan and was responsible for the public record of those meetings..

Development and revision of Chapter 16 Estuarine Resources was by the Coos-Curry Council of Governments under the Directorship of Ms. Sandra Diedrich. Most of the research, parparation of data illustrations and text for this chapter was done by CCCOG Planners Jack Sabin, Mark Bean and Joe Dill.

Appreciation is also extended to Bill Grile, Director of the Coos County Planning Department, and Planner Phil Quarterman of that department for suggestions regarding some of the material included in the plan. They were particularly helpful in the areas of resource zoning, commitment of lands to nonresource use and the coordination of plan designations for similar lands in both counties.

Finally, appreciation is also extended to the hundreds of Curry County Citizens who donated their time to participate in the development of the comprehensive plan by attending the many workshop sessions and hearings. Their involvement in the comprehensive planning process, whether pro or con, is the only real justification for the effort since the comprehensive plan must somehow reflect the wishes and desires of the majority of the people in the county.

1. INTRODUCTION

1.1 GENERAL INTRODUCTION

This document is the Comprehensive Land Use Plan for Curry County. It is proposed to serve as the guiding document for the future growth of Curry County to the year 2000. The plan was prepared in accordance with the State of Oregon Planning Law in existance at the time of its adoption and is based on the principle that the people of the county have a right to determine their own destiny consistent with sound principles of conservation and development of the lands within the County.

The comprehensive plan was prepared by the Curry County Board of Commissioners with help from the Curry County Planning Commission, Curry County Citizens Committee for Involvement, and individual citizens of the county. Staff support for preparation of the plan was provided by the Curry County Planning Department, the Coos-Curry Council of Governments and citizen volunteers. The comprehensive plan is also a direct result of the thousands of hours of time donated by county citizens, who volunteered their time to attend meetings in the plan development stage and final review of the document at its adoption.

1.2 PURPOSE AND SCOPE

The Oregon Legislature enacted Senate Bill 100 in 1973 which created the Land Conservation and Development Commission (LCDC) which is empowered to review and acknowledge comprehensive plans for all cities and counties of the state.

The definition of a comprehensive plan under Oregon law is as follows:

> A comprehensive plan is a set of public decisions dealing with how the land, air and water resources of an area are to be used or not used....(based upon consideration of) the present and future of our area (LCDC 1977).

> The plan is termed "comprehensive" because it: ...provides for all the resources, uses, public facilities and services in an area. It also incorporates the plans and programs of the various governmental units into a single management tool for the entire planning area. (LCDC 1977)

Senate Bill 100, became Chapter 197 of the Oregon Revised Statutes (ORS), which required LCDC to develop statewide planning "Goals and Guidelines" that are the standards under which comprehensive plans are developed by local governments. The statewide planning "Goals" are law and require compliance the same as any state law. The "Guidelines" are not mandatory, but are intended to provide direction as to how to comply with the "Goals".

Acknowledgement of a comprehensive plan means that LCDC has reviewed the plan and has found it to be in compliance with the Statewide Planning Goals. Once the plan is acknowledged by LCDC the Goals become of secondary importance and the comprehensive plan becomes the supreme document ruling land use decisions in the County.

The statewide planning program is supposed to be a "state/local partnership-10% state 90% local" (LCDC 1978); however, this type of relationship has never seemed to develop in reality. LCDC has interpreted the Goals in their most restrictive sense and insisted that comprehensive plans be oriented in favor of conservation such that local discretion is extremely limited. The statewide planning Goals do make provision for "exceptions" to the law where "compelling reasons and facts" indicate that it is not possible to apply a Goal to specific properties or situations (LCDC Goal 2). Experience in dealing with the exceptions process has indicated that it is very difficult to develop the "compelling reasons and facts" to justify an exception to any of the Goals. Curry County has, in its comprehensive plan, attempted to provide an exception to various "resource" goals for certain areas of the county on the basis of committment to nonresource uses by development of a Committed Lands Document. This document is appended to the comprehensive plan as supporting evidence for the decisions made by the County as plan policies.

In conclusion, the Curry County Comprehensive Plan is a locally developed document which states county policy regarding:

1) how Curry County is seeking to meet its legally mandated responsibilities under ORS 197.175 and 215.050 and;

2) how Curry County coordinates planning activities between the county, cities, special districts, and all affected agencies.

1.3 HISTORICAL PERSPECTIVE OF THE PLAN

This revision of the Curry County Comprehensive Plan represents the most recent effort of the county to express its concerns and desires regarding land use and is the culmination of over 44 years of land use planning in the county. Land use planning in Curry County began with House Joint Resolution #3 of the Thirty-Eighth Legislative Assembly when the State Planning Board was directed to make a landuse study in Curry County. The Planning Board submitted a report covering the history, problems and statistics about the County to the Thirty-ninth Legislative Assembly.[1] As a result of this study Oregon's first Land Use Law was enacted as Chapter 381 of Oregon Laws 1937. Under this law three classes of land use were recognized, timberland, interim grazing land during reforestation, and agricultural and grazing land. Under this law landowners effectively zoned most of the land outside the National Forest boundary.

In 1947 Oregon counties were authorized by the State Legislature to establish county planning commissions and to exercise certain powers in the field of planning and zoning. The Curry County Board of Commissioners established a county Planning Commission in April, 1968 and empowered them to develop a Comprehensive plan for the county. A "Preliminary 1990 Land Use Plan" was completed and adopted in June, 1971 in response to Senate Bill 10[2]. This plan was followed by a Zoning Ordinance (adopted July 7, 1972) and Subdivision Ordinance (adopted August 8, 1974). This comprehensive plan and implementing ordinances served as the land use policy of the county until 1979.

Following the passage of Senate Bill 100 Curry County initiated a revision of its 1990 Land Use Plan in 1975. The first response of the county to the statewide Goals was to establish a Citizens Committee for Involvement (CCI) under provisions of Goal 1. On February 10, 1976, the Curry County Board of Commissioners formalized the CCI with 15 members. The plan development process adopted by the CCI and Planning Commission was to divide the county area into

---

[1] Oregon State Planning Board (1936)

[2] Curry County (1971)

seven "planning units" and develop comprehensive plans for each of these areas. The seven sub-plans were then finally compiled in a county-wide comprehensive plan during the final adoption of the completed document.

The history of the planning process involved 31 CCI meetings, 14 joint CCI/Planning Commission meetings and 37 Planning Commission meetings. This process was initiated December 31, 1975, and ended August 2, 1979, for a total period of 4 years and 8 months.

This process involved the CCI in plan development, citizen questionnaire development, tabulation and assessment and other areas of citizen's involvement. Therefore, their input was valuable to the county as a versatile planning body.

The following summary of CCI and Planning Commission meetings is included to give an insight as to the coordination and range of activities these bodies became involved in.

February 5, 1976	CCI and Planning Commission review of Planning Process, planning units discussed.
February 11, 1976	Special meeting to review Inventories; planning units approved (map). Harbor/Winchuck to be done first.
March 6, 1976	Set priority of planning units to be done.
June 24, 1976	Joint Planning Commission/ CCI Inventories, Harbor.
July 15, 1976	Planning Commission and CCI discussed questionnaires.
July 22, 1976	Planning Commission and CCI at Brookings to review Harbor inventories.
August 5, 1976	Review of workshop and district inventories for Harbor.
September 2, 1976	Harbor Inventories.
September 28, 1976	Planning Commission and CCI at Harbor. Review inventories.

October 7, 1976	Harbor Urban Growth Boundary.
October 21, 1976	Discussed questionnaire reponses. Maps o· Urban Growth Boundary (Harbor).
November 4, 1976	Discussed UGB, EFU on Harbor Bench. Tour of Harbor.
November 18, 1976	Discussed Harbor land use conflicts.
December 2, 1976	Harbor plan designations.
December 9, 1976	Harbor plan designations.
December 16, 1976	Harbor Citizen's input hearing on land use policies.
January 6, 1977	Harbor Transportation inventories. Port Orford inventory reviewed.
January 20, 1977	Adopt Harbor/Winchuck Planning Unit. Distributed CCI questionnaire for Port Orford/Langlois.
April 7, 1977	Port Orford questionnaire responses reviewed. Port Orford inventories.
April 14, 1977	Planning Commission/CCI workshop on Port Orford inventories.
April 21, 1977	Review of estuary classifications.
April 28, 1977	At Port Orford (Pacific High School) Planning Commission and CCI tour and meeting. Reviewed inventories, Exclusive Farm Use, Estuaries, Industries and Commercial, Recreation and UGB.
May 5, 1977	Review of Brookings inventories. Adopted Port Orford Plan.

June 2, 1977	Planning Commission and CCI meeting at Brookings. Reviewed Coastal Goals, review of Chetco flood plain; land use.
June 16, 1977	Review Brookings questionnaires.
July 28, 1977	Planning Commission and CCI at Brookings; review of Brookings inventories.
August 11, 1977	Discussion of Chetco estuary and airport area land use.
October 27, 1977	Planning Commission and CCI at Brookings to discuss Brookings plan and Chetco estuary.
November 3, 1977	Adopt Chetco Estuary plan #2.
December 1, 1977	Review of draft Brookings Plan.
January 5, 1978	Review of Board action on Brookings Plan.
March 2, 1978	Review of Shoreland inventory.
April 6, 1978	Review of Shoreland inventory.
June 1, 1978	Review of Gold Beach inventories, Gold Beach responses to questionnaires, adopt Plan/Zone Compatibility standards.
August 31, 1978	Tour and meeting on Gold Beach plan.
October 19, 1988	Review Historical inventory.
November 2, 1978	Review of Gold Beach plan.
November 16, 1978	Review of zoning ordinance; review Gold Beach plan.
December 7, 1978	Review of Gold Beach plan and Urban Growth Boundary.
December 21, 1978	Review of Agness/Kalmiopsis plan.
January 4, 1979	Approved Agness and Kalmiopsis.

February 1, 1979	Review of Pistol River planning unit and review of Road Standards.
February 15, 1979	Road Standards.
March 1, 1979	Pistol River discussed.
March 22, 1979	Planning Commission and Brookings Planning Commission met to discuss Brookings UGB.
April 5, 1979	Road Standards
April 26, 1979	Gold Beach plan hearing.
July 5, 1979	Reviewed need for updating application forms to address LCDC goals.
July 19, 1979	Review of draft application forms; review of Planning Commission policies.
August 2, 1979	Adopted revised application forms.
October-November 1979	Curry County Board of Commissioners hearings on comprehensive plan and zoning ordinance.
December 4, 1979	Curry County Board of Commissioners adopt comprehensive plan and zoning ordinance.[1]
December 11, 1979	Curry County submits plan to LCDC for acknowledgement.

LCDC reviewed the Curry County Comprehensive Plan on May 8, 1980, and found that the plan did not comply with any of the applicable Goals. Because the plan was deficient in so many areas LCDC refused acknowledgement and adopted an enforcement order which restricted most land use actions in the county. The history of comprehensive plan development since the LCDC hearing is summarized as follows:

May 8, 1980	LCDC Hearing on Comprehensive Plan.

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[1] Curry County (1979).

July 11, 1980	LCDC Hearing on enforcement order and final adoption of enforcement order.
July 24, 1980	Curry County submitted information on all lands considered to be committed to nonresource use.
August 8, 1980	LCDC exempted certain lands from the enforcement order and requested additional information on committed lands by September 15, 1980.
September 15, 1980	Curry County submitted a 360 page committed lands document to LCDC which provided additional information on those lands considered committed to non-resource use by the county.
October 24, 1980	LCDC concluded that the information was insufficient and exempted on 1,100 acres of land from the enforcement order.
December 5, 1980	Curry County presented a work program to complete revision of the comprehensive plan within 18-24 months to LCDC. LCDC responded by requiring a final work program with a compliance date of January 1, 1982.
January 29, 1981	Curry County submitted a work program to complete revision of its comprehensive plan within 12 months and submitted completed inventory maps as a demonstration of efforts already achieved to this end.
February 12, 1981	Curry County responded to an LCDC request for a more detailed work program but decided not to accelerate work on Goal 3 and 4 issues but preferred to work on the whole plan.

January-September 1981	Curry County prepared a revised draft comprehensive plan.
September-December 1981	Workshop and hearings to adopt comprehensive plan by Curry County.
December 1981	Revised plan referred to voters for adoption.
March 30, 1982	Countywide referendum election to decide adoption of comprehensive plan.

County Electorate Rejects Comprehensive Plan

April 9, 1982	Circuit Court Judge Richard Baron issues Writ of Mandamus to Curry County Board of Commissioners requiring adoption of Comprehensive plan within 45 days.
April 26, 1982	Curry County adopts revised comprehensive plan.
April 30, 1982	LCDC lifts enforcement order against Curry County with executive order issued May 3, 1982.
November 19, 1982	LCDC reviews Curry County Comprehensive Plan and grants 150 day continuance order to make plan amendments for compliance.
June 27, 1983	Curry County adopts revisions to the Comprehensive Plan for Goals 1-14.

1.4 PLANNING PROCESS

The development of the Curry County Comprehensive Plan followed a process that is outlined in the Statewide Planning Goals and Guidelines (Goal 1 and Goal 2). The guidelines for Goal 2 outline the general process by which a comprehensive plan should be developed and what information it should include. According to Goal 2 a comprehensive plan should contain the following information:

"A. Factual Bases for the Plan

Inventories and other forms of data are needed as the basis for the policies and other decisions set forth in the plan. This factual base should include data on the following as they relate to the goals and other provisions of the plan:

(1) Natural Resources, their capabilities and limitations

(2) Man-made structures and utilities, their location and condition

(3) Population and economic characteristics of the area

(4) Roles and responsibilities of governmental units.

B. Elements of the Plan

The following elements should be included in the plan:

(1) Applicable statewide planning goals

(2) Any critical geographic area designated by the Legislature

(3) Elements that address any special needs or desires of the people in the area

(4) Time periods of the plan, reflecting the anticipated situation at appropriate future intervals.

All of the elements should fit together and relate to one another to form a consistent whole at all times." (LCDC Goals & Guidelines)

The guideline for Goal 2 also includes information on the preparation of plans and implementing measures which is the framework around which the "planning process" works. The specific language of this guideline is as follows:

"PREPARATION OF PLANS AND IMPLEMENTATION MEASURES"

Preparation of plans and implementation measures should be based on a series of broad phases, proceeding from the very general identification of problems and issues to the specific provisions for dealing with these issues and for interrelating the various elements of the plan.

During each phase opportunities should be provided for review and comment by citizens and affected governmental units.

The various implementation measures which will be used to carry out the plan should be considered during each of the planning phases.

The number of phases needed will vary with the complexity and size of the area, number of people involved, other governmental units to be consulted, and availability of the necessary information.

Sufficient time should be alloted for:

(a) collection of the necessary factual information

(b) gradual refinement of the problems and issues and alternative solutions and strategies for development

(c) desires and development of broad citizen support

(d) identification and resolution of possible conflicts with plans of affected governmental units".[1]

The preparation of a comprehensive plan requires citizen involvement in order to determine the desires and needs of a broad sector of the population of the county. LCDC Goal 1 specifies that..."the governing body charged with preparing and adopting a comprehensive plan shall adopt and publicize a program for citizen

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[1] LCDC (1978)

involvement that clearly defines the procedures by which the general public will be involved in the on-going planning process."

Therefore, Goals 1 and 2 must interlock to form a viable process by which the county develops, adopts, and revises its comprehensive plan.

Curry County initiated the planning process in the county based on the literal interpretation of Goals 1 and 2 with the allocation of professional staff to collect factual material as a basis for the plan and the establishment of a citizens committee to provide input to the plan regarding the needs and desires of the people. During the period from February 1976-December 1979 the "planning process" in Curry County worked as outlined below:

Step 1. County Planning Department staff prepared factual inventory material addressing all goals for a specific area of the county (planning unit).

Step 2. Staff presented inventory material to the Citizen's Committee for Involvement (CCI) for review and discussion.

Step 3. Staff and CCI worked on planning issues and developed plan policies for each goal pertinent to the planning unit.

Step 4. Staff and CCI developed all inventory and goal policy information into a unified plan for the planning unit.

Step 5. The CCI and County Planning Commission held a hearing in the planning unit area for final citizen input into plan and Planning Commission adopted the comprehensive plan for that area.

Step 6. The Board of Commissioners held public hearings on the comprehensive plan for the planning unit and adopted it by court order.

Step 7. Upon completion of all seven planning unit plans the Board of Commissioners held public hearings to adopt the comprehensive plan and implementing ordinances.

This process led to the development of a comprehensive plan that was based on the needs and desires of the people of the county through citizen input as required under Goal 1 and 2.

The Comprehensive Plan adopted under the above process was denied acknowledgement by LCDC requiring that the county initiate a plan revision process to amend the adopted comprehensive plan. During this plan revision the county has modified the standard planning process and citizen involvement procedures. The principal modification to the planning process of this plan revision is to streamline the steps between the development of factual material and consideration by the Board of Commissioners.

During the period of plan revision the planning process basically followed the following steps:

Step 1. Staff developed new inventory factual data and plan policies required to revise the comprehensive plan.

Step 2. The new material was made available for public review by distribution to public libraries.

Step 3. The County Board of Commissioners' held publicly announced workshop sessions every week for review and public discussion of the material until plan document was completed.

Step 4. The county held several public meetings on completed draft comprehensive plan.

Step 5. The County Board of Commissioners scheduled public hearings for adoption of the completed plan and sent mail notice to property owners.

Step 6. County Board of Commissioners referred the revised plan to the voters of the county by referendum.

Step 7. Revised plan failed to be adopted by referendum.

Step 8. A writ of mandamus requiring adoption of a comprehensive plan was filed by citizens of the county.

Step 9. Judge decreed adoption of the comprehensive plan by the Board of Commissioners.

Step 10. Curry County Board of Commissioners adopt comprehensive plan under court order.

This process of plan revision was carried out in accordance with the work program submitted to LCDC and resulted in completion of the revised comprehensive plan on December 29, 1981.

1.5 CITIZEN INVOLVEMENT

A requirement of LCDC Goal 1 is that the County "develop a citizen involvement program that insures that opportunity for citizens to be involved in all phases of the planning process" in order to "provide for continuity of citizen participation and of information that enables citizens to identify and comprehend the issues." Goal 1 also requires that the county "adopt and publicize a program for citizen involvement that clearly defines the procedures by which the general public will be involved in the on-going land-use planning process."

Curry County adopted the Citizens Committee for Involvement (CCI) program to meet these Goal requirements in 1976. This program involved the formation of a citizen involvement committee whose function was to work with county staff in the development of a comprehensive plan, publicize the on-going planning process, receive citizen input to the plan and follow through on the development of the comprehensive plan to its adoption by the county. The CCI program is also considered to be an on-going program that would be utilized in the event of any regular review or revision of the plan after acknowledgement.

An integral part of the CCI program was the publicizing of information regarding the planning process and the use of public meetings to attain direct citizen input to the plan. Every media available in the county was used to advertise these meetings and to encourage citizen involvement. In addition, direct mailings of questionnaires to property owners were used to obtain information from non-resident owners and people who did not attend meetings. In general, CCI meeting attendance varied from less than five people to several hundred persons depending upon the location and issues considered at the meeting. Curry County is satisfied with its CCI program and feels that it functioned adequately during the plan development period and will continue to function during any future plan updates or revisions.

1.6 AGENCY INVOLVEMENT

Goal 2 requires that "all state and federal agency and special district plans and actions related to land use shall be consistent with the county plan". This requirement means that the needs of governmental units affected by the Curry County Comprehensive Plan must be considered so as to accommodate them as much as possible. Curry County has used the following approach to meet the agency involvement aspect of Comprehensive plan development.

1) The county has attempted to inform all affected agencies of the on-going planning process and offer opportunities for their involvement and input into the comprehensive plan.

2) The county has encouraged the development of special district plans as "community plans" for those utility districts which lie in the rural parts of the county.

3) The county has encouraged the use of cooperative agreements between special districts, cities, and the county to coordinate mutual planning concerns. Copies of all such agreements are available for inspection at the Curry County Planning Department.

Appendix 1.6A is a list of affected agencies with which the County planning process was coordinated.

1.7 PROBLEMS WITH THE STATEWIDE PLANNING PROCESS

The statewide planning process, as embodied in the statewide goals, legal opinions and plan acknowledgement procedure requires local government to develop and adopt comprehensive plans and ordinances which contain policies and regulations objectionable to the governing body and its citizens.

The statewide goals, if strictly interpreted, require the local government to be regulatory on the one hand and sensitive to the citizens on the other. These requirements are mutually exclusive in the Curry County experience and difficult to achieve.

The years of effort have resulted in a growing frustration among all those involved with the planning process and this section will try to identify some of those problems and issues which the Board of Commissioners have experienced.

The citizens involvement process while originally invisioned as a method of achieving a fair and balanced comprehensive plan has, in reality, been a frustrating effort by all those involved. While everyone agreed that "planning" was necessary, no one agreed on how it could be accomplished as it related to individual properties without rezoning to state mandated standards. Therefore, the Citizens Involvement meetings generally deteriorated as the topics became more site specific to individual lots owned by the participants rather than providing general input regarding all county lands.

LCDC Goals defines agricultural lands by soil type and requires that such land "be preserved and maintained for farm use." ORS 215.243 states that "reservation of a maximum amount of agricultural land, in large blocks, is necessary to maintain the agricultural economy of the state."

Statewide Goal 3 also states, " such minimum lot sizes as are utilized for any farm use zones shall be appropriate for the continuation of the existing commercial agricultural enterprise with the area." Unfortunately, commercial agricultural activities are not defined at the state level, nor do attempts by local government to develop such a definition meet much successs at the state level. The problem with defining commercial agricultural land is that the definition changes continually based on the dynamics of the economy, weather, price of fuel, water, and many other factors, not to mention the capabilities of a given farmer.

The major problem with the definition of agricultural land, on the other hand, is soil type. Classifying land by soil type has caused several frustrations.

The first is that most land defined as agricultural land in Curry County is simply not agricultural land in the common understanding of the word. There are essentially no lands under food crop cultivation, (except cranberries) outside of gardens, in Curry County and only a small amount of land under production of other crops (horticulture). The vast majority of "agricultural land" is unimproved, low productivity rangeland operated by long established families who own the land outright. Designating this land as agricultural land precludes the rancher from having the ability to sell a parcel in lean years to carry him through. This restriction may well hurt the Curry County agricultural economy rather than assist it by driving good ranchers into bankruptcy during bad years or when confronted with other large bills.

Many of the same issues raised in the agricultural land discussion are identical under the forest lands goal. In Curry County, the soil classification system defines virtually all land that isn't agricultural land as forest land. These mutually supporting and, therefore, all encompassing goals preclude the historic trend of homesite development in Curry County. Newcomers desiring to locate in this area do so to "get away from it all." They wish to locate on acreage parcels with space between neighbors. The resource goals preclude that choice and, in so doing, restrict individuals from choice. Therefore, they will not locate in Curry County and take their expertise and income to an area where their choice can be exercized. We lose and someone else gains.

Appendix 1.6A

The agency coordination list used during the County Comprehensive plan development is as follows:

STATE AGENCIES:

Housing Division
First Floor
Labor & Industries Bldg.
Salem, Or. 97310

Real Estate Board
Real Estate Division
Commerce Building
Salem, Oregon 97310

Economic Develop. Comm.
Dept. of Economic Dev.
Director
317 SW Alder Street
Portland, Or. 97204

Environmental Quality Com.
Dept. of Environmental Quality
P.O. Box 1760
Portland, Or. 97207

Division of State Lands
1445 State Street
Salem, Or. 97310

State Marine Board
Director
3000 Market St. NE, #505
Salem, Or. 97310

State Advisory Committee on Historic Preservation
Cler, Parks and Rec. Br.
300 State Highway Bldg.
Salem, Oregon 97310

Dept. of Transportation
Parks and Rec. Branch
Local Coordinator
Rt. 2, Box 741
Coos Bay, Or. 97420

Executive Department
Intergovernmental Relations Division
240 Cottage Street SE
Salem, Oregon 97310

Dept. of Human Resources
Health Division Director
318 Public Service Bldg.
Salem, Or. 97310

Director
Coos-Durry-Douglas EIA
814 SE. Stephens
Roseburg, Or. 97470

National Marine Fisheries
811 NE Oregon Street
Portland, Or. 97323

State Highway Division
Administrator
State Highway Bldg.
Salem, Or. 97310

Soil and Water Conservation District
Director
1015 13th ST. SE
Salem, Ore. 97310

Local: SCS Conservationist
P.O. Box 666
Gold Beach, Or. 97444

Water Resource Department
Director
555 13th St. NE
Salem, Ore. 97310

Department of Energy
111 Labor and Ind. Bldg.
Salem, Or. 97310

STATE AGENCIES (continued)

State Dept. of Geology &
Mineral Industries
1069 State Office Bldg.
Portland, Oregon 97201

Coos Curry Council of
Governments
Director
P.O. Box 647
North Bend, Or. 97459

State Dept. of Fish and
Wildlife
Director
P.O. Box 3503
Portland, Or. 97208

Local: State Dept. of Fish
Wildlife
Local Coordinator
P.O. Box 1113
Gold Beach, Or. 97444

Area Coordinator
State Dept. of Forestry
2600 State Street
Salem, Or. 97310

Local: Dept. of Forestry
Local Coordinator
300 Fifth Street
Bay Park
Coos Bay, Or. 97420

Oregon State Extension Service
Extension Agent
Curry County Office Bldg.
Gold Beach, Or. 97444

FEDERAL AGENCIES:

Bureau of Land Management
333 S. Fourth Street
P.O. Box 1139
Coos Bay, Or. 97420

Bureau of Land Management
Land Use Planner
310 W. Sixth St.
Medford, Or. 97501

Fed. Energy Administration
Bonneville Power Adm.
Assistant to the Adminis.
Interagency Relations
P.O. Box 3621 - AJ
Portland, Oregon 97208

U.S. Dept. of the Army
Portland District, Corps
of Engineers
P.O. Box 2946
Portland, Or. 97208

Farmer Home Administration
222 E. Second Street
Coquille, Or. 97423

USDI - National Park Service
Portland Field Office
920 NE 7th Street
Portland, Or. 97232

U.S. Geological Survey
Water Resources Division
P.O. Box 3202
Portland, Or. 97208

Federal Emergency
Management Agency
Region X
130-2285h St. SW
Bothell, WA. 98011

FEDERAL AGENCIES (continued)

U.S. Fish and Wildlife Service
Division of Ecological Services
Portland Field Office
919 NE 19th Street
Portland, Or. 97232

U.S. Coast Guard Station
Port of Brookings
Brookings, Oregon 97415
(local)

U.S. Fish and Wildlife Service
Western Oregon Refuges
Rt. 2, Box 208
Corvallis, Or. 97333

Natural Area Preserves Advisory Committee
Botany Department
Oregon State University
Corvallis, Or. 97333

LOCAL AGENCIES:

Mayor City of Brookings
P.O. Box C
Brookings, Oregon 97415

Mayor
City of Gold Beach
P.O. Box 747
Gold Beach, Or. 97444

Port of Gold Beach
P.O. Box 1126
Gold Beach, Oregon 97444

Mayor City of Port Orford
P.O. Box 310
Port Orford, Oregon 97465

Port of Port Orford
P.O. Box 605
Port Orford, Oregon 97465

Port of Brookings
Port Manager
P.O. Box 848
Brookings, Oregon 97415

SCHOOL DISTRICTS

Brookings School Dist. 17C
P.O. Box 640
Brookings, Oregon 97415

Port Orford-Langlois School District 2CJ
P.O. Box 528
Port Orford, Or. 97465

Upper Chetco School Dist. 23
P.O. Box 1988
Brookings, Or. 97415

Ophir School District 12
Ophir, Oregon 97464

Curry Educational Serv. Dist.
P.O. Box 786
Gold Beach, Oregon 97444

Gold Beach Union High School District No. 1
Gold Beach, Oregon 97444

Agness School Dist. 4
Agness, Oregon 97406

Pistol River School Dist. 16
Pistol River, Or. 97444

Gold Beach School Dist. 3
Sixth Street
Gold beach, Oregon 97444

SPECIAL DISTRICTS:

Sanitary Districts:

Wedderburn Sanitary Dist.
Wedderburn, Or. 97491

Knoxtown Sanitary District
422 Azalea Lane
Gold Beach, Or. 97444

Harbor Sanitary District
P.O. Box 2457
Harbor, Or. 97415

Camelia Park Sanitary Dist.
P.O. Box 1058
Brookings, Or. 97415

Water Districts

Nesika Beach Water Dist.
Rt. 1, Box 114-A
Gold Beach, Or. 97444

Langlois Water Dist.
P.O. Box 116
Langlois, Or. 97450

Hunter Creek Water Dist.
P.O. Box 645
Gold Beach, Or. 97444

Ophir Water District
Rt. 1, Box 66
Gold Beach, Or. 97444

Harbor Rural Water District
P.O. Box 2437
Harbor, Or. 97415

SETTING

2.1 PHYSICAL ASPECTS

2.1.1 Location and Major Geographic Features

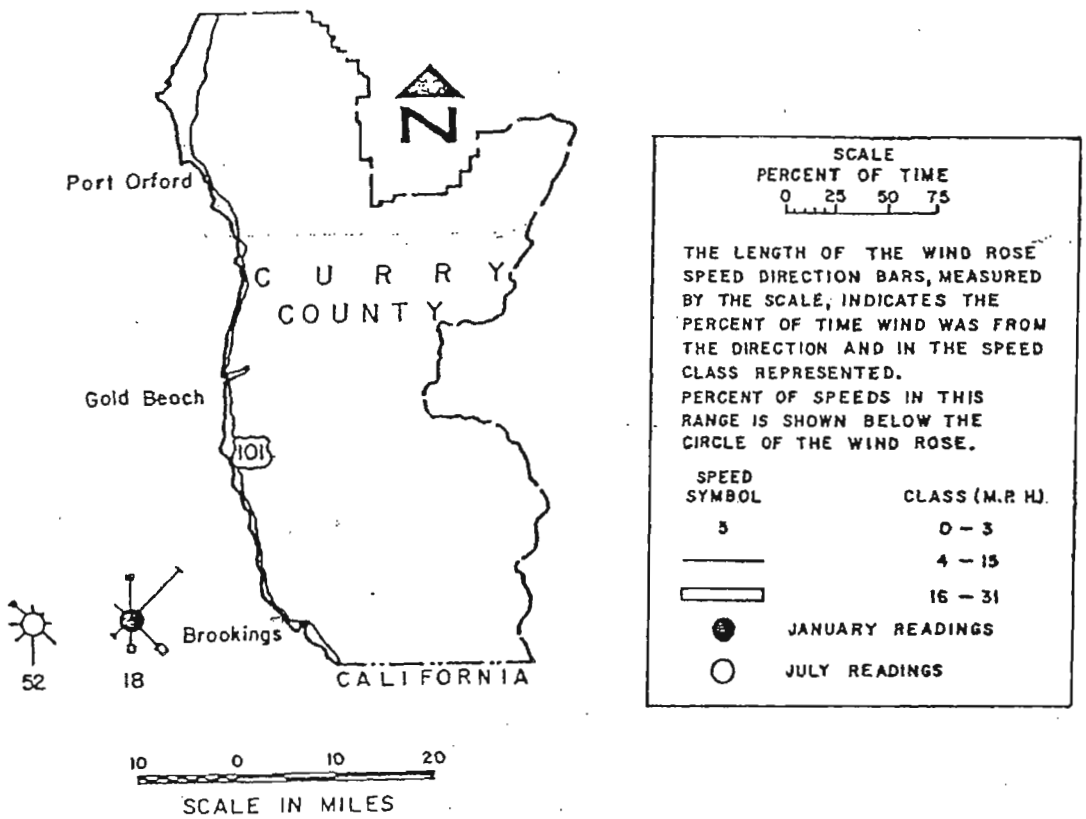
Curry County is located in the southwestern corner of the State of Oregon and entirely within the Klamath Mountain physiographic region. The area of the county is approximately 1664 square miles with a maximum length in a north-south direction of about 66 miles and maximum width in a east-west direction of about 42 miles. Major features of the county include the low one-third of the Rogue River drainage basin, Cape Blanco as the most westerly point of the 48 contiguous states, and the Kalmiopsis Wilderness, a geologically and biologically unique mountainous area in the southeasterly part of the county. Curry County is topographically rugged with steep mountain ridges separated by deep narrow canyons and valleys. Moderate topographic situations exist only along the coastal terraces and along larger river valleys. The only transportation link through the county is U.S. 101 which transects the county in a north-south direction along the coast. Other improved secondary roads penetrate the inland areas of the county along major rivers, however, no improved roads cross the county in an east-west direction. There are three incorporated cities in the county and several unincorporated community centers. The county seat is the City of Gold Beach which is located at the mouth of the Rogue River in the central part of the county on the coast.

2.1.2 Climate

The climate of Curry County is generally moist and mild with respect to temperature. Average annual precipitation ranges from 72.8 inches at Port Orford to 81.4 inches at Brookings and Gold Beach. Temperatures generally range on an annual basis from 65°F. to 40°F. in the coastal areas of the county with the inland areas having greater extremes.

Precipitation is perhaps the most significant single factor in the climatic regime of the county. The following table provides an average monthly indication of rainfall at selected locations within the county. Heaviest rainfall occurs in December and lowest in July for a total average county rainfall figure of approximately 86 inches a year. (see Table 2.1A) It also illustrates coastal precipitation patterns.

WIND DIRECTION IN CURRY COUNTY



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

FIGURE 2.1.B

Elevations range from sea level (0 feet) to 5,312 feet (Brandy Peak) with extremely variable topography. The effect of elevation has a dominant influence over precipitation patterns. In general annual precipitation is lowest along the coast ranging from 60 to 85 inches, (Figure 2.1.A). In the higher elevations of the coastal range, annual precipitation may average 80 to 110 inches.[1] Snowfall in winter generally occurs only inland from the coast at higher elevations and beyond the direct influence of warm offshore ocean currents.

Wind direction data is limited but National Weather Service records indicate that from April through October, there are fairly strong prevailing winds from the northwest averaging about 17 miles per hour, (Figure 2.1B). From November through February winds are predominantly from the northeast and average 15 miles per hour.

Fog occurs in all months, but predominates from October to March. In general, northern Curry County (particularly Cape Blanco) receives more and stronger winds while southern Curry County (particularly Brookings/Harbor) receives more fog.

Overall, Curry County has a humid climate with wet but mild winters and warm summers. Temperature variations year round are extremely minimal with the mean annual temperatures ranging from 52.9°F at Port Orford to 53.4°F at Brookings. Along the coast, mean monthly temperatures range from about 45 degrees in January to 65 degrees in August. Mean daily extreme temperatures range from winter lows of 39°F to summer highs of 67°F in the coastal regions of the county. Inland (depending on elevation) temperature variations are greater and often range from winter lows of 20 degrees to summer highs of 100 degrees. Average growing season for the county is approximately 250 days.[1]

2.1.3 Landforms and Geology

The topography has generally determined the settlement pattern of the county and since most of the county is of mountainous terrain, settlement has historically been confined to the relatively flat areas near the coast. Physiographically and geologically all of Curry County lies within the Klamath Mountain region which is characterized as a high mountain massif that drops off

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[1] O.S.U., 1973

into the ocean as a series of headlands.[1] Land forms of the county are broadly classified as uplands, terraces, and lowland valleys. The mountain ridges and canyons of the eastern part of the county are the uplands and constitute the majority of the county area. Terraces are either wave-cut surfaces along the coast or are the dissected remnants of elevated floodplains along major streams. Coastal terraces are generally less than 200 feet in elevation above sea level and stream terraces are generally less than 50 feet above present day flood plains. Lowlands are those areas lying within the present flood plains, marshes, and beach-dune areas along the coast. Significant lowland areas are located only near the mouth of major streams and rivers along the coast.

Curry County has a relatively complex geologic history which is reflected by the wide variety of rock types present in the county and the extent of their deformation. The geologic bedrock units consist mostly of sandstone, siltstone, various volcanic, and metamorphic (or altered) rocks. These bedrock units range in age from 150 million years to less than 10 million years old. Surficial geologic units consist of semi-consolidated to unconsolidated terrace and lowland deposits which locally overlie the bedrock units. These geologic units are less than 2 million years old with most being less than 100,000 years old.

All but the very youngest of these geologic units have undergone deformation through tectonic geologic processes (faulting folding, etc.) at various times in the past. Much of the deformation by faulting which has caused the fracturing and partial mechanical disintegration of these rock units has been localized both in time and place. A prominent shear zone (area of localized faulting) consisting of sheared bedrock and serpentine is located in the Cape Ferrelo-Carpenterville area. A second shear zone is located in the northern Curry County coastal area and extends from Cape Blanco south through Port Orford to the Humbug Mountain area. Part of this shear zone lies off shore, but where it comes on shore south of Humbug Mountain it is one to two miles wide with intensely fractured rocks. These faults appear to have been active in the distant geologic past and are no threat in terms of earthquake activity; however, the intensely fractured rock in the shear zone presents a significant landslide hazard in the immediate vicinity of the shear zone. Generally due to the diverse rock types in the county and soils derived from these rocks, the deformation of bedrock units

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[1] University of Oregon, 1976

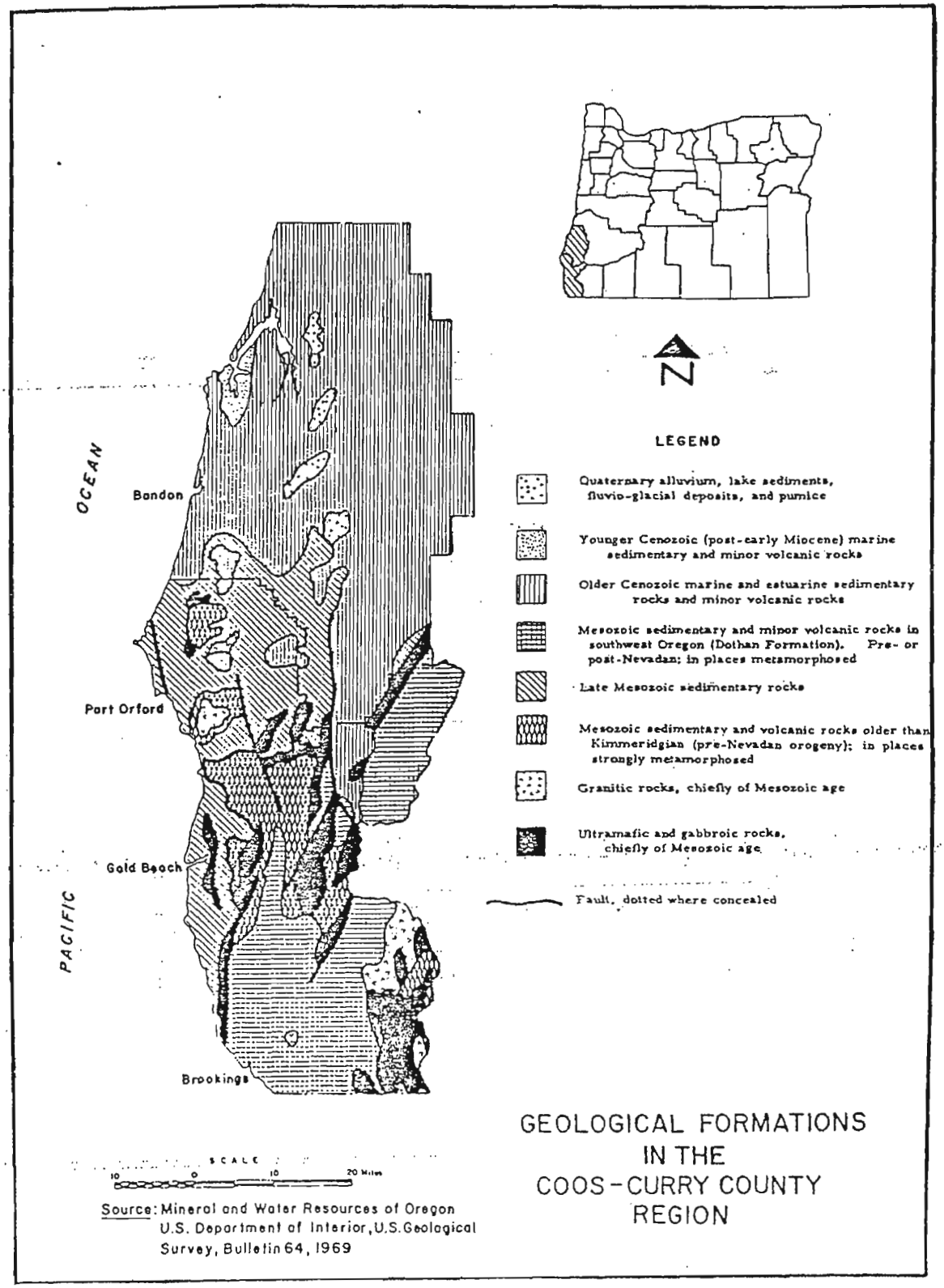
OCEAN
PACIFIC
Bandon
Port Orford
Gold Beach
Brookings
N
LEGEND
Quaternary alluvium, lake sediments, fluvio-glacial deposits, and pumice
Younger Cenozoic (post-early Miocene) marine sedimentary and minor volcanic rocks
Older Cenozoic marine and estuarine sedimentary rocks and minor volcanic rocks
Mesozoic sedimentary and minor volcanic rocks in southwest Oregon (Dothan Formation). Pre- or post-Nevadan; in places metamorphosed
Late Mesozoic sedimentary rocks
Mesozoic sedimentary and volcanic rocks older than Kimmeridgian (pre-Nevadan orogeny); in places strongly metamorphosed
Granitic rocks, chiefly of Mesozoic age
Ultramafic and gabbroic rocks, chiefly of Mesozoic age
Fault, dotted where concealed
SCALE
10 0 10 20 Miles
Source: Mineral and Water Resources of Oregon U.S. Department of Interior, U.S. Geological Survey, Bulletin 64, 1969
GEOLOGICAL FORMATIONS IN THE COOS-CURRY COUNTY REGION

Figure 2.1.C

by geologic processes, the high relief topography, and climate, most areas in Curry County are subject to some form of landslide or unstable soil hazards.

2.2 HISTORICAL BACKGROUND

Curry County was first inhabited by several tribes of coastal Indians who all spoke different dialects of a common Athapascan language. Many villages were located throughout the county, primarily situated at or near the mouths of the county's rivers and major creeks. The majority of these Indians depended upon the ocean for their livelihood and food source. The largest tribes were Qua-to-mas (who lived along the coast from Port Orford to Sixes River) and the Chetco tribe of the Brookings-Harbor area. Although the Indians had various names of their own for all major rivers and creeks, these names were eventually changed with the coming of the white man until the only remaining name given by the Indians was that for the Chetco River.

Although vessels from several countries navigated the waters off the Oregon coast in the late 1700's and the 1800's early explorations were primarily accomplished by the Spanish, and later the English. The earliest known excursion along the southern Oregon coast occurred in 1543 by Bartoleme Ferrelo, a Portuguese pilot for the explorer Cabrillo. Ferrelo is reputed to have sailed as far north as Cape Blanco. In 1603, a Spanish squadron sailed north from Spanish California. After becoming separated in a storm, Viscaino is known to have sailed as far as Cape Sebastian which was named in his honor. D'Aquilar, Flores, and other members of the squadron are supposed to have reached and named Cape Blanco. Floras Lake (altered over time from Flores) was named for Antonio Flores.

Captain Robert Gray of the Royal Navy sailed through Curry waters in 1788 and again in 1792. Gray is the discoverer of the Columbia River. Also in 1792, Captain George Vancouver undertook an exploring/mapping trip along the Oregon coast. On April 5, 1792 Captain approached and named Cape Orford (now known as Port Orford). The name was given to honor George Walpole, the third Earl of Orford, a close friend of Captain Vancouver who had died six months earlier.

The first known land intrusion in Curry County by the white man occurred in 1826 by Hudson Bay Company trappers from Fort Vancouver. Alexander McLeod, a representative for Hudson Bay Company was the first white man to visit the mouth of the Rogue River and did

so in 1827. In June of the next year (1828), Jedediah Smith and a party of 17 trappers passed through the county while on a fur trapping trip north from Spanish California. They were attacked by Indians at the Umpqua River and only four (including Smith) escaped to later reach Fort Vancouver.

Although miners and settlers began to flock into northern California and the Rogue Valley shortly after the California Gold Rush of 1849, the earliest settlement within Curry County was at Port Orford in 1851. William Tichenor, a sea captain who previously transported goods by steamer between San Francisco and the Columbia River, had a desire to initiate a trades settlement along the southern Oregon Coast and then build a supply road inland to settlements in what is now Jackson and Josephine Counties in order to save hauling time versus the inland trail routes. Captain Tichenor chose Port Orford as his settlement location due to the excellent sheltering configuration of the headlands for ships and on June 9, 1851, unloaded nine men as an advance party for the construction of the settlement and commercial depot. Promising to return in twelve days, Tichenor sailed to San Francisco in order to hire additional men for building work. In the meantime, the Qua-to-ma Indians regarded the nine men at Port Orford as intruders and subsequently launched an attack, forcing a stand on what is now called Battle Rock. With only a few firearms and one small cannon, the nine men faced several hundred angry Indians. In the ensuing battle the Indians suffered many casualties and soon withdrew. The nine men, headed by W. H. Kirkpatric, escaped up the coast to white settlements on the lower Umpqua River leaving behind twenty-two dead Indians and one dead Russian renegade.

Tichenor returned with sixty-seven men on July 14, 1851, and set about to build two blockhouses, reported to be the first structures built within Curry County. Army troops arrived by steamer from Astoria on September 3, 1851, and constructed Fort Orford which was initially manned by a detachment of 90 cavalry and artillery regulars under the command of Lt. Colonel Silas Casey. Fort Orford also contained the first hospital to be in use in southwest Oregon.

Parties were sent out from Port Orford in the fall of 1851 to cut a trail as a new trade route connecting with the Oregon Trail. This attempt was to fail and one of the parties became lost near a sugar loaf mountain which they named (in their exasperation) "Tichenor's Humbug." Today the peak is known simply as Humbug Mountain.

Port Orford boasted a sawmill in 1853 (which transported cedar by ship to San Francisco) and also a store. In July of that year, settlers began to migrate into the Chetco Valley (the Harbor Bench) and also farther north to near the mouth of the Rogue River. In the black sand beaches extending for some distance both north and south of the mouth of the Rogue, prospectors discovered gold and soon a rush of miners descended into the area characteristically naming the site Gold Beach. For a time miners were taking as much as $50.00 a day in gold out of the black beach sands.

Later, when Captain Tichenor became more prominently known in the area, the name Gold Beach was changed to Ellensburg in honor of Tichenor's daughter, Ellen. It wasn't until 1890 that this name was rechanged to Gold Beach due to the fact that this location was continually being mistaken with the town by the same name in Washington State.

On the Harbor Bench, twelve men from the midwest came to settle in July of 1853. At that time, the Chetco Indian tribe occupied villages on both sides of the Chetco River. One of the settlers constructed a ferry and public inn adjacent to the Indian village on the south bank. In February of 1853, several militants attacked the south bank village and set fire to it. Shortly thereafter the Chetco Indians took to the warpath and burned several of the settler's homes before the settlers finally made a shaky truce with the Chetcos. Thomas Van Pelt also arranged a peace with the Hosant tribe on the Winchuck River and the settlers of the Harbor Bench were temporarily at peace again with the Indians.

In 1855, a French-Canadian half-breed by the name of Enos came into the area and attempted to stir the Indians into an uprising. This was realized in February of 1856 when the Rogue Indians massacred the male members of the Geisel immigrant family, took Mrs. Geisel and two daughters as temporary prisoners, and murdered Indian agent Ben Wright. This marked the beginning of the Rogue Indian War which included skirmishes at Gold Beach and Pistol River before finally ending with a battle at Big Bend near the confluence of the Rogue and Illinois Rivers on May 17, 1856. After that battle 710 Indians were removed from the County and shipped to reservations at Grand Ronde and Siletz. The instigator of the war, Enos, was subsequently captured in July and later hanged by a lynch mob in Port Orford.

After the Indian war rapid growth was experienced in the county, in particular at Port Orford. By 1857, Port Orford consisted of sixty buildings including one sawmill, three hotels, eight stores, two saloons, one ball (bowling) alley, and fourteen army buildings.

In the 1860's Port Orford's activity declined while settlement increased at the Rogue River mouth. The Rogue River already had a ferry across it in 1857 and in 1863, the plat of Ellensburg was filed and a post office started.

In 1868 a severe forest fire leveled a large portion of the town of Port Orford.

By 1877, R. D. Hume had built a salmon hatchery and cannery in Ellensburg. This hatchery was the first built on the coast in Oregon and the second ever built in the state. The hatchery operated until 1893 when a fire burned down the Hume Cannery. Hume then relocated to the north bank of the Rogue and organized a settlement which he called Wedderburn, named after the Hume ancestral home in Scotland. Wedderburn received a post office in 1895.

In 1881, Frank Langlois and A. H. Thrift started a store in northern Curry County. A post office also started at that time and Frank Langlois became the first postmaster. His name remained with the settlement which developed into the town of Langlois.

By 1890 a wagon road was completed between Coos Bay, Gold Beach and Crescent City. This ended the use of the former Indian and animal trails that for so many years had been the county's only land link with the other towns.

During the 1880's through early 1900's mining was a common profitable past-time in the area. A borax mine operated at Lone Ranch for two years while gold placer operations worked along many beaches and most of the rivers and creeks, particularly the Sixes and Pistol Rivers. Nickel mining occurred along upper Hunter Creek and a sandstone quarry was located at Blacklock Point. Today gravel removal operations from river bars are the primary remaining remnants of a former large mining industry in the area.

Brookings was founded in 1913 as a company town by John Brookings who also constructed a large lumber mill there. A post office was built in 1913 and the lumber mill began operation in 1914. A dock was installed at Chetco Cove, which soon after was used for shipping lumber by steamer. A railroad was also built extending into Del Norte County in California. This was the

county's only railroad and it was subsequently torn out after a depressed lumber market closed the Brookings mill in 1925.

In 1927 Highway 101 was completed providing an all weather transportation route north/south through the county and in 1932 the Rogue River Bridge was completed.

The first electrical service in the county was a private operation at Gold Beach in 1925. In 1940, public electrical service was provided by the first Coos-Curry Cooperative lines.

The 1940's also saw the first lily bulb production occuring on the Harbor Bench. This production has expanded so greatly that at present, 90% of the supply of ornamental lilies in the country are grown in Curry County and neighboring Del Norte County.

World War II saw the construction of a U.S. Navy air transport runway on Cape Blanco which, though little used today, except by sport aircraft, is capable of handling jet aircraft. During 1942 the county was bombed twice by Japanese submarine based floatplanes carrying incendiaries. One of the bombing sites is commemorated at Mount Emily.

Port Orford was the first town to become an incorporated city within the county and did so in 1935. Gold Beach followed in 1945 and Brookings in 1951. That same year (1951) also saw the opening of the countywide hospital in Gold Beach.

2.21 Key Dates in Curry County History

The following are important dates in the history of Curry County:

1543 - First European exploration along Curry Coastline

1603 - Cape Sebastian and Blanco discovered and named by Spanish navigators.

1792 - English mapping of Curry coastline and naming of Cape Orford.

1826 - Trappers for Hudson Bay Company are the first white men in Curry County.

1827 - Alexander McLeod, first white man to reach the mouth of the Rogue River.

1828 - Jedediah Smith and party pass through the length of Curry County while on a trapping trip.

KEY DATES IN CURRY COUNTY HISTORY (continued)

1848 - Oregon Territory created.

1851 - William Tichenor organizes first settlement in Curry County at Port Orford.

1853 - Gold discovered at Gold Beach and miners flock in; Harbor Bench settlement also occurs.

1855 - First post office County at Port Orford; County organized and named for Oregon Territorial Governor George E. Curry.

1856 - Rogue River Indian War lasts from February to May, remaining Indians sent to reservation; first county voting districts organized.

1857 - First Rogue River ferry.

1858 - Gold Beach (then called Ellensburg) becomes county seat.

1859 - Oregon becomes the 33rd State in the Union; Curry and Coos Counties are set up as a Congressional District.

1863 - Ellensburg plat filed and post office begun.

1868 - Large forest fire; most of Port Orford destroyed.

1877 - R. D. Hume Hatchery and cannery started on the Rogue River.

1880 - First newspaper published in the County.

1881 - Town of Langlois and post office established.

1980 - Ellensburg name changed to Gold Beach; wagon road connecting Gold Beach to Coos Bay and Crescent City completed.

1893 - Hume Cannery burned; Hume founds town of Wedderburn.

1895 - Wedderburn post office organized.

1913 - Brookings founded by John Brookings and post office organized.

1925 - First electricity in County at Gold Beach.

1927 - Old U. S. Highway 101 completed.

1935 - Port Orford incorporated.

1940 - Coos-Curry Cooperative electric lines completed in County.

1945 - Gold Beach incorporated.

1951 - Brookings incorporated; Curry General Hospital opened.

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2.3 EXISTING LAND USE

An important aspect of land use in Curry County is the land ownership pattern within the county. Table 2.3.A indicates the ownership of land in the county by broad classes.

TABLE 2.3.A

SUMMARY OF LAND OWNERSHIP

OWNERSHIP	ACREAGE	PERCENT
Federal:	692,224	65
Forest Service	(628,326)	(59)
BLM	(63,898)	(6)
Other Federal	--	(less than 1)
State of Oregon	10,650	1
Local Government	--	less than 1
Private	362,086	34
Timber Corporations	(298,188)	(28)
Other Private Hold.	(63,890)	(6)
TOTAL	1,064,960	100

This pattern of ownership reveals that only about 1/3 of the total land area of the county is in private or local government ownership and therefore is closely governed by the provisions of this plan. The large holdings of the federal government have been included in the planning process for this comprehensive plan largely as open space and forest lands; however, most of these lands have also been involved in a planning process by the agencies that control them.[1]

The single largest land use in Curry County in terms of land area is for forestry. Forestry uses make up approximately 90% of the land area with virtually all of the federal land (65% of land area) being utilized for some form of forest management and about 82% of all private owned land being in forestry use.

[1] U.S. Forest Service (1976) (1979).

The Siskiyou National Forest is the largest single block of forest land in the county and includes most of the eastern two-thirds of the county. Management uses within the National Forest range from wilderness and scenic "set-aside" areas to commercial forest uses and developmental recreational uses. Fringing the national forest to the north and west are commercial forest lands largely in corporation ownership. These lands have historically been in commercial timber production and are presently under forest management.

The second largest land use in the county in terms of land area is for agricultural use. Approximately 1% of the land in Curry County is in agricultural use as cropland for the specific purpose of raising a cash crop of one type or another.[1] The principal cash crops are horticultural crops, cranberries and hay or pasture. An additional 7% of the land in the county is used for agricultural purposes as grazing and rangeland.[1] These areas are primarily in use as sheep and cattle ranches and are primarily located in the coastal area of the county.

The remaining 2% of the county land area is land in non-resource use for residential, commercial, industrial purposes or is occupied by rivers, estuaries or other geographic features which precludes its use for forest, agricultural, or developmental uses. The non-resource uses within the county are concentrated along the coast and in the vicinity of the two main rivers (Rogue River and Chetco River). More specifically, most of the residential and commercial uses in the county are located in the vicinity of the three incorporated cities or the various rural communities. All of these cities and communities with the exception of Agness are located along U.S. 101 as the principal transporation link through the county. Other areas of rural residential use are also located near U.S. 101 or the principal all weather county roads such as Squaw Valley, Jerry's Flat, Cape Ferrelo, Chetco River-Gardiner Ridge and Winchuck River. Industrial sites are also generally located within or near the cities or community areas. Sites that lie outside these areas are existing saw or plywood mill sites or the industrially developed site of a former mill. The comprehensive plan recognizes these industrial sites and retains them as such because of their physical development and suitability for present and future use by the forest products industry or other related uses.

The plan designations and proposed zoning of the comprehensive plan are closely related to the existing

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[1] U.S. Department of Commerce (1980)

land use of the county. In general, the resource designations (forest and agriculture) have been applied to almost all lands within the county and nonresource designations have been applied to less than 2% of all county lands. Table 2.3.B summarizes the area of county land included within each plan designation and corresponding implementing zone districts.

TABLE 2.3.B

GENERALIZED SUMMARY OF PLAN DESIGNATIONS

Plan Designation/Zone	Acreage	Percent
Timber (T, FG-80)	929,500	88.0
Forest - Grazing (FG-40, 20, 10)	93,400	8.8
Agriculture (AFD, EFU)	6,000	.7
Residential (RR-5, 2.5, 1, R-1, R-2)*	15,800	1.5
Commercial (C-1, C-2, RC, RCR)*	600	-
Industrial (M-1)*	300	-
Special Use Lands (MA, CON, PF)*	11,100	1.0
Total	1,056,700	100%

* Excluding Incorporated Cities and their UGA (about 8300 ac.)

Comparison of the distribution of comprehensive plan designations by land area to land ownership data and existing land use information shows that the comprehensive plan follows the existing land use pattern of the county. This data also shows that the comprehensive plan designates all but 1.5% of the total land area of the county to resource uses (See Comprehensive Plan Map). Basically the comprehensive plan recognizes that Curry County has historically been a natural resource area and for the planning period involved in this plan will continue to be committed to those land uses.

3. AGRICULTURAL LANDS

3.1 INTRODUCTION

Agricultural land is important to Curry County in several respects; it provides a significant contribution to the overall economic structure of the county, it provides much of the open space areas in the county, and the aesthetically pleasing nature of farm lands add to the scenic beauty of the county. In terms of economic importance measured by gross value of resource products, agriculture ranks second behind forest products and greater than the fishery or mineral industry. The State of Oregon has also recognized the importance of these lands and through the provisions of the Statewide Planning Goals and Guidelines has required that agricultural lands be preserved and maintained for farm use.

Statewide Planning Goal 3 specifically requires that "These lands shall be inventoried and preserved by adopting exclusive farm use zoned pursuant to ORS Chapter 215. Such minimum lot sizes are utilized for any farm use shall be appropriate for continuation of the existing commercial agricultural enterprise of the area. Conversion of rural agricultural land to urbanizable land shall be based upon consideration of the following factors: 1) environmental, energy, social, and economic consequences; 2) demonstrated need consistent with LCDC Goals; 3) unavailability of an alternative suitable location for the requested use; 4) compatibility of the proposed use with related agricultural land; and 5) the retention of Class I, II, III, and IV soils in farm use."

The purpose of this section of the plan is to adequately identify those lands in Curry County which are important to agriculture in the county and to meet the requirements of LCDC Goal 3. Part of this section of the plan is an inventory map (See Agricultural Lands Map, Inventory Map Atlas) which shows the location of all SCS Class I-IV soil types in the county, SCS Class VIw soil which is suitable for growing cranberries and other grazing lands. The plan also provides an assessment of the historical background of agriculture in the county, the typical agricultural practices, agricultural income and economic structure, a rationale for land use designations on agricultural lands, and policies regarding agricultural lands.

3.2 AGRICULTURAL LAND DEFINITIONS

Various definitions have been developed for agricultural lands which are designed to specify certain aspects and properties of these lands.

The U.S. Department of Agriculture in the Secretary's Memorandum No. 1827, developed the following definitions of agricultural land:

1) Prime Farmlands:
Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these (the land could be cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water).

2) Unique Farmland:
Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops are horticulture crops including citrus, tree nuts, olives, cranberries, fruit, and vegetables.

3) Additional farmland of statewide importance:
This is land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage and oilseed crops. Criteria for defining and delineating this land are to be determined by the appropriate state agency or agencies.

4) Additional farmland of local importance:

In some areas, there is concern for certain additional farmlands for the production of food, feed, fiber, forage and oilseed crops, even though these lands are not identified as having national or statewide importance. Where appropriate, these lands are to be identified by the local agency or agencies concerned.

The State of Oregon defines agricultural land in a number of ways depending upon the agency involved.

The Oregon Department of Fish and Wildlife defines agricultural lands as follows:

> Agricultural lands-are lands not less than 10 acres in extent that have been cultivated and planted to domestic crops that are currently in use. Isolated home gardens, abandoned farmsteads, logged lands and tree farms are not included in this definition.[1]

The Oregon Department of Revenue defines agricultural farm units as follows:

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[1] Oregon Department of Fish and Wildlife (1981) "Game Mammal General Regulations" 8 p.

1) If the farm unit consists of less than five acres the gross income shall be at least $500;

2) If the farm unit consists of five acres but does not consist of more than 20 acres the gross income shall be at least equal to the product of $100 times the number of acres and any fraction of an acre of land included;

3) If the farm unit consists of more than 20 acres, the gross income shall be at least $2000.[1]

However Oregon redefines "farm use" under ORS 215.203 to simply state that farm is the current employment of the land for the purpose of obtaining a profit in money by agricultural use without setting a standard in terms of dollar amount of profit. This redefinition of farming essentially removes the economic relationship between farming as an endeavor and agricultural land.

Finally, the Oregon Land Conservation and Development Commission's definition is as follows:

Agricultural Land - in western Oregon is land of predominantly Class I, II, III, and IV soils and in eastern Oregon is land of predominantly Class I, II, III, IV, V, and VI soils as identified in the Soil Capacity Classification System of the United States Soil Conservation Service, and other lands which are suitable for farm use taking into consideration soil fertility, suitability for grazing, climatic conditions, existing and future availability of water for farm irrigation purposes, existing land use patterns, technology and energy inputs required or accepted farming practices. Land in other classes which are necessary to permit farm practices to be undertaken on adjacent or nearby lands, shall be included as agricultural land in any event. More detailed soil data to define agricultural land may be utilized by local governments as such data permits achievement of this goal.

This definition is related to the physical characteristics of the soil, soil fertility, climate conditions and availability of water to make it suitable for producing food, forage, fiber, and other crops. The county has identified these lands on a map (See Agricultural Land Map Inventory Map Atlas) at a scale of one inch equal to one mile utilizing the definitions of agricultural land given by the State of Oregon Statewide Planning Goal 3 Agricultural Lands.

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[1]ORS Chapter 308.372

3.2.1 Soil Types

The most important factor in the inventory of agricultural lands is the mapping of high capability soil types. Soil types have been defined and mapped in the coastal parts of Curry County by the U.S. Department of Agriculture, Soil Conservation Service[1]. This soil survey of the county defines the different soils as 44 individual soil types. There are 24 soil types which are classified as being of soil capability Class I-IV and suitable for agricultural use. In addition, the Blacklock fine sandy loam soil type which is class VIw has been mapped as agricultural land because of its unique capability for producing cranberries under special management. Other areas which are utilized for grazing have been mapped as agricultural land because of their utilization for pasture. Generally these soils are of the Orford series and have capabilities less than Class IV due to the high slopes of the hillside pastures.

3.2.2 Agricultural Soil Distribution

The twenty soil series which have been defined are found in eight general associations of which five have agricultural land significance in the county. These soil associations are:

1. Blacklock - Netarts Association:[1] this soil association is of agricultural significance because cranberries are grown on the Blacklock soils.

2. Langlois - Chetco - Bayside Association:[1] This soil association is of agricultural significance because all of the soils in this association have moderate to high potential for producing forage and provide good pasture for cattle.

3. Knappa - Ferrelo - Blacklock Association:[1] this soil association is important in the county for farming on gently sloping soils which are used for cultivated crops and such row crops as lily bulbs.

4. Knappa - Winchuck Association:[1] this soil association is possibly the most productive in the county with almost all the lily bulbs and horticultural crops of the county being grown on these soils in the coastal area.

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[1] Soil Conservation Service USDA (1970)

5. Riverwash - Nehalem - Gardiner Association:[1] This association is found on level flood plains adjacent to major drainage way; these soils have high potential for cultivated crops, row crops, specialty crops, and grasses and legumes grown for pasture with many of the soils in this association are being used for dairy farm pastures.

3.2.3 Climatic Factors

The agricultural lands of Curry County are located almost exclusively along the coast and in the flat bottom land of the inland river valleys. This distribution of agricultural land is primarily the result of the topography of the county and its climate. Topographically, the land increases in elevation away from the ocean with the crest of the Coast Mountain Range generally being less than 15 miles from the ocean.

The coastal areas of the county have a marine climate with the ocean warming the air flowing over it in winter and cooling it in summer so that temperatures are mild throughout the year. Relative humidity, however, is high and seldom drops below 65%. Annual precipitation averages between 75-80 inches along the coast, but increases to more than 100 inches on the upper slopes of the mountains. In summer, the land heats more rapidly than the ocean and the inland valleys are somewhat drier and warmer during the day than on the coast. Climatic information helps define agricultural lands more specifically in that the intensity and amount of rainfall, temperature variations, wind, cloudiness and sunshine all have an effect on the agricultural use of the land.

Climatic factors which affect agricultural uses generally limit these uses to the coastal area and the inland valleys. Most of the rainfalls during a period from November through March with the months of June, July and August being dry along the coast. January is generally the coldest month and August is the warmest with an annual temperature range fluctuation being only 5-20 degrees. The growing season for the coastal areas of the county is 6 to 7 months; however, the higher the elevation the shorter the growing season.

Wind is also a factor for agricultural use in the county since most agricultural uses are located on the open coast. The wind normally blows from the north during the summer growing season with sufficient velocity to limit the aerial application of pesticides and fertilizer. Peak wind velocities of 60-100 miles per hour

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[1] Soil Conservation Service USDA (1970)

occur a few times a year and can cause crop damage to exposed fields. The availability of sunshine is also a significant factor with most of the sunshine coming during the summer months; whereas, the winter months receive only 20% of the peak summer radiation.

3.2.4 Irrigation

Although the agricultural areas of the county receive significant amount of precipitation during the fall, winter, and spring; there is still a problem with water during the dry summer. Agricultural uses are often limited because of a lack of sufficient water during the summer months. Irrigation of croplands and pasture can increase production significantly and is essential for many types of agriculture in the county (i.e. horticultural crops and cranberries). At present irrigation is utilized on bottom land pastures adjacent to the larger streams and on the Harbor Bench where a significant amount of groundwater is available. There are water rights available on all streams in the county so that irrigation is available virtually anywhere in the county. However, many streams in the county are seasonal and all streams are subject to low flows during the summer so that irrigation water may not be available for the more recent water rights. The Agricultural Census of the county indicates that the number of acres of irrigated land in the county has increased from 2752 acres in 1969 to 4087 in 1978. This data would suggest that the use of irrigation is increasing by 5% per year (U.S. Dept. of Commerce, 1980). The possibility of a dramatic increase in agricultural production in the county through the expanded use of irrigation is remote due to the limited availability of water where it is needed and the high cost of irrigation equipment and energy.

3.2.5 Agricultural Problems

The introduction of certain plants into the southern coastal region of Oregon has created problems for the cattle, horse, dairy and sheep agricultural enterprises of the county. Tansy ragwort is a nuisance plant that causes death to cattle and horses and is a severe competitor with the desirable grasses and legumes on range and pasture land. The seed of Tansy ragwort reportedly came to this area in ship ballast from Europe. The natural enemies of the weed were not present in this area so it rapidly encroached over prime pasture and rangeland in western Oregon[1].

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[1] Curry County Extension Office (1980)

Since the 1950's a serious effort has been started to control the weed using mechanical and chemical methods. In 1965 the first Cinnabar moths, a natural predator of the weed, were brought to Curry County and released to help alleviate the problem. The Tansy ragwort flea beetle, another insect enemy of the weed, was released in the county in 1975 to further expand the natural control methods. Utilization of all these natural methods is having some impact on the problem with the eradication and control of the weed in a few areas although complete control is a long way off.

Gorse is another plant which has been introduced into the southern coastal area and created a problem with the utilization of agricultural lands. The gorse plant was apparently brought to the community of Bandon in Coos County during the last century as a landscape plant. The plant found the climatic and soil conditions nearly ideal and has gradually expanded its range from southern Coos County into Curry County. Gorse is an intensely competitive plant which can effectively take over an area and transform it into a dense ground-covering brushfield. The thorny plant is very difficult to remove and control mechanically. The extremely combustible nature of the plant make the gorsefields a fire hazard to agricultural and timber lands. Within Curry County extensive gorse fields have developed in the Elk River-Port Orford area taking over agricultural use of pasture land. Presently, control of gorse has been limited to mechanical removal, burning, and some application of chemicals with only limited success.

Sheep ranching, in addition to having the above problems with nuisance weeds, also has a problem with predatory wildlife. Coyotes are a serious problem for livestock raising, particularly with sheep, although cougars, bobcats, and bear also add to livestock losses. In the early 1900's coyotes were not common and were not a problem with livestock grazing.[1] The expansion of sheep ranching during this century has resulted in the numbers of coyote increasing to the point where losses have become a severe problem in some parts of the county. Predator losses are still increasing at present, although, many ranchers are attempting to control them with electric and other types of predator fencing.[2]

Curry County also supports a predator trapping program to help ranchers with this problem. Domesticated and feral dogs loose in agricultural areas often add to the natural predator problem and is most prevelant near populated areas.

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[1] Schroeder (1974)

[2] Curry County Extension office (1980)

3.3 HISTORICAL OVERVIEW OF COUNTY AGRICULTURE[1]

The first settlers in Curry County actually came in search of gold but the gold seekers also needed food so a local agriculture soon developed. Miners originally lived off the land and utilized those supplies that could be brought in by ship; but as the more permanent settlers arrived so did cattle, hogs, and horses and farming was begun in the county. Animal husbandry in the county began in 1851 when Captain Tichenor brought six horses and some swine to Port Orford. John Giesel settled on the coast at a point seven miles north of Gold Beach and raised livestock as the first ranching operation in the county. However, this operation was effectively ended during the Rogue Indian War of 1856.

The year-round pasture and mild climate of Curry County encouraged livestock production so that by 1880 there were over 22,000 sheep, 4000 cattle and 800 hogs in the county. Newspaper accounts of that era indicate that agriculture was flourishing in most parts of the county from Langlois to the Chetco River valley. The County Treasurer in 1898 described the agricultural enterprise of Curry County in very enthusiastic terms as "50,000 acres in hay pasture, production of 1200 bushels of wheat, 300,000 pounds of butter and cheese, 500 pounds of tobacco, 30,000 bushels of potatoes, 20,000 bushels of apples, 6000 bushels of plums, 235,000 pounds of wool, 25,500 sheep, 3,000 hogs, and 10,000 cattle." At that time the principal agricultural enterprise was dairying and the county supported several fine creameries. Most of the livestock production at this time was from the rich bottom land pastures along the major rivers and from native prairies near the coast and in the coastal hills.

In the early 1920's Easter lilies were introduced into the southern Oregon coast area and rapidly expanded in Curry County as a cash crop during World War II. At peak production in 1947, over 600 farmers grew bulbs then production began to decline and by 1960 production dropped to only 40 growers with production on 250 acres. However, in recent years, bulb farming has become more mechanized and production is as high as in the earlier peak years. Easter lilies are the major contributor to the agricultural cash crop of the county at present. The lily bulb industry continues to grow and is improving itself with the development of new varieties of lilies and extension of marketing systems.

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[1] Schroeder (1978)

3.4 AGRICULTURAL PRACTICES IN CURRY COUNTY

The Curry County Farm Marketing Summary indicates that the agricultural income of the county is almost equally divided between animal products (55%) and cash crops (45%) with a total farm gate income of about 6.5 million dollars. The two major contributions to the agricultural income of the county are beef cattle (1.7 million) and Easter lilies (1.5 million) accounting for almost one-half of the total product.[1] Table 3.4A summarizes the county agricultural income for the years 1977-1980 and indicates the principal sources of this income.

Approximately 95% of the agricultural income of the county is derived from the following types of farm operations:

1. Beef cattle ranching
2. Easter lily bulb farming
3. Sheep ranching
4. Dairying
5. Farm forest products
6. Nursery crops (Hydrangeas, fuscias, etc.)
7. Cranberry bogs

These farm operations can also be defined in terms of specific farm types for planning purposes.

For purposes of this inventory the following farm types are described: cattle ranches, sheep ranches, dairys, horticultural crop farms, and cranberry bogs.

3.4.1 Cattle Ranching

Cattle ranching is a form of livestock production which is carried on throughout the county on various types of agricultural land. The total beef production of the county comes from several sources ranging from small intensive ranching farms 10-40 acres up to large cattle ranching operations of several hundred acres which specialize in a certain breeding stock. A significant part of the beef production also comes from the dairy farms which market the calves resulting from breeding of dairy cows.

The 1978 Census of Agriculture for Curry County[2] indicates that most of the cattle production in the county comes from farms that stock between 20 and 99 head of cattle with only one farm in the county stocking over 500 head of cattle.

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[1] Curry County Extension Office (1980)

[2] U.S. Department of Commerce (1980)

TABLE 3.4A

CURRY COUNTY AGRICULTURAL INCOME[1]

Curry County Farm Marketing Summary - 1977, 1978, 1979 and 1980

Estimates are based on agricultural census and other data by Extension Specialist in County Statistics and the Curry County Extension Agent.

All figures rounded to nearest thousand.

	1977	1978	1979	1980
Animal Products			Revised	Preliminary
Beef	$ 853,000	$ 1,527,000	$ 1,953,000	$ 1,722,000
Dairy (Milk & Cream)	1,155,000	754,000	776,000	142,000
Sheep & Wool	595,000	744,000	1,031,000	958,000
Poultry	4,000	2,000	2,000	5,000
Swine	15,000	19,000	17,000	18,000
Horses	10,000	15,000	20,000	25,000
Other (Ducks, geese, rabbits and mohair)	6,000	6,000	12,000	33,000
Honey & Bees wax	2,000	1,000	1,000	1,000
Animal Products Sub-Total	2,640,000	3,068,000	3,812,000	3,604,000
Percent of Total	*55.0*	*53.7*	*55.4*	*55.0*
Cash Crops				
Easter lilies	1,100,000	1,250,000	1,400,000	1,500,000
Cranberries	92,000	189,000	173,000	193,000
Nursery crops (Hydrangeas, fuchsias, azaleas, etc.)	160,000	200,000	400,000	410,000
Other Horticultural Crops (Tree fruits, small fruits, and vegetables)	34,000	50,000	33,000	34,000
Farm Forest Products	730,000	930,000	1,030,000	780,000
Hay	48,000	27,000	28,000	40,000
Cash Crops Sub-Total	2,164,000	2,646,000	3,064,000	2,957,000
Percent of Total	*45.0*	*46.0*	*44.6*	*45.0*
Total Estimated Agricultural Income	$4,804,000	$5,714,000	$6,876,000	$6,561,000

Figures given are "farm gate" or gross sales receipts and do not take into consideration other income including transportation, processing, etc., after the product leaves the farm.

[1]Curry County Extension Office (1980)

This inventory also indicates that about one-half of the total cattle sold come from farms stocking less than 100 head of cattle. Therefore, it appears that most of the county beef production comes from relatively small farms that are most likely to be part-time agricultural operations which utilize the farm income to augment other sources of family income.

The County Extension Service has evaluated beef production as a full-time agricultural occupation for this area and prepared a data profile of the general requirements to establish a cattle ranch. This profile assumes that it would require 1200 acres of suitable land complete with buildings, 200 cows and 8 bulls, and that the farm family provide all labor toward the operation.[1]

The land requirements for cattle ranching in Curry County are not overly demanding in terms of agricultural productivity since cattle are being grazed on open land of relatively low capability class. In general, any land in the county which has sufficient open area to allow cattle has been used for cattle ranching. Historically the open prairies of the forest were used for grazing and have continued as such; in addition, areas which were logged and not replanted are now used for grazing. However, beef production per acre in the county has been drammatically increased by using the more productive soil types and pasture management programs. Pasture irrigation as part of the management program will also increase production per acre if the economics of the farm operation justify the investment. At present most of the cattle ranching operations in the county are simply grazing situations with little pasture management involved; however, a few notable exceptions have demonstrated that intensive management of the more productive soils, combined with high quality stock, can also be a viable farm unit.

3.4.2 Sheep Ranching

Sheep ranching is another form of livestock production which is done throughout the county but is most prevalent in the northern and central parts of the county. Sheep and wool production in the county comes from farm operations ranging from small flocks of a dozen sheep or less to large corporation ranches which have large flocks of many thousands of sheep. There is little correlation between sheep and wool production and farm parcel size since flocks can be successfully raised on pasture land of almost any size, and in fact, many of the larger ranching operations are actually made up of many small non-contiguous parcels.

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[1] Oregon State University Extension Service (1974)

The 1978 Census of Agriculture for Curry County does not indicate specific data for sheep ranches by size of inventory so that only general assumptions can be made from the total count of livestock. In 1978 there were 19,882 sheep and lambs on 67 farms which suggests an average flock size of about 300 animals.[1]

The County Extension Service has evaluated sheep production as a full-time agricultural occupation for this area and prepared a data profile of the general requirements to establish a sheep ranch. This profile assumes it would require 1500 acres of suitable land complete with buildings, 1000 ewes, and that most of the labor would be provided by the operator, although additional part-time help may be necessary.[2]

The land requirements for sheep ranching are similar to those described above for cattle ranching and primarily involve open space for pasture. The Extension Service sheep ranch profile indicates the land requirements should include 800 acres of improved subclover pasture and 700 acres of unimproved pasture. Most of the sheep ranching in the county has been done on improved pasture. In recent years there has been a trend toward more sophisticated management for sheep which includes reseeding, scheduled fertilization and irrigation of both bottom land and hillside pastures. These management techniques have increased livestock production and allowed viable farming operations on smaller parcels.

3.4.3. Dairying

Dairy farming has historically been a significant part of the total agricultural production of Curry County; however, over the years it has become less important with changes in the economics of dairying operations and product marketing. The 1978 Census of Agriculture for Curry County (U.S. Dept. of Commerce, 1980) indicates that ten farms produced the entire dairy production for the county with eight of the ten producing $2500 or more per year.[3] This type of farm operation has been in steady decline since the late 1800's when the county had numerous dairies and creameries.

Dairying was, at one time, found throughout the county with most farms being located on bottom land pastures near the major stream drainages. The remaining larger dairy farms are located in the northern part of the county and utilize bottom lands located along Floras

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[1] & [3] U.S. Dept. of Commerce (1980)

[2] OSU Extension Service (1970)

Creek, Sixes River and Elk River for pasture. Generally, dairy pastures are located on the more productive soils which respond to intensive management and irrigation. Specific land requirements for dairy farms are difficult to establish because much of the husbandry of dairy cows is done by prepared feed so that pasturing of cows is not, necessarily, related to feed requirements.

The agricultural census data indicates that the average dairy farm stocks about 32 cows but no information is available about the average farm size.[1] However, information from the Oregon State University Extension Service, dairy production data profile for this area indicate that the average dairy operation consists of 75-100 milk cows. Neither of these sources specify a farm size but indicate the food requirements for a herd. Thus a dairy can be a feed lot operation and not necessarily be located on agricultural land, however, in this county dairies have historically been pasture land farms and now average about 20-60 acres in size.

3.4.4 Horticultural Crop Farms

Horticultural field crops, including Easter lily bulbs, is a type of crop farming which is rare in Oregon and done only in Curry County on a significant scale. Easter lily production was originally attempted throughout the coastal area of the county but as competition and experience with this type of farming developed it gradually became limited to the Harbor Bench area south of Brookings. The Harbor Bench has the unique combination of soil and climatic conditions as well as groundwater availability which allow for the field production of horticultural crops. This set of factors qualifies the Harbor Bench area as "unique farmland" under the U.S. Department of Agriculture classification system. The County Extension agent estimated that 70% of the 672 acres of undeveloped lands on the Harbor Bench is farmed in lilies. Approximately 15% in grazing and the remaining 15% is in miscellaneous crops, including the largest hydrangea nursery in the United States.[2]

Lily bulb cultivation is a very intensive type of farming which requires careful crop management in cultivation, fertilization, pest control, and irrigation. As part of the management program, fields must be kept in a rotation plan which allows each field used for lily production to be kept fallow under a cover crop following crop production. Thus the land requirement for lily bulb production must have an allowance for field rotation.

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[1] U.S. Department of Commerce (1980)

[2] CCD Economic Improvement Association (1977)

Many lily bulb farmers lease and own non-contiguous parcels of varying size to use as a commercial farm unit. Lily bulb and horticultural crop farming is the most productive type of farming in the county with farm gate profits of $3200 per acre being reported.[1]

3.4.5 Cranberry Production

Cranberries are presently grown in a limited area of northern Curry County which has soils suitable for this type of farming. The production of cranberries in the county is limited to the Blacklock soil series because of the low permeability of the subsoil which allows the construction of cranberry "bogs" or fields which are capable of being flooded to allow for a water harvest of the crop. The establishment of a productive cranberry bog is a lengthy process involving a one year establishment process and a five year pre-production period prior to any actual production of the crop. In addition, the production of cranberries is a very intensive type of farm operation requiring pruning of plants, weed control, application of pesticides and fertilizer, irrigation and maintenance of bog dikes and roads.[2]

The capital outlay to establish cranberry bogs and the intensive nature of the farm operation have limited the expansion of this farm type in the county. Cranberries grown in this area are in market competition with those grown on a much larger scale in the midwest and eastern states. However, they can successfully compete only because of the higher quality of the product grown here relative to those grown elsewhere.

There are presently about 48 acres of cranberry bogs in Curry County all of which are located in 27 individual bogs adjacent to the Cape Blanco Airport north of Port Orford.[3] Most of these bogs are operated in five to ten acre tracts of contiguous individual bogs as a single unit. Although individual cranberry bogs may be established on almost any size parcel with suitable soil, the OSU Extension Service has developed a farm enterprise data profile for commercial cranberry production utilizing ten acres of bogs. The agricultural census for Curry County indicates that there is 48 acres of berries under cultivation in the county as six separate farms with an average berry farm being about eight acres in size.

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[1] Curry County Extension (1980)

[2] OSU Extension Service (1965)

[3] Staff calculations from 1979 aerial photographs

3.4.6 Distribution of Agricultural Uses

Certain agricultural uses and farm types are found throughout the coastal area of the county; whereas, other types of farming are limited to specific sites due to limitations of climate and soil. Generally sheep and cattle ranching are carried out on any land in the county that is capable of being used as pasture with livestock production being increased as pasture management becomes more intensive. Sheep ranching in northern Curry County utilizes both unimproved and improved hill pasture, improved pastures on relatively flat terrace lands and irrigated bottom land pastures in the river valleys. However, sheep and cattle ranching in central and southern parts of the county are primarily carried out on hill pasture land.

Dairy farming can also be carried out in essentially any part of the county if the dairy is operated as a feed lot utilizing commercial feeds. Historically, dairy farming in this area has utilized pasture for at least part of the stock feeding requirements and in most cases dairy farms have utilized the more productive bottom land pastures located adjacent to the major stream drainages. Presently most of the dairy farms in the county are located on this type of agricultural land in the northern part of the county.

In the past horticultural crops were grown in most coastal areas of the county but over the years, with one exception, this type of farming has become limited to the Harbor Bench. The specialized requirements of this type of farming can only be achieved in this area where the soil and climatic conditions permit the field cultivation of Easter lilies, hydrangeas, etc. This area of the county appears to meet the definition of "unique farmland" because of the special combination of factors which allow the economically viable horticultural farm industry.

Cranberry cultivation in the county is limited to a specific area in northern Curry County which has a soil type suitable for this crop (See Agricultural Lands Map Inventory Map Atlas). At present, only a small percentage of this area is under cultivation with cranberries and any future development of these farming types confined to the same general area.

The 1978 Census of Agriculture for Curry County provides a general inventory of farms in the county be size. The statistical average size of all farms in the county is 504 acres with a modal farm size of about 200 acres based on the census categorization of farm size.

TABLE 3.4.B

FARM SIZE IN CURRY COUNTY

	1974	1978
Number of farms	164	162
Land in farms	99,046 ac.	81,691 ac.
Ave. size in farms	604	504 ac.
Size of farms		
Less than 10 ac.	18	16
10 - 49 ac.	36	27
50 - 179 ac.	29	34
180 - 499 ac.	33	39
500 - 999 ac.	18	17
1000 - 1999 ac.	14	18
2000 or more	16	11

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

The above inventory of farms by size is a general summary of all farms in the county and is not related to specific farm types identified by actual farm practices.

The 1978 Agricultural Census of Curry County provides some data regarding farm organization in the county. As of the date of that census there were 162 commercial farms in the county, of these 125 were individual or family owned, 25 were partnership farms, 10 were family-held corporation farms, and 2 were owned by cooperatives, estates or trusts.[1] Thus it can easily be seen that the vast majority of the commercial farms in the county are owned by individuals.

This census also provides information with regard to how the commercial farms are operated. The census shows that of the 162 farms, 108 are owner operated, 39 are part owner operated and 15 are tenant operated.[1] The census also indicates whether the farmer works off the farm at another job with the following information: 87 farmers reported working some days off the farm and 68 farmers working over 100 days per year at another job.[1] This would suggest that commercial farming in the

[1] U.S. Department of Commerce (1980)

county is primarily an owner-operated type of organization, however, in all but 7 of the farm operators reporting to the Agricultural Census the farmer worked some time at another job.[1] This type of organization would bring to mind the question of whether the farm supports the individual or does the outside income provided by the individual support the farm.

The Agricultural Census data does not provide information which indicates farm organization by farm type so that the problems of organization in relation to actual farm practices is not fully documented. Nevertheless, certain assumptions can be made about farm organization and types of farming from the nature of specific farm practices. For instance, dairying, cranberry production and horticultural crop farming are such specialized, labor intensive farm operations that it is more likely that these farms will be owner-operated and on a full-time basis. Sheep and cattle ranches, on the other hand, are primarily grazing operations which are labor intensive for only brief periods of time when the animals are to be sheared, treated or marketed. These farm types readily lend themselves to part-time and even non-resident operations. Many ranching operations are approaching a "break even" situation in terms of profit, so that the outside income to the individual or family is essential to maintaining the farm in agricultural production.

3.5 AGRICULTURAL INCOME

The economic structure of the county has been described by employment as follows in Table 3.5.A.

As can be seen, agricultural products are only about 3.4% of the total economy of the county when measured by employment.[2] Employment projections for the county show that the agricultural sector of the economy will probably drop to less than 2.5% during the next 20 years. This decline is related to the projected decline in the agricultural sector for the whole region. Although employment in the agricultural sector has been falling, both absolutely and relatively, real agricultural output has risen as can be attested to by the increase in gross farm sales.

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[1] U.S. Department of Commerce (1980)

[2] CCD Economic Improvement Association (1980)

TABLE 3.5.A

ECONOMIC STRUCTURE BY EMPLOYMENT, 1979

	Number	Percent
Total Employment	5870	100
Self-employed, agriculture and miscellaneous	1120	19.1
Agriculture	200	3.4
Self-employed	920	15.7
Non-agricultural Wage and Salary	4750	80.9
Manufacturing	1360	23.1
Lumber products	1110	18.9
Food products	120	2.0
Other	130	2.2
Non-manufacturing	3390	57.8
Construction	170	2.9
Transporation	190	3.3
Trade	970	16.5
Finance and Real Estate	210	3.6
Service	540	9.2
Government	1310	22.3

TABLE 3.5.B

CHANGE IN FARM SALES

Gross Farm Sales 1971	$2,816,000
Gross Farm Sales 1976	4,648,000
Gross Farm Sales 1978	5,714,000
Gross Farm Sales 1980	6,561,000
Nominal Increase	133%
Annual Increase	15%
Approximate Real Increase	69%
Annual Real Increase	7%

Source: Oregon State University Extension Economic Information, U.S. Dept. of Agriculture Statistics and CCD Economic Improvement Association

When the economic structure of the county is defined in terms of the value of the raw material or product produced in the county, agriculture assumes a greater significance than is demonstrated by employment.

TABLE 3.5.C

GROSS VALUE OF RESOURCE PRODUCT, CURRY COUNTY

1975-76

Agriculture	$ 4,500,000	14%
Logs (@ $150/m bd ft)	23,500,000	75%
Fish Catch	1,900,000	6%
Mineral product	1,600,000	5%
	$31,500,000	100%

Source: CCD Economic Improvement Association Comprehensive Economic Development Strategy, 1980

The above information indicates the importance of agricultural income to the overall economy of the county in terms of employment and value of product produced. As can be seen, the contribution of agriculture is greatly overshadowed by that of the forest products industry and is only 25% greater than that of the fishery and mineral industry combined.

3.5.1 Historical Trend of Agricultural Income

The historical overview of agriculture in the county suggests that farming and ranching were of much greater relative importance to the economy of the county in the past than at present. This is especially true of the dairies and food crop farming which was the principal source of food to local consumers. Dramatic changes in the nature of agricultural production in the county occurred when transportation lanes were opened with the construction of the coast highway. Once food and dairy products could be supplied to the county from the more productive farming districts in other parts of the state, locally grown produce was no longer competitive and such farming no longer profitable.

The declining importance of agriculture as a source of employment is reflected in the employment data for the county which shows that agricultural employment has declined from 220 to 200 during the period from 1972 to 1979. Further evidence of the decline of agriculture use in the county is shown in the decrease in the number of farms from 164 in 1974 to 162 in 1978 reflecting a 15,024 acre decrease in land use for farming.[1] This decrease can be attributed to several factors including changes in census reporting, changes in land use mandated by the state related to tidelands and oceanic waterways, poor economic conditions for agriculture, as well as, encroachment of development onto agricultural lands. The Agricultural Census also indicates that the average size of a farm in Curry County has decreased by approximately 100 acres between 1974 and 1978. However, there has been a real increase in gross farm sales in the county over this same period of time (See Table 3.5.B). This information would lead to the conclusion that the agricultural sector of the county is producing more product from fewer, smaller, and more efficient farming operations.

3.6 SUMMARY OF INVENTORY DATA

3.6.1 Present Status of Agriculture in the County

Agriculture in Curry County is summarized as follows:

1. The agricultural sector of the county economy amounts to about 3% of the total by employment and about 14% of the total resource product of the county.

2. All present indicators show that agriculture has been declining as a significant part of the county economic structure in terms of employment but has increased in terms of gross value of product.

3. Most of the agricultural income of the county is derived from relatively few farm types.

4. The single most productive farm enterprise in the county is the horticultural crop farming carried out on the Harbor Bench.

5. Cranberry production is a specialized type of agricultural use that is confined to a specific soil type that is presently under-utilized.

6. Virtually all the farms in the county are individually or family owned and most are owned outright.

7. Most farm operations are owner-operated.

8. All of the corporation farms in the county are family corporations.

9. About 50% of the farms in the county are part-time operations.

10. Tansy and gorse are weed problems which are having a negative impact on the pasture lands of the county.

11. Natural predators, as well as domestic dogs, have a negative impact on the livestock aspect of county agriculture.

12. Due to the relative isolation of the county from population centers; agricultural products from this area are more expensive because of the transportation costs to market centers.

The above inventory data provides the background information upon which planning decisions regarding the present and future use of agricultural lands in the county can be made.

3.6.2 Future Prospects for Agriculture in the County

Present data indicates that agriculture in Curry County will remain at about its present status or continue to slowly decline in importance to the local economic structure with regard to employment. However, the prospects for continued real increases in the gross farm product are possible if continued gains are made in farm efficiency. This optimal situation for county agriculture is possible only if certain problems are recognized and successfully solved. Among the most significant problems facing agriculture in the county are the following:

1. The price of land, even when valued under agricultural zoning is too high to allow the typical ranching operations to be profitable if land must be purchased for agricultural use.

2. The present ranching operations in the county are profitable only because the land is owned outright; however, transfer of these lands to new owners will preclude profitable ranching because of high costs, mortgage interest rates, and/or inheritance taxes.

3. Ranching is done either as a large scale full-time operation or a smaller scale part-time operation and both of these farm types must be preserved and encouraged if livestock productivity is to be retained.

4. Ranching of smaller size parcels more intensively must be encouraged to significantly increase livestock production.

5. Dairying is rapidly decreasing in importance as an agricultural use in the county because of the intensive maintenance costs and labor requirements of this type of farming.

6. There are two areas of unique farm lands in the county, the Harbor Bench horticultural crop area and the cranberry soil area which should be preserved for agricultural use.

7. The Harbor Bench area is the most productive agricultural area in the county and is also under the greatest impact from urban development; the land use conflict between agriculture and other competing uses must be resolved.

8. The predator and toxic weed problem, which have negative impact on agricultural uses, will have to be controlled to avoid further losses of agricultural production.

9. Local markets should be developed for agricultural products which can be grown in the area in order to diversify the farming in the area.

10. Transportation methods from the county should be improved in order to make local agricultural products more competitive in distant markets.

3.7 FUNCTION OF COMPREHENSIVE PLAN

The agricultural element of the Curry County Comprehensive Plan is intended to recognize the various aspects of agricultural use in the county and to insure through implementing measures that agricultural land in the county is retained for such use. This function of a comprehensive plan is carried out by a) designating agricultural areas on a map; b) determining appropriate land uses and lot sizes for those areas designated as agricultural lands; and c) provide implementing ordinances and administrative procedures to carry out the intent of the comprehensive plan.

3.8 FARM DISTRICTS

The agricultural lands of Curry County can logically be defined into three farm districts based on the predominant agricultural practice, soil type, climatic factors, irrigation water availability, and location. Three specific farm districts which recognize the above criteria are defined in Curry County for a) the Harbor Bench, b) the Blacklock Cranberry farming area and c) the grazing and pasture areas of the county. The first two farm districts are defined by specific physiographic, cultural or soil type boundaries because of their unique characteristics. The third farm district includes all other grazing and pasture lands as defined on the county Agricultural Lands Inventory Map. These grazing lands are in use for sheep and cattle grazing throughout the county and can be considered a separate district because of the similarity of agricultural practices.

3.8.1 Harbor Farm District

The Harbor Bench farm district is shown in Figure 3.8.A and generally lies between U.S. 101 on the east and the Pacific Ocean on the west; Olson and Benham Lanes on the north and Freeman Lane on the south, including the Camellia Park residential development in the central part of this area. This farm district encompasses most of the Harbor Bench physiographic unit which is still in agricultural production as well as the scattered residential development of individual parcels to total approximately 850 acres. (See Figure 3.8.A)

The district can be defined and its boundaries justified by various physical and cultural characteristics. The eastern boundary of the district is logically U.S. 101 because of its cultural impact and geographic location which separates the relatively flat bench from the western slope of the Harbor Hills. The western boundary of the district is the ocean which is the physiographic edge of the coastal terrace. The northern and southern boundaries of the district are streets which define a cultural boundary between densely populated, highly parcelized and fully serviced areas from those which are still predominantly in agricultural use.

The Harbor Bench farm district can also be defined as a single agricultural unit on the basis of soil type, climatological factors and irrigation water availability. Soils in the farm district are predominantly of the Knappa-Winchuck association with the dominant soil types being SCS Class I and II. Soil types to the east across U.S. 101 are of much lower productivity (SCS Class VII) due to bedrock material and slope factors.

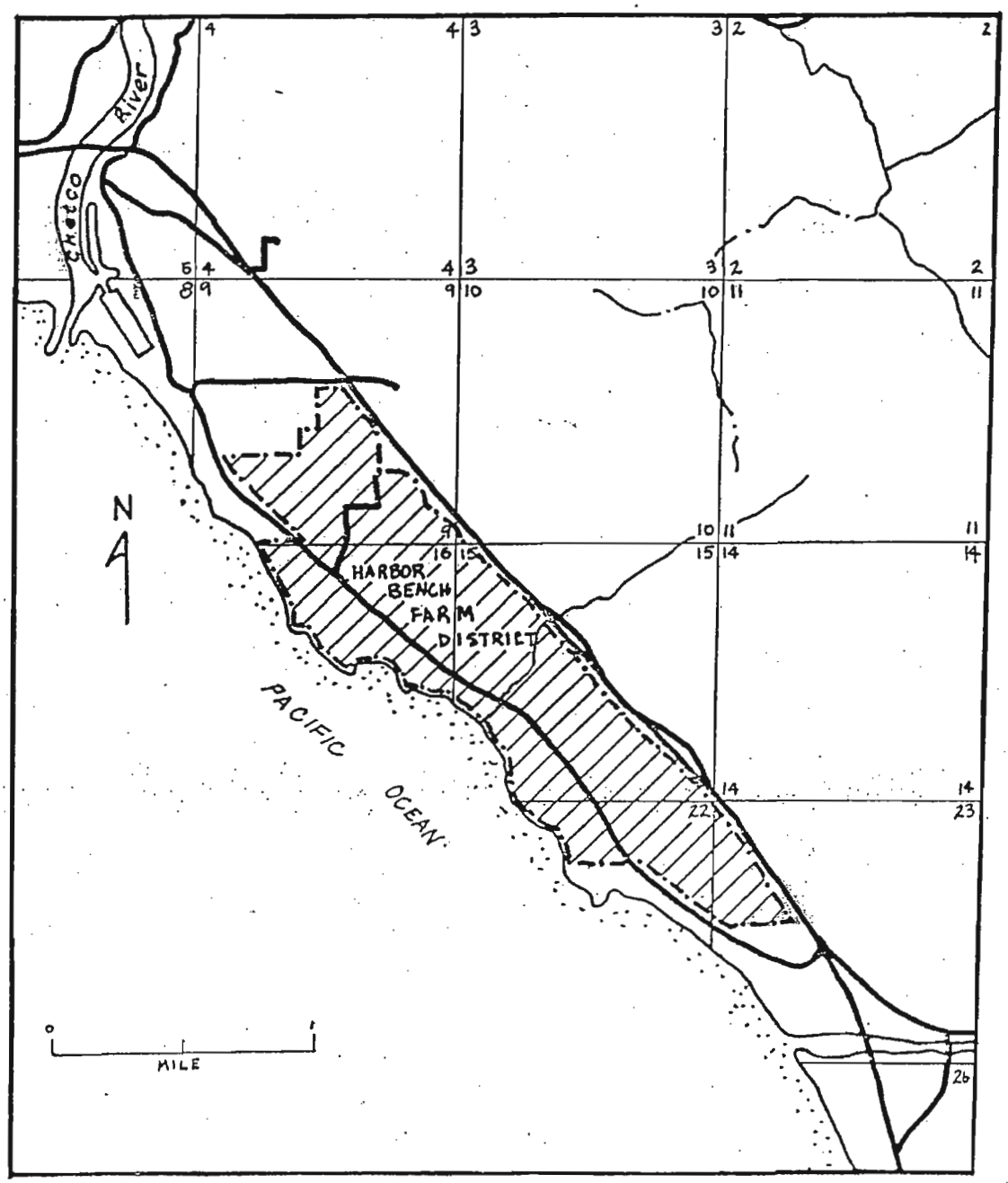

FIGURE 3.8.A
Harbor Bench Farm District

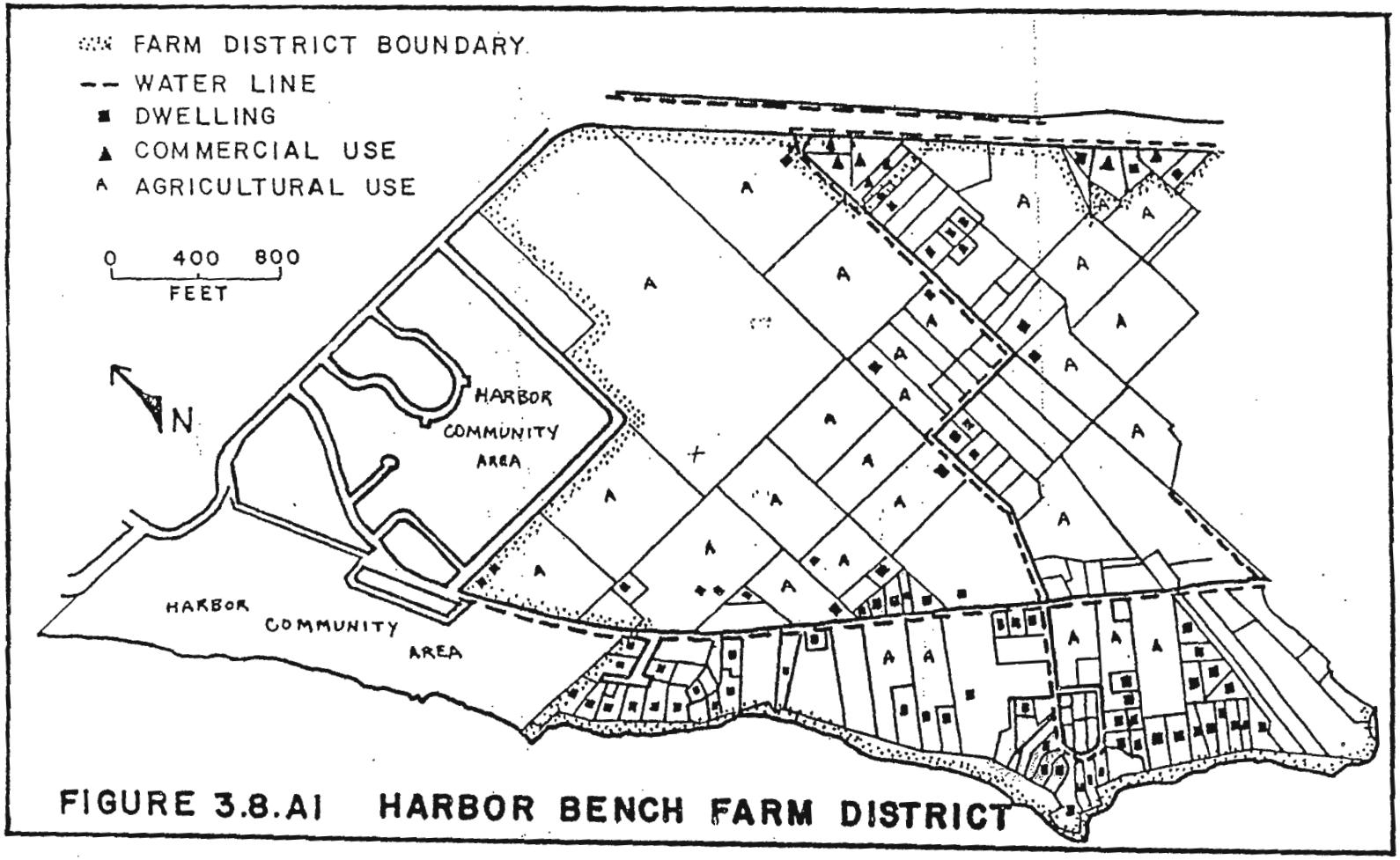

FIGURE 3.8.A1 HARBOR BENCH FARM DISTRICT

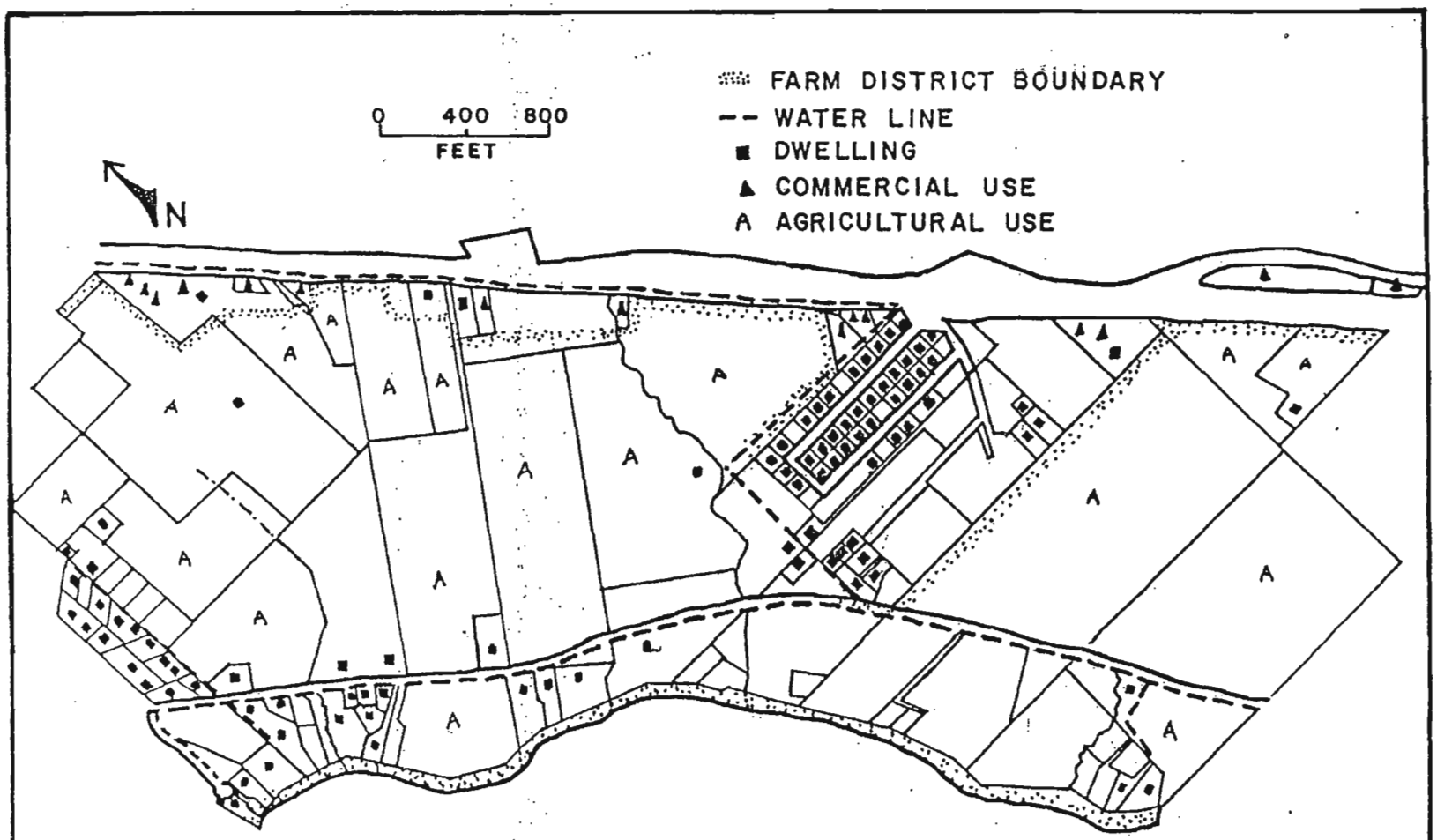

FIGURE 3.8.A2 HARBOR BENCH FARM DISTRICT

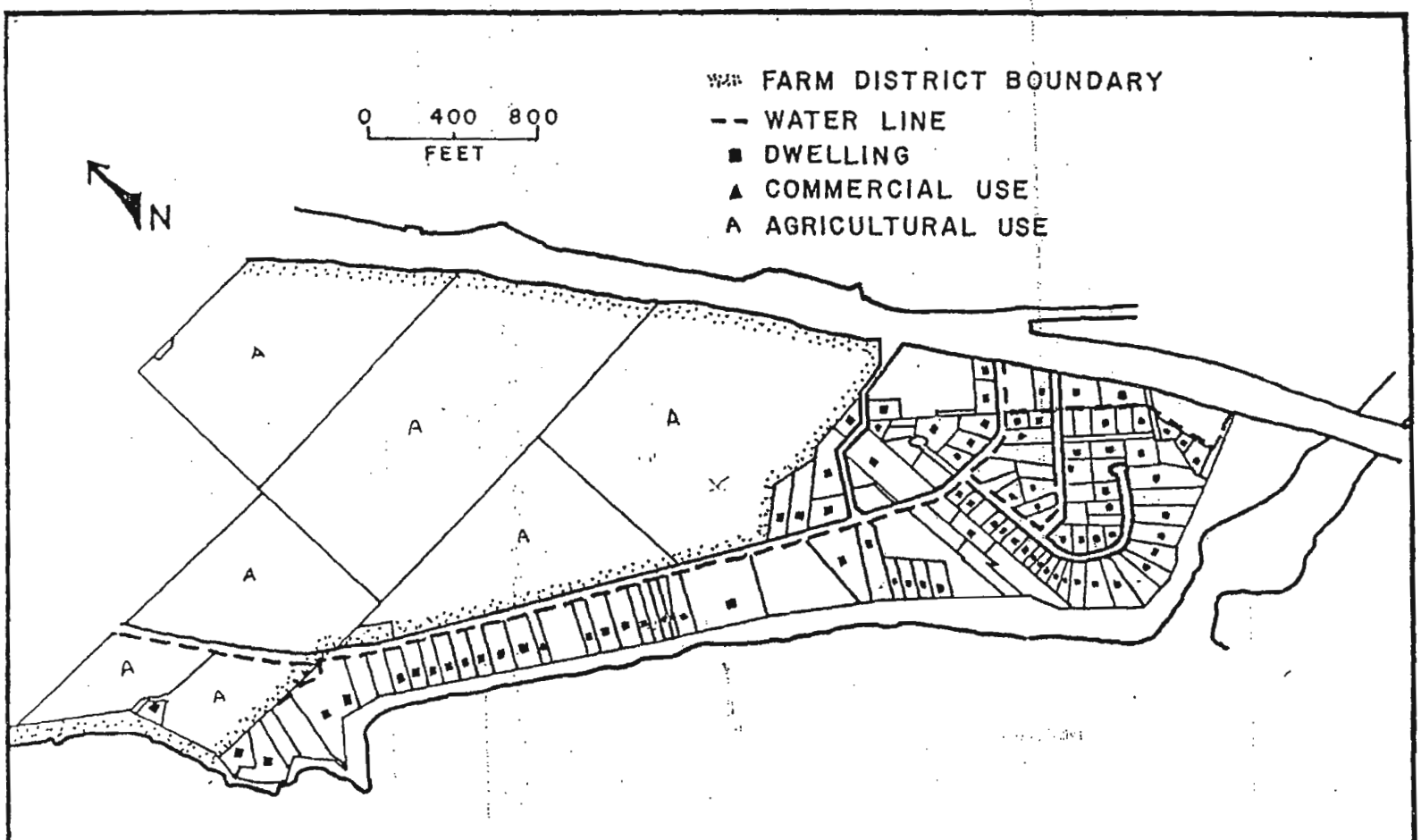

FIGURE 3.8.A3 HARBOR BENCH FARM DISTRICT

In general, soils in the district are uniform in their agricultural capabilities with the most notable exception being small areas with high groundwater problems. However, these wet areas can be made productive by the installation of subsurface drainage systems.

The Harbor Bench farm district can also be defined as a single agricultural unit on the basis of unique climatic factors which differ from the rest of the county. The coastal area of the county is under the influence of a marine climate which has the general characteristics which were described in section 3.2.3. The Harbor Bench has a unique "micro-climate" which is somewhat milder than other parts of the county with respect to temperature range, wind and rainfall. It has been reported that certain parts of the Harbor Bench are virtually frost-free due to the localized meteorological properties of the district. This micro-climate allows certain crops to be grown in the district that cannot be grown economically elsewhere in the county.

The Harbor Bench Farm District is also a single entity on the basis of irrigation water availability. Irrigation water for agricultural use in this district is derived from groundwater through a network of irrigation wells which draw from a water body lying beneath the coastal terrace. The source of this water is from the Harbor Hills immediately to the east which provide an infiltration area and drainage into the subsurface sands and gravels. The total groundwater availability for the Harbor Bench is unknown but the source is sufficient to produce modest irrigation needs at a rate of 1/80 cfs per acre without going below the "lowest permissible water table".[1] The demand for irrigation water in the district could either increase or decrease depending upon whether there is an increase in amount of land put into agricultural use. During the past decade there has been a steady conversion of land from agricultural to developmental uses which has decreased the demand for irrigation water in the district; however, this trend may end with the implementation of agricultural zoning in the district.

The typical agricultural practice in the area is the cultivation of horticultural crops, predominantly lily bulbs (see section 3.4.4) These crops are a high value product which can be produced on relatively small parcels of suitable land. Horticultural crop farming also lends itself to the utilization of non-contiguous

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[1] Lissner (1977)

parcels anywhere within the farm district. These factors have allowed horiticultural crop farming to successfully compete with developmental land uses in this district to the extent that small residential lots are cultivated and placed in production.

This intensive competition between agricultural and residential land uses in the Harbor Bench farm district have led to numerous land use conflicts caused by farm practices being carried out in close proximity to residential and commercial uses. Typical complaints involve the creation of dust, use of fertilizer, spraying of pesticides, noise, on the part of residents adjacent to farms. Farmers conversely have problems with trespass, damage to equipment and crops, and rising costs of land and taxes.

The designation of the Harbor Bench as a farm district will provide a means of treating this agricultural area as a unit so that planning decisions can be made on an integral basis with regard to the agricultural capability of the area. Basic policies with regard to the comprehensive plan for this farm district as as follows:

1. An agricultural zone must be applied to all vacant land within the district that is not committed to nonresource use in order to maintain the viable agricultural uses within the district.
2. Those nonagricultural uses within the district will be zoned for the present use but will be subject to the customary agricultural practices of the district.
3. Those commercial uses located along U.S. 101 will be treated in a rural commercial zone which will confine commercial use to those which can be developed with rural services.
4. Future residential uses within the district will be limited to those which can be substantiated with findings that show it will qualify as a nonfarm related dwelling on land which cannot be farmed.
5. Agricultural use within the district boundary will be protected by a "right-to-farm" provision extended to all farm uses so that the existing nonfarm uses cannot bring complaints against the farmer for employing acceptable and normal farming practices.
6. Plans for construction at McVay State Park shall be submitted to Curry County for public review to ascertain that they are compatible with the Comprehensive Plan and adjacent land uses as required by Statewide Planning Goals 1 and 2.

7. The county and adjacent special districts will be restricted in the extension of urban services (water lines, sewer lines, improved streets, etc.) into the farm district except under the provision of alleviating a health hazard.

8. The southern boundary of the existing Harbor Sanitary District must be the ultimate southern boundary of the Brookings-Harbor UGB if the Harbor Bench farm district is to be maintained for agricultural use.

3.8.2 Blacklock Cranberry Farm District

The Blacklock Cranberry Farm District has been defined to encompass an agricultural area of about 2300 acres in the north part of the county which has a soil type that is suitable for the cultivation of cranberries. This farm district includes that part of the county which has a large contiguous area of Blacklock series soil. The Blacklock soils are found in flats and depressions on the marine terrace that extends between Port Orford and Langlois. The predominant soil of this series is the Blacklock fine sandy loam which is a low permeability, strongly acid soil which is of low fertility except for cranberries and shore pine or spruce which can be grown for Christmas trees.

Although this soil is mapped at various places on the coastal terrace in northern Curry County; the largest tract of Blacklock soil is found in the farm district shown in Figure 3.8.B. This farm district has been defined by U.S. 101 on the east and Floras Lake State Park on the west which are both cultural and physiographic boundaries for Blacklock soil. The northern and southern boundaries of the district are defined by section lines which generally follow the limit of Blacklock soil in this area.

Present farm development in this district is limited to cranberry bogs located along the north and south side of Airport Road. At this time there are approximately 27 separate cranberry bogs in the district. Parcelization of the farm district varies as a function of distance from the public roads. Those lands lying along U.S. 101 and Airport Road have been divided into smaller parcels where as those lands in the northern and western part of the district are still in large holdings.

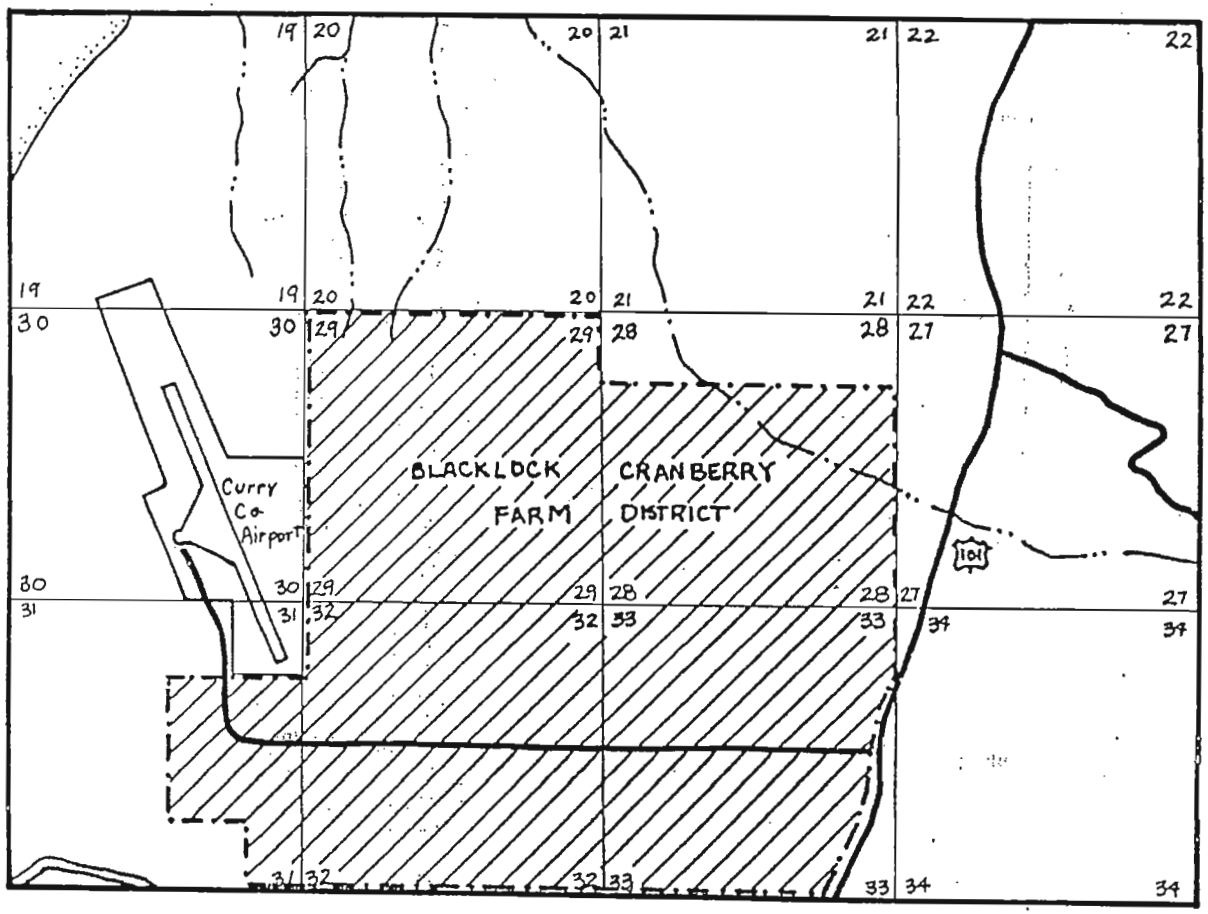
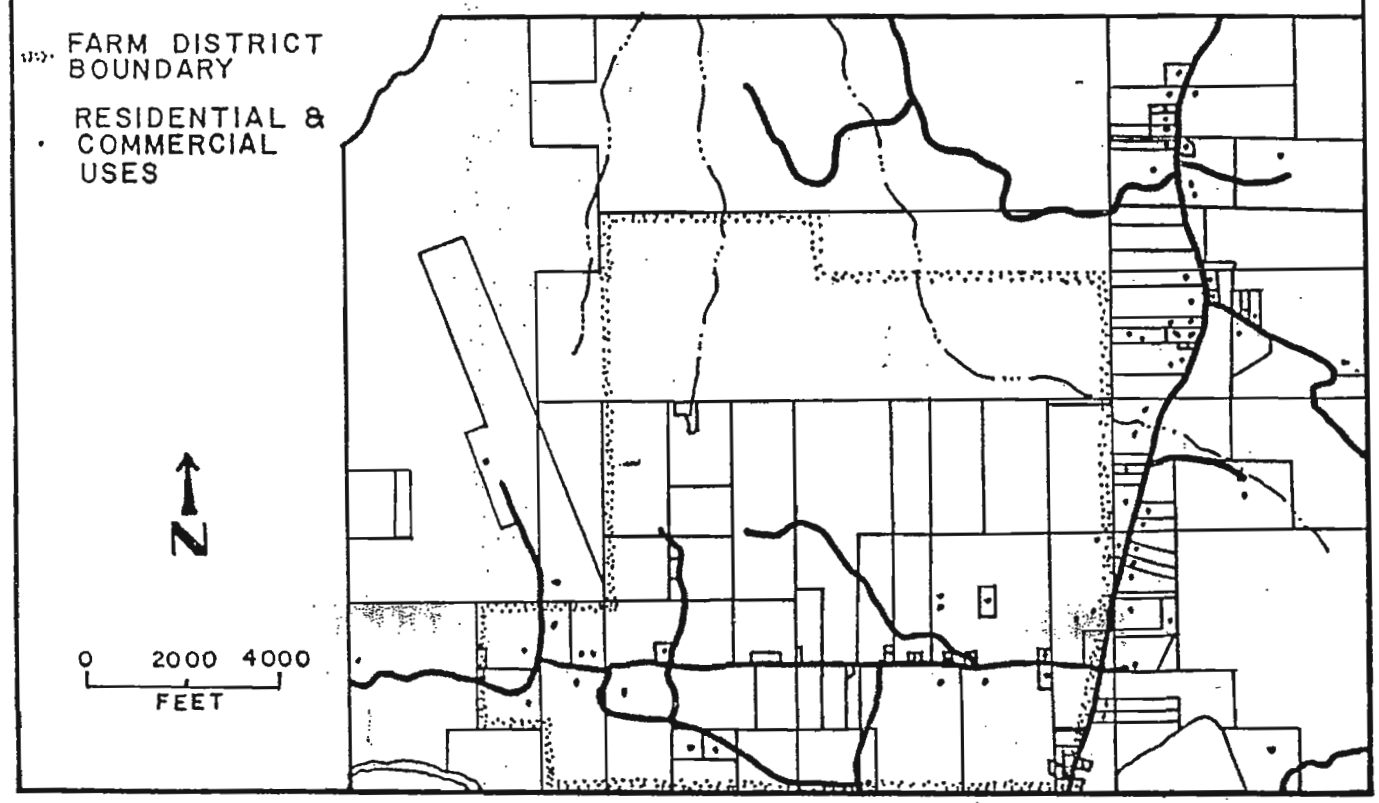


FIGURE 3.8.B
Blacklock Cranberry Farm District

FIGURE 3.8.B1

BLACKLOCK CRANBERRY FARM DISTRICT



The Blacklock Cranberry Farm District can also be generally defined in terms of water availability because of the relative impermeability of the soil which causes ponding of surface waters. This attribute of the Blacklock soil makes the cultivation of cranberries possible because bogs or ponds for growing the berries can be excavated in the soil so that irrigation waters are retained in the bog. Water for irrigation is obtained from well and surface sumps.

This farm district also has a few parcels in Christmas tree production. The Blacklock soil is also suitable for the production of cultivated Christmas trees especially shore pine and spruce varieties. The Christmas tree farms are also relatively small operations because of the intensive nature of the agricultural practice. Christmas tree farming requires the continuous maintenance in the form of fertilization, pruning, application of pesticides, fence maintenance, irrigation, theft and harvest. Most of these operations involve the farmer living on the farm site to provide the needed care of the crops and for protection against loss to natural hazard or theft.

Land surrounding the Blacklock Cranberry Farm District is vacant and in agricultural or rural residential use at present. Land to the west, however, is in use as a state owned airport and for the Floras Lake State Park. At present both the airport and the state park are undeveloped so there is little conflict between these uses and the adjacent agricultural uses.

The designation of the Blacklock soil area as a farm distict provides a means of treating this area as a unit so that planning decisions can be made on an integral basis with regard to the agricultural capability of the area. The Comprehensive Plan for this farm district recognizes the following basic policies related to the agriculture of the area:

1. An agricultural zone must be applied to the entire district in order to maintain the viable agricultural uses within the district and retain the unique Blacklock soil for agricultural use.

2. Those non-conforming uses presently located within the district will be zoned for the present use but will be subject to the customary agricultural practices of the district.

3. The cranberry and Christmas tree production which is the only commercial agricultural production possible in this district requires intensive management of small parcels.

4. Agricultural use within the district boundary will be protected by a "right-to-farm" provision extended to all farm uses so that the existing non-farm uses cannot bring complaints against the farmer for employing acceptable and normal farming practices.

5. The Blacklock soil type is poor for sewage disposal by septic system so that concentrated residential development is probably not possible in the area.

6. The further development capabilities of the state owned airport to the west of the farm district would be limited to those uses which are compatible with the airport requirements and not detrimental to the farm uses.

7. Plans for construction at Floras Lake State Park shall be submitted to Curry County for public review to ascertain that they are compatible with the comprehensive plan and adjacent land uses as required by Statewide Planning Goals 1 and 2.

8. There are no nearby special district which could supply public water or sewer and such districts should be discouraged from organizing within the farm district to prohibit further urbanization of the area.

9. The status of Airport Road should remain in its present two lane status and secondary farm roads should be developed in the district to encourage farm use.

3.8.3 Grazing and Pasture Areas

The remaining agricultural lands in Curry County are in grazing or pasture use for ranching and dairy operation. These lands are located throughout the coastal area of the county and are shown on the Agricultural Lands Inventory Map as the SCS Class I-IV soil used for rangeland. These lands are physiographically of three types: 1) coastal teraces; 2) river valley bottom lands; and 3) hill lands which are generally open areas with limited forest cover. Although these lands are diverse with respect to soil type, physiography, parcelization, and cultural aspects, they share a common agricultural use for the grazing of livestock. This similarity in agricultural use is pri-

mary justification for treating them as an agricultural unit for purposes of comprehensive planning.

The largest single tract of grazing and pasture land in the county is located along the coast from Elk River north to the Coos County line excluding the Blacklock Cranberry Farm District. Most of the grazing land in this area is located on the coastal terrace and in the river valley; although the coastal hill land east of Langlois has been almost exclusively converted from forestry use to rangeland. Rangeland in this area is predominantly used for the grazing of sheep and cattle with some dairy uses located near Langlois and in the Elk River Valley. Parcelization of land in this area varies considerably with ranching operations being carried out on parcels ranging in size from a few acres to several thousand acres. Generally parcel sizes are smaller near the coast and along the major river valleys and larger in the more remote upland areas.

In central and southern Curry County pasture and grazing lands are generally found in smaller tracts because of the limited width of the coastal terrace and narrower valley bottoms. Most of the coastal hill lands in this part of the county are in forest use and grazing possible only where there has been no reforestation. The exceptions to the above situation is in the Wedderburn and Harbor Hills-Winchuck areas where hill land pastures have been established for many years.

The availability of irrigation water varies considerably in the grazing and pasture areas of the county with the only irrigated pastures being located along the rivers and major streams. Generally these are bottom land pastures used for the pasturing of dairy cattle, beef cattle, and some sheep. Productivity of the irrigated pasture is considerably higher than non-irrigated land so that agricultural operations are often carried out on smaller parcels. The coastal terrace grazing lands are relatively flat so that pasture improvements including reseeding, fertilization, etc. are possible. Most of the hill land pastures are unimproved grass pastures or clear areas with natural vegetation that are used for rangeland. These areas are the least productive grazing lands in the county and the most difficult to improve for agricultural purposes.

Farm development on grazing and pasture lands have great diversity in terms of farm operation. Typical farms range from small part-time ranch operations in which the agricultural profit augments other family income to large scale operations that utilize a variety of pasture and grazing lands to achieve maximum productivity. The type of farm development generally follows the parcelization of the land; with the smaller farms being located in areas that are already parcelized into smaller acreages. Many of the large ranching operations are located on farms established during the early settlement days of the county and have been passed down to the present generation as intact holdings with some being family corporations.

The treatment of the grazing and pasture lands in Curry County as an agricultural entity for comprehensive planning purposes has identified the following policies related to this type of agriculture in the county:

1. An agricultural zone must be applied to these lands in order to maintain those viable agricultural uses of livestock grazing and dairying.

2. Those non-conforming uses presently located within these areas but outside areas committed to non-resource use will be maintained under a non-farm status of the present use allowed.

3. The agricultural zone developed for these lands requires that new divisions of land meet certain criteria that show that the proposed parcel shall be appropriate for the continuation of existing commercial agricultural enterprise in a manner consistent with Oregon Revised Statutes Chapter 215 (Agricultural Lands Use Section).

4. The agricultural zone developed for these lands has a lot size requirement which is consistent with the existing parcelization of the land or the possible farm size for an efficient ranch operation.

5. Future residential uses which do not meet the lot size requirement will be limited to those which can be substantiated with findings that show it will qualify as a non-farm related dwelling.

6. Agricultural uses on these lands will be protected by provisions in the agricultural zone which require non-farm dwellings to provide set-back, fencing or other means of isolation to the adjacent agricultural uses for the protection of valuable livestock.

3.9 PARCELIZATION OF AGRICULTURAL LAND

Agricultural land in Curry County has an existing parcelization pattern which has developed according to the road system which has developed in the county. Generally land has been subdivided into smaller parcels in areas which are serviced by public roads and remains in larger tracts in the more remote parts of the county. The county has prepared a set of maps which show the parcelization of lands in the coastal areas based on parcel size as indicated by tax assessor maps and ownership information. Actual mapping has been done in terms of several categories of lot size and the location of residential uses in rural areas.

Comparison of the Agricultural Land Map to the parcelization maps indicate that much of the land which has been parcelized into small lots (less than 20 acres) also has agricultural capability. Recognition of the parcelization of these areas necessitates the development of resource zoning which is applicable to these areas. The only practical way to handle this problem is to provide agricultural zoning in these areas which has a minimum lot size that is compatible to the existing parcelization.

Lands that are parcelized in areas over 20 acres generally do not follow a set pattern that would lend itself to mapping of areas that are committed to a parcel size of 40, 80, or 100 acres. Lands that are in these larger parcel sizes are often intermixed with lots that are of smaller sizes in a random manner; therefore, it is impractical to map parcelization at a parcel size larger than 20 acres. However, it is practical to consider minimum lot sizes in terms of 40 acre parcels or multiples of 40 acres because lands are generally sold as government lots (40 acres) or multiples of such lots.

3.10 LOT SIZE GUIDELINES FOR AGRICULTURAL LAND

The comprehensive plan for Curry County recognizes the following aspects of agrciulture in the county: 1) those lands which have agricultural capabilities; 2) the nature of agricultural use applied to those lands; and 3) the existing parcelization of those lands. These three factors have been considered in developing a justification for making lot size determinations in future land divisions.

The comprehensive plan recognizes two areas in the county with unique agricultural characteristics as farm districts. The remaining agricultural land in the county is grazing and pasture land which is treated as a separate agricultural unit.

The two farm districts will be administered with agricultural zoning that has a guideline parcel size based upon the typical economic farm unit of each of the farm districts. The typical farm practice of the Harbor Bench Farm District is the row crop farming of horticultural crops. As stated in Section 3.8.1 this type of farming is very intensive and profitable so that a reasonable annual income can be obtained from a one-acre parcel. Using acceptable farming practices a farmer could gross approximately $5-7,000/acre in a horticultural crop. Therefore, by having six acres on a three-year rotation the farmer could consistently maintain a net income of $10-14,000/year. However, there is a range of parcel sizes within farm districts so that further divisions of resource land will be based upon an analysis of all farm units established within the boundaries of the farm district as shown in Figure 3.8.A1, A2, and A3.

A similar analysis has been made for the Blacklock Cranberry Farm District. In this district the typical farm practice is the production of cranberries in bogs. The typical cranberry bog as stated in Section 3.8.2 ranges from five to ten acres in area. Cranberries now return about $4200/acre in profit to the farmer; therefore, a five acre bog can return an income of between $20-22,000/yr. to the farmer. The guideline parcel size is based upon a typical economic farm unit for the area. Further divisions of resource land in this area will be based upon an analysis of all farm units established within the boundaries of the farm district as shown in Figure 3.8.B.

The remaining agricultural land in the county, which is grazing land, will be administered by the Forestry-Grazing zone which is based on the requirements of ORS 215 for agricultural uses but also allow typical forest uses due to the intermixture of these resources on these land areas. The application of this zone to land in the county will be based upon the existing parcelization of these lands. It is intended that there will be four forestry-Grazing (F-G) designations with 10, 20, 40, and 80 acre lots size guidelines which will be applied to those agricultural lands.

The 40 acre guideline has been applied to lands which are generally capable of producing farm income from a parcel of that size through acceptable farm practices of grazing or pasturing of beef cattle or sheep, and dairying.

The analysis that supports the conclusion that a 40 acre parcel could be an economic farm unit for ranching or grazing is as follows:

> The predominant soil type in the coastal area that has been designated for grazing or pasture use is the Orford association (Orford silty clay loam). This soil type under a management plan that includes drainage, improved grasses and legumes, rotation, lime, and proper fertilization is capable of producing 12 AUM (animal units per month)[1]. Therefore, under such management a farmer could conceivably make a profit and become an economic farm unit by the following analysis for beef cattle.

Basic data -

Grass-legume yield in pasture = 12 AUM

Grazing season in Curry County = 7 months

1 Animal Unit = 1 cow-calf pair

1 cow-calf pair = 1500 lbs. live animal weight

Price of beef = $0.80/lb.

$\frac{12 \text{ AUM}}{7 \text{ mos.}}$ = 1.7 Animal Units

1.7 x 39 acres = 66.3 animal units (AU)

11.3 (AU) x 1500 lbs. = 99,450 lbs.

99,450 x $.0.80/lb. = $79,560. gross income

x.20 profit (20%)

$15,512. net income.

The above analysis indicates that the land under intensive management with a farmer that is sufficiently efficient to return a 20% profit a reasonable living could be made on a 40 acre parcel. The 80 acre guideline size is utilized in areas where lands which could be managed as economic farm units similar to that described above are presently in larger parcel sizes.

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[1] Soil Conservation Service -USDA (1970) p. 37.

Commission. The farm management plan submitted with the proposed land division of agricultural land must include the following information:

1. A map of the subject property including some indication of ground slope.

2. A determination of soil types present on the subject property.

3. A report which states the following:

   a) the type of grass, legume, or crop either present or to be planted to bring each parcel proposed to maximum yield;

   b) The type and amount of soil amendments (lime, fertilizer, etc.) or treatments necessary to achieve maximum yield on each parcel proposed in the land division;

   c) the type, quantity and source of irrigation water to be applied to the land to achieve maximum yield if required, and

   d) the stocking levels and field rotation of stock to reach maximum yield on each parcel proposed in the land division.

This management plan will provide the basic findings of fact that will become a part of the decision to allow the division of land and as such will be a part of the permanent record of the county regarding the issue. Since the division of land is approved on the basis of the management plan, the plan should also be noted as part of the disclosure statement, the plat or map of the parcel and chain of title for the parcel.

Implementation of these agricultural zones will have the following effect on these resource lands: 1) it will limit the land use to those agricultural uses which are compatible to the farm practices of the area in genreal, and 2) lot size criteria in the resource zones will limit further parcelization of these lands to lots which are comparible to the present parcelization of these lands but not below a size needed for resource use. These zones also have the provision for nonfarm dwellings as a conditional use which would be allowed on "grandfathered" sub-standard parcels provided they meet the criteria outlined in the zone which is specified in ORS 215 and if adequate findings are developed to justify the dwelling.

3.11 GENERAL PLAN POLICIES FOR AGRICULTURAL LANDS

Curry County has adopted the following plan policies for agricultural lands:

1. Curry County seeks retention of agricultural land for agricultural use and reduction of uncertainty regarding the status of county agricultural lands by adopting a comprehensive plan which provides zoning of agricultural lands that is appropriate for the continuation of existing commercial agricultural enterprise consistent with Oregon Revised Statutes Chapter 215 (Agricultural Land Use Section).

2. Curry County seeks expansion of the food processing industry within the county by providing commercially and industrially designated lands for the siting of such facilities.

3. Curry County seeks expansion of the storage of water for irrigation by the use of impoundment structures on agricultural land.

4. Curry County seeks control and eradication of predators and poisonous weeds from agricultural lands to promote agricultural production with livestock.

5. Curry County promotes the opening of foreign and domestic markets for county agricultural products.

6. Curry County seeks improvement of agricultural services and facilities in the county which will assist local production.

7. Curry County seeks new lines of production which utilize local pelts and hides as well as other agricultural crops produced in the county.

8. Curry County seeks greater use of processed municipal and industrial wastes for agricultural fertilizer.

9. Curry County seeks local availability of low priced fertilizer, fuel, and other agricultural supplies.

10. Curry County will not approve an exception to Goal 3 for a comprehensive plan change from an agricultural designation to any nonresource plan designation if the subject property is in a special property tax assessment for farm use.

Curry County has adopted as general plan policies for agricultural lands those economic policies of the "Comprehensive Economic Development Strategy 1980-81 Action Program".[1]

Policy 1. Retention of agricultural land for agricultural use and reduction of uncertainty regarding status of agricultural lands by adopting a comprehensive plan.

Policy 2. Seek expansion of the food processing industry within the county and the region.

Policy 3. Seek expansion of storage of water for irrigation throuth the use of impoundment structures on agricultural lands.

Policy 4. Seek control and eradication of predators and poisonous weeds from agricultural lands to promote agricultural production with livestock.

Policy 5. Promote the opening of foreign and domestic markets for county agricultural products.

Policy 6. Seek improvement of agricultural services and facilities in the county which will assist local production.

Policy 7. Seek new lines of production which utilize local pelts and hides as well as other agricultural crops produced in the county.

Policy 8. Seek greater use of processed municipal and industrial wastes for agricultural fertilizer.

Policy 9. Seek local availability of low priced fertilizer, fuel, and other agricultural supplies.

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[1] CCD Economic Inprovement Association (1980).

CURRY COUNTY COMPREHENSIVE PLAN

CHAPTER 4 - FOREST LANDS

4.1 INTRODUCTION

Forest lands represent about ninety percent of the land area in Curry County and the timber industry has been of central importance in the economic and social development of the region. Forest land, like agricultural land, provides most of the open space area of the county and also are among the most scenic areas of the county. These lands are the single most important resource land to the county on the basis of economics since they form the source of most of the private and public revenue that is returned to the county. The gross value of the forest product exceeds the value of all other sectors of the county economy combined.

The State of Oregon recognizes the importance of forest lands to the interests of the state and has provided for their consideration in the development of local comprehensive plans. Statewide Planning Goal 4 specifically requires that: "Forest land shall be retained for the production of wood fiber and other forest uses", and "Existing forest land uses shall be protected unless proposed changes are in conformance with the comprehensive plan".[1]

The purpose of this section of the plan is to adequately identify those lands of the county which are in forest use and meet the requirements of LCDC Goal 4. Part of this section of the plan is an inventory map (see Forest Lands Map, Inventory Map Atlas) which shows the location of all lands which have commercial forest production capability. The plan also provides an assessment of the historical background of forestry in the county, typical forest practices, forest income and economic structure, and a logical reasoning for land use designations on forest lands with policies to guide future decisions with respect to these lands.

4.2 FOREST LANDS

The Statewide Planning Goals and Guidelines define forest lands to include " 1) existing and potential areas suitable for commercial forest uses; 2) other forested lands needed for watershed protection, wildlife and fisheries habitat and recreation; 3) lands where extreme conditions of climate and topography require the maintenance of vegetative cover irrespective of use; 4) other forested lands in urban and agricultural areas which provide urban

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[1] LCDC (1978)

buffers, windbreak, wildlife and fisheries habitat, livestock habitat, scenic corridors and recreational use"[1]

Goal 4 further requires that forest lands be inventoried by determining and mapping such lands as "forest site classes according to the United States Forest Service manual 'Field Instructions for Integrated Forest Survey and Timber Management Inventories - Oregon, Washington and California, 1974'."[1]

Curry County has developed a Forest Resources Map which defines all lands in the county which lie outside of the Siskiyou National Forest. All lands inside the forest boundary which are in public ownership are considered to be forest land by definition. The determination of forest land by site class on private land within the national forest boundary and lands outside the forest boundary was done utilizing the analysis technique determined by the Oregon State Department of Forestry.[2] This analysis technique was developed specifically for local planning agencies to utilize in meeting the requirements of Goal 4. The Forest Resource inventory was determined as a cubic foot site class for Douglas Fir as the primary commercial species. The soil types present in the county indicate that most lands in the county have a relatively high cubic foot site class (2 to 3) for commercial species. In addition, the County has mapped those soil areas which are inclusions within productive classes, but have thin and stoney soil and poor cubic foot site class. These unproductive areas are often open grassland areas and are indicated on the Agricultural Lands Map as grazing land or natural prairies. The site class information was derived through conversion of the SCS Soil survey maps to cubic foot site class maps for the basic resource information. A separate map of commercial forest land was prepared using ownership information from the County Assessor's Office which identifies corporate timber lands.

In addition to the forest resource lands identified as having a high site class for Douglas Fir there is an area in northern Curry County mapped as the "Blacklock Soil Series." This soil series, while unsuitable for Douglas Fir, does have a relatively high site class for Sitka Spruce and is also suited for growing Christmas trees and forest greens (ferns, salal, etc.) used in the floral industry. The Blacklock soil

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[1] LCDC, (1978)

[2] Oregon State Department of Forestry (1978)

area has not been treated as forest land but rather as a farm district because of its high productivity for cranberry farming (See Chapter 3, Section 3.8.2). Also due to the dual nature of soil productivity, some of the agricultural soils in the county have a high cubic foot site class for timber production. These areas, especially those lying in river valley flood plains and the areas of agricultural use with SCS Class I-IV soils were not mapped for cubic foot site class, but were considered only as agricultural lands.

4.2.1 Types and Uses of Forest Land

Generally forest lands in Curry County represent a transition zone where the Douglas Fir-Western Hemlock community found to the north becomes mixed with the Douglas Fir hardwoods which occur in California. A wide range of plant communities are found in the area, influenced by the variances in climate and soils along with an extensive history of fire.

More than 1400 plant species have been identified in the Siskiyou National Forest. About 74% of the total forest timber volume (hardwoods and softwoods) is composed of Douglas Fir. The second most common species is tan oak. The most important factor in the development of vegetative types in the Siskiyou has been the repeated fires which have left vast brushfields of tanoak and madrone. Inventories of the forest indicate that there are 65,004 acres of high site class land and 43,937 acres of low site class land currently occupied by hardwoods which could support commercial stands of conifers.

Historically the forest lands in Curry County have had an important part in the development of the county even though gold and other mineral resources were the first attractions of the land.

The discovery of gold in 1850 and 1851 brought many miners to the area, creating a new demand for lumber, and the first sawmill was shipped to Port Orford by steamer in 1854. Timber harvests in Curry County held at a relatively low rate until the early 1930's when the Roosevelt Highway was completed, greatly easing transportation problems. Productivity declined during WW II, to rise sharply in the years following 1945. The Siskiyou National Forest was established in 1906. Early management activities centered around fire suppression, boundary surveys,

and inventory. Timber sales were relatively unimportant until 1917 when the first significant amount of timber was sold. By 1922 the first formal timber management plan was approved but comparatively small amounts were harvested until the mid or late 50's when demand for lumber increased rapidly. Forest harvest levels in Curry County rose every year during the 1950's until a peak harvest was reached in 1960 and have continued to decline since that year.

Besides the commercial production of timber there are other forest uses which include: 1) the processing of forest products; 2) grazing land for livestock; 3) open space, buffers from noise, and visual separation of conflicting uses; 4) watershed protection and wildlife and fisheries habitat; 5) soil protection from wind and water; 6) maintenance of clean air and water; 7) outdoor recreational activities and related support services and wilderness values compatible with these uses. The comprehensive plan and implementing ordinances provide for the principal use of commercial timber production as well as these other related forest uses.

4.2.2 Forest Productivity

Forest lands in Curry County are economically classified into four basic categories as shown in the following table.

TABLE 4.2.A

ECONOMIC CLASSIFICATION OF FOREST LANDS

Type	Acreage	Percentage
Nonforest	92,000	9.7
Commercial Forest	623,000	61.8
Unproductive Forest	140,000	14.8
Reserved Lands (Wilderness areas)	94,000	13.7
TOTAL	949,000	100.0

Source: CCDEIA (1980) with modifications for wilderness expansion.

Since commercial productivity from forest lands is essentially confined to those lands which are classified as "commercial forest" further examination of this category is necessary. The ownership of commercial forest lands is a significant factor in the productivity of these lands because forest lands are managed differently by their owners. Table 4.2.B shows the breakdown of commercial forest land ownership in Curry County.

TABLE 4.2.B

OWNERSHIP OF COMMERCIAL FOREST LAND (1/1/75)

Owner	Acreage	Percentage
National Forest	412,000	41.7
Other Public (BLM, State, Etc.)	59,000	10.0
Forest Industry Corp.	165,000	28.2
Other Private	118,000	20.1
TOTAL	754,000	100.0

Source: CCDEIA (1980) with modifications for wilderness expansion

A further factor related to forest productivity is the stocking of forest land with timber or where the presently merchantable timber is located. Table 4.2.C gives some indication of this in the recent past.

TABLE 4.2.C

OWNERSHIP OF SAWTIMBER ON COMMERCIAL FOREST LANDS

	1975	
Owner	Mbf	%
USFS	1782	70.7
Other	263	10.4
Forest Industry Corp.	213	8.5
Other Private	261	10.4
TOTAL	2519	100.0

Source: Timber Resource Statistics for Oregon (1973)
Timber Resources of Southwest Oregon (1977)

As can be seen most of the timber is stocked on National Forest land which is easily accounted for in terms of the area of the county that is within the Siskiyou National Forest and other public lands.

Other private land ownerships only account for 13% or less of the total available sawtimber. This table also indicates that the percentage of public timber ownership is also rapidly increasing in Curry County.

Statistics regarding the total production of timber in the county are difficult to obtain because much of the forest land is in management units that cover areas larger than the Curry County jurisdictional boundary (i.e. Siskiyou National Forest, BLM, Corporate ownerships, etc.). However, an estimate of the total timber production of the county was prepared using various sources of data to give an indication of county productivity since 1925. Figure 4.2.A shows the total timber harvest per year in five year increments of years 1925 - 1975. As can be seen, timber production in Curry County from 20,000 Mbf to over 450,000 Mbf at peak production in 1960 and then has dropped almost as fast to production levels similar to that prior to 1950.

In more recent years timber productivity statistics have been tabulated on a year to year basis, and indicate the timber production by ownership.

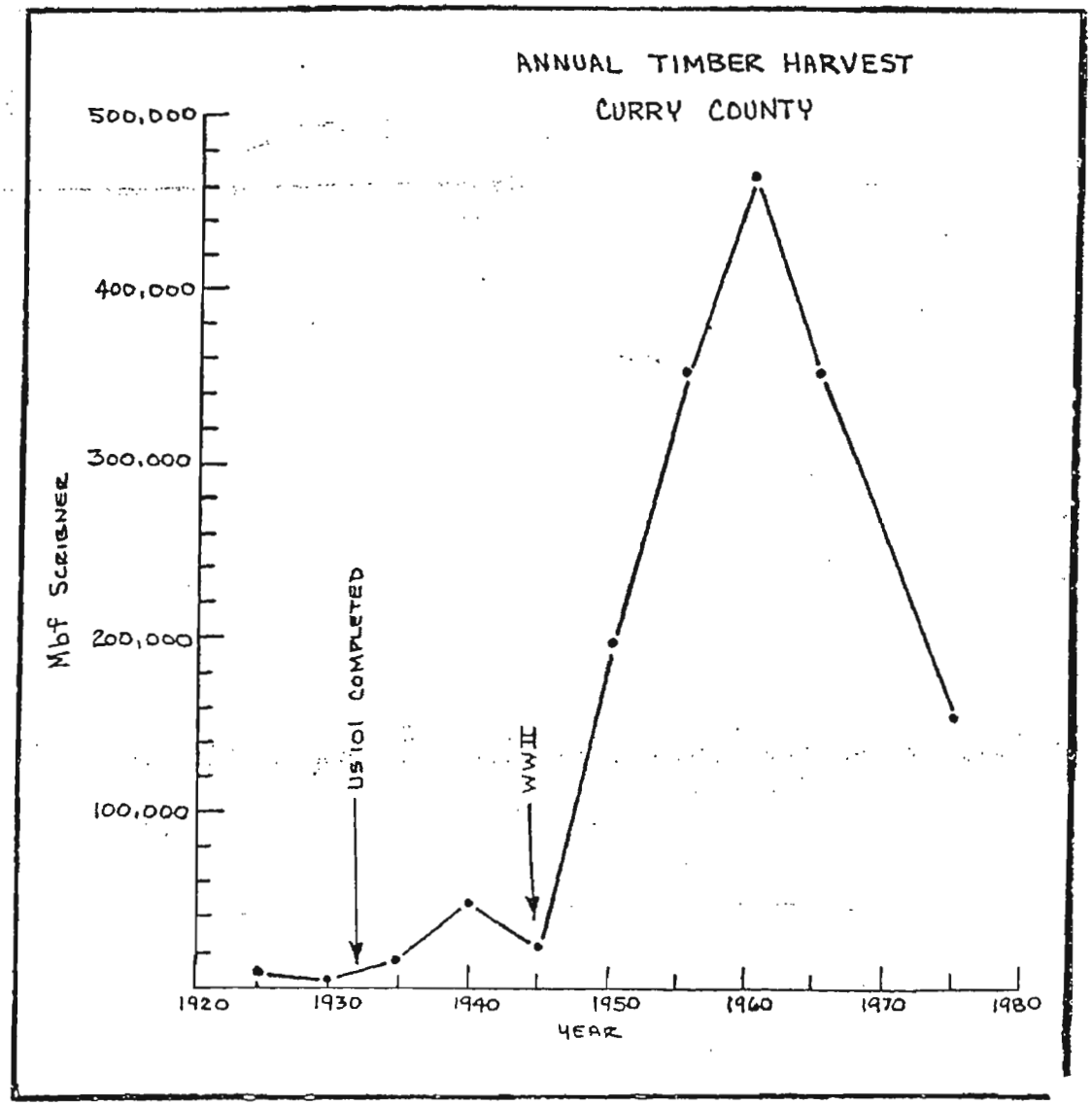
TABLE 4.2.D

TIMBER PRODUCTION BY OWNERSHIP (Mgb Scribner)

Owner	1974	1975	1976	1977	1978
USFS	99,607	69,621	75,510	102,133	144,814
Other Public	21,693	9,451	11,817	21,203	12,580
Forest Industry Corp.	80,100	62,032	46,862	73,205	73,157
Other Private	5,170	14,172	22,789	11,478	5,143
TOTAL	206,570	155,276	156,978	208,119	235,694

Source: USFS (1978)

FIGURE 4.2.A



Based on staff compilations from various sources.

This table indicates that timber production from public land and forest industry lands has generally declined over these years but that production from other private lands has increased. Comparison of Tables 4.2.D and 4.2.C shows that what timber production has been maintained in recent years has come from private forest lands such that the growing stock of these lands in the county are becoming very low. Conversely, the greatest percentage of merchantable timber remaining in the county is on public land so that if present levels of production are to be attained in the future the timber will have to come from these lands.

Various assessments have been made of future forest production from Curry County and the south coast region. The most comprehensive of these reports is by the O.S.U. Forest Research Laboratory which indicates that the present timber harvest in Coos and Curry Counties can be maintained under present policies and actions until about 1995 but could fall as much as 35% after that time.[1] These projections are based upon the fact that private forest lands not owned by the forest industry represent a significant portion of the timber producing base. Also the projections note that 16% of the harvest volume over the next 30 year period is expected to be hardwood.

Although projections of timber productivity and harvest are useful for planning purposes they hardly ever become a reality as time passes. Projections made in the 1970's were based on a demand created by rapid expansion of the home building industry and consequently reflect a short term exhaustion of the resource. The poor economic conditions since 1979 with respect to home building have severely reduced the demand for forest products so that these projections will have to be re-evaluated in terms of present markets and potential future demands.

4.2.3 Forest Management

Most of the forest land within the county is located within the Siskiyou National Forest which covers the eastern two-thirds of the county as well as parts of adjacent counties. This forest is managed as a single unit by the U.S. Forest Service from the forest headquarters in Grants Pass, Oregon. The Forest Service has administratively subdivided the forest located in Curry County into three districts; the Powers

[1] Bueter, et al., 1976, Timber for Oregon's Tomorrow, Forest Research Laboratory, O.S.U. Research Bull. 19.

District (northern area), the Gold Beach District (central area) and the Chetco District (southern area). Historically the National Forest has been managed under a coordinated series of plans which generally reflect a balance between timber production, watershed and wildlife protection and recreational uses which is collectively known as "multiple-use management".[1] Timber harvest has generally been carried out under the concept of "sustained yield" on these federal lands. This concept is defined as "the achievement and maintenance in perpetuity of a high-level periodic output of the timber resource of the National Forest without impairment of the productivity of the land".[1] In practice, sustained yield amounts to allowing only as much timber to be cut as can be produced by new growth by the forest in an overall management program. Therefore, timber production on federal lands has been limited to an "allowable cut" on an annual basis in order to maintain the sustained yield. Approximately 55% of the land area and 75% of the commercial sawtimber in the county are managed under this form of plan.

The Bureau of Land Management controls 6% of the total land area in the County. BLM lands are managed under sustained yield principles in order to provide a permanent source of timber supply, watershed protection, stream flow regulation, and recreation.

While public lands are managed under the concept of multiple use, private timberlands are often managed primarily for timber production with recreation, grazing, and other uses being of secondary importance. The management activities on these lands are controlled by the Forest Practices Act which established minimal standards for reforestation, road construction and maintenance, site preparation, harvesting, chemical applications, and slash disposal. Approximately 22% of the County's commercial forest land is in private forest industry ownership, and about 20% is in other private ownership (Ref. Table 4.2.B). The importance of encouraging full utilization of the resource has been widely recognized and has fostered growth of a number of incentive programs to encourage non-industry woodland owners to manage their parcels for commercial timber production to help alleviate the coming declines in sawtimber volume on industry owned lands.

The State Department of Forestry's service forestry program is designed to assist non-industrial woodland owners with technical information, help in pre-

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[1] U.S. Forest Service - USDA (1976 (1979).

preparing management plans, assist in qualifying for federal incentive programs, help in obtaining nursery stock, and give preliminary assistance with forest tax laws.

The Agricultural Conservation Program and the Forestry Incentives Program are federal programs designed to assist in increases in conversion of understocked forest lands. The goal of the Forestry Incentives Program (FIP) is to increase timber production on high site class lands. The FIP is limited to $10,000 per year to a single property owner and parcels must be between 10 and 1,000 acres, with $10,000 basic allocation added this year and the remainder in carry-over and long term agreements. The future of the FIP program is uncertain due to funding restrictions by the State of Oregon.[1]

In addition to these incentive programs to encourage conversion of understocked lands, the State of Oregon has developed special assessment programs for forest lands. Under the Western Oregon Forest Land and Severance Tax, ORS 321.257, forest land is valued according to its use in forest production, and when harvested a yield tax is levied on the appraised stumpage value. Under Western Oregon Small Tract Optional Tax, ORS 321.705, the value of the forest land is dependent upon the site quality. Parcels under this program must be between 10 and 2,000 acres in size, and the predominant DBH, diameter at breast height, of the stand must be under 8 inches. Declassification from this option is automatic when the average age of the stand reaches 90 years.

Large tracts of industry owned forest lands are elegible for the benefits of the Western Oregon Forest Land and Severance Tax. Reforestation is currently regulated through the Forest Practices Act, adopted in 1972. Until recently, conversion of large brushfields was not covered by existing state or federal incentive programs. In October of 1980, a federal bill was passed which allows reforestation expenditures to be amortized over a seven year period up to a maximum of $10,000 per year.

The comprehensive plan facilitates management of forest lands by providing a measure of protection to these lands through the policies and implementation measures of the plan. The principal function of the plan is to identify forest lands within the county and place them within a plan designation that provides for commercial forestry use of the land. This aspect of the comprehensive

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[1] Rick Block (1981) ASCS, personal communication, 4/2/81.

plan provides a measure of assurance for those land owners who undertake reforestation or other management programs that the programs will be successfully completed without the encroachment of conflicting land uses.

4.2.4 Forest Income

Forest products are the largest single sector of the Curry County economic structure both by employment and by value of product. Table 3.5.1 indicates that the lumber products sector of manufacturing employs 18.9% of all employment in the county. This is the largest single private employment sector that is identified in that analysis. If one adds employment from other sectors such as construction, transportation, service, etc. that almost exclusively serve the forest products industry the total private employment in the county that is dependent upon the forest resource is probably in excess of 25% of the work force.

In terms of employment, one must also look at the government employees who work for the Forest Service in direct relation to timber harvest on public lands. If the commercial production drops on these lands undoubtedly the number of public employees related to this activity will also drop. Such a decrease in the public sector could potentially affect 5% of the total employment in the county.

Forest industry employment has declined through the years in direct relation to the decline in timber production. In 1960 the industry supplied 1,880 jobs representing 42.6% of the total employment in the county. By 1979, this had dropped to 1,110 jobs representing 18.9% of total employment. This decrease in timber related employment is expected to continue based on the decrease in timber harvest in future years.

Forest products are the largest single sector of the Curry County economy based on the gross value of the resource product (see Table 3.5.C). The value of this product is 75% of the total value of the resource product in the county and is five times the value of the agricultural product which is the next smaller sector. This information indicates that forest products provide by far the greatest amount of income to the county ecomony and further decline of this sector will cause general economic recession to the area.

The decrease in timber harvest on public lands also has an affect on the fiscal basis of Curry County government. Curry County receives revenue from the timber harvest on certain public lands as 1) a general revenue from timber receipts and 2) revenue from Oregon and California Land Grant (O & C Lands). These revenues are paid to the counties on the basis of the timber harvested from them. As the timber harvested from them decreases, the amount of revenue paid to the county decreases which results in changes in the tax structure and service programs of the county.

4.3 FOREST PROBLEMS

The comprehensive plan recognizes several problems with respect to the present and future use of forest lands that are land use planning issues. First and perhaps the most important issue is that the county needs to conserve the forest land base in order to help insure an adequate supply of timber. Residential uses not only erode the land base, but can impede management of adjacent forest lands and forest activities through objections raised concerning noise, chemicals, visual impact of logging activities, slash disposal and traffic, and increased risks of forest fire. It must be recognized that areas of rural residential development are already intermixed with commercial timber lands. The plan will encourage infilling in those areas already affected through the committment process and minimize further erosion of resource lands. In those areas already committed to residential use, adjacent to resource areas, strategies will be developed to help minimize the impact of conflicting uses, through set-backs of dwellings, disclosure of possible conflicts, notification procedures to alert adjacent forest land owners, fire preventive measures, i.e. fuel breaks, water storage, and adequate access for safety equipment.

As noted earlier, timber harvest levels in Curry County peaked in 1960 and have been falling ever since. Much of the land that was logged prior to 1972 was never replanted so that there is no reproduction of timber from those years to replace what was logged. The State of Oregon adopted the Forest Practices Act in 1972 which requires replanting of logged areas on private lands as a method of continuing the timber resource. However, there are extensive areas within the county that have not been adequately reforested so that much of the commercial forest land is understocked. Existing incentive programs are currently underutilized in Curry County such that only 200 acres per year of private land are converted into productive forest land through the Forest Incentive Program.[1] Unless more land is replanted or converted from brushland to commercial forest land the county timber harvest from private land will drop to that level which the federal management plans allow from the public lands.

[1] Rick Block (1981) ASCS personal communication, 4/2/81.

With respect to federal lands there has been a significant decrease in the volumes of sawtimber cut from these lands to the increase in the amount of land held in the reserve classification. In Curry County national forest and private lands are held in both wilderness and wild and scenic river classification which prohibit timber harvest and future production. Areas included in these reserved classifications have been significantly enlarged by federal legislation in the past decade so that commercial production from these lands cannot be utilized to sustain the overall timber yield of the county.

In summary it is easy to see that commercial forest production in Curry County has peaked and is in decline and that the level at which it will be sustained in the future is not established at this point in time. The level at which timber production can be sustained will be determined by several factors:

1) the federal policy which establishes the management of timber on public lands;

2) the federal policy which establishes which lands will be held in a "reserved" class (wilderness, wild and scenic river, environmentally sensitive);

3) the management policies of forest industry corporations with respect to reforestation of their lands;

4) the management policies of small lot forest land owners with respect to reforestation, brushfield conversion, and other incentive programs;

5) the implementation of the comprehensive plan with respect to forest lands to allow some degree of stability in planning so that forest land owners can invest in long term reforestation projects with assurance that they will not be impacted by conflicting land use.

4.4 PARCELIZATION OF FOREST LANDS

Generally forest lands are parcelized in large tracts that comprise even larger holdings of forest industry corporations (See Forest Industry Land Map). These corporate holding are not necessarily contiguous block areas of ownership but rather are interspersed with lands in other private ownerships and public lands. This type of parcelization is predominantly in the eastern three-quarters of the county including those private forest lands located within the National forest.

A second distinct type of forest land occurs in the northern part of the county especially north of the northern boundary of the National Forest, where there is an intermixture of forestry and agricultural grazing uses on a large scale. In this area there are large ranches that have both forested and pasture areas on contiguous tracts with the forest uses being compatible with the ranching operation. This type of situation is best typified by the area north of Floras Creek to the county line.

The third type of forest parcelization is in areas of forest land where the land has been already parcelized into tracts of 40 acres or less but is of forest capability. These areas are generally closer to the coast and along established roads and highways. In these areas forest lands are generally parcelized in tracts too small for forest industry corporations to maintain and manage for commercial timber production but still have forest capability. The comprehensive plan recognizes these lands as forest lands of the woodlot tract type and has designated them for forestry or agricultural use. However, since these tracts are often intermixed with other uses including rural residential and rural commercial operations they lend themselves to intensive management by resident owners who utilize techniques which are more compatible with the adjacent conflicting uses. This type of forest land also lends itself to those incentive programs which are designed for the small tract forest land owner to help with reforestation, brushfield conversion and firewood production. Woodlot tracts also provide a needed resource land buffer between residential, commercial and other developmental uses and the commercial forest lands.

4.5 LOT SIZE DETERMINATION FOR FOREST LANDS

Commercial forest lands have been placed in a Timber zone that allows commercial forestry uses and other compatible uses exclusively. The Timber zone has a lot size guideline of 160 acres which has been established on the basis of it being a more or less standard sized parcel of land. Most commercial forest lands are divided along government survey lines utilizing land tracts as sections or parts of sections. One quarter section of land (160 acres) is a practical unit of land for commercial forest management purposes where the standard forest practices of clear cut, slash disposal, chemical vegetation control, etc. are used. The Timber zone, however, does not specify a minimum lot size so that small parcels can be created for resource purposes subject to to meeting the division of land criteria specified in the zone.

The Forestry Grazing designation is applied to lands which either have a combination of agricultural and forest uses or have capability for either use. Therefore, divisions of land must be considered in terms of either agricultural or forestry uses or a combination of these uses.

4.5.1 Farm/Forest Use Determination

A determination of the principal resouce use of the land shall be based on the following factors:

1. the SCS classification of the soil and its agricultural capability;
2. the cubic foot site class of the land and/or other indicators of forest capability;
3. the present use of the land;
4. the present natural cover of the land; and
5. other factors which have bearing on the agricultural or forestry use of the land such as topography, exposure, irrigation water availability, etc.

An assessment of the specific parcel of land shall be made by the Planning Director in terms of the above information which is provided by the applicant. Once the proposed resource use of the land has been ascertained then the proposed division of land shall be submitted to the Planning Commission on the basis of the criteria defined in the Forestry Grazing (FG) zone for divisions of farm parcels, forest parcels, or both.

4.5.2 Resource Management Plan

Proposals for divisions of land or the siting of a forest dwelling on agricultural land or combinations of forest and agricultural land shall be supported by a management plan for the specific site to provide the factual basis for the decision of the Planning Commission. The resource management plan submitted with the proposed land division or proposed forest dwelling must include the following information.

1. A map of the subject property including some indication of ground slopes; and
2. A determination of soil types and other significant factors present on the property; and
3. A report which contains the following:

A. For Agricultural Land:

1) the SCS classification of the soil and its agricultural capability;
2) the type of grass, legume, or crop either present or to be planted to bring each parcel proposed to maximum yield;
3) the type and amount of soil amendments (lime, gertilizer, etc.) or treatments necessary to achieve maximum yield on each parcel proposed in the land division;
4) the type, quantity and source of irrigation water to be appliedto the land to achieve maximum yield if required, and
5) the stocking levels and field rotation of stock to reach maximum yield on each parcel proposed in the land division.

B. For Forest land:

1. the cubic foot site class of the land and/or other indicatiors of forest capability;
2. the type, age, class, and estimate of the quantity of timber present on the property;

3. the type of forest or woodlot management practice necessary to bring each parcel proposed in the division of land into maximum forest yield;
4. The type, quantity, and location of all trees which must be planted to bring each parcel proposed into maximum forest yield; and
5. Any amendement or treatments to the land or trees which must be carried out to assure maximum yield from each proposed parcel.

This management plan provides information to assist the county in determining (1) whether a forest dwelling would be accessory and required for a forest use, or (2) whether a division of resourceland satisfies the requurements for divisions of land sections A through C contained in the county's four resource zones. Basic findings of fact will be developed that will become a part of the decision to allow or deny the application and as such will become a part of the permanent record of the county regarding the application.

4.6 GENERAL PLAN POLICIES FOR FOREST LAND

Curry County has adopted the following general plan policies for forest:

1. Curry County will apply forest zoning to all identified forest lands which are not committed to nonresource use in order to maintain such lands in forest uses as required by Statewide Planning Goal 4.

2. Curry County encourages the maintenance of maximum productivity of commercial forest lands through the implementation of its forest land zoning.

3. Curry County recognizes those non-conforming uses in existence on forest lands and will allow them to continue under the non-conforming provisions of the zoning ordinance.

4. Curry County encourages infilling those areas already affected by rural residential development and maintaining forest uses along residential fringes.

5. Curry County will require that non-forest uses adjacent to forest lands be subject to the provision of adequate setbacks from the forest land, disclosure procedures to alert land owners of possible future commercial timber harvest and forestry activity and to make provisions for adequate fire preventive measures.

6. Curry County recognizes the necessity for and supports the implementation of the Oregon Forest Practices Act.

7. Curry County supports reforestation and brushfield conversion and seeks to increase utilization of existing incentive programs and encourages the development of new incentives for this purpose.

8. Curry County will not approve an exception to Goal 4 for a comprehensive plan change from a forest designation to any nonresource plan designation if the subject property is in a special property tax assessment for forest use.

In addition, Curry County adopts as a general policy factual material and economic policies of the Comprehensive Economic Development Strategy 1980-81 Action Program, CCD Economic Improvement Program. This policy has the following specific objectives with regard to forest lands in the county:

Objective 1. Promote federal forest management policies to maintain and improve the timber land base.

Objective 2. Optimum multiple use and intensive forest management of all commercial forest land.

Objective 3. Pursue all options available to reduce short term and long term timber supply deficiencies.

Objective 4. A more complete utilization of the forest resources of the district by reducing waste.

Objective 5. Greater development of congeneration of energy from wood waste.

Objective 6. Greater development of competitive modern forest products, by smaller, specialized firms as well as larger integrated concerns.

Objective 7. Greater research and development in markets, resources, products, production, and special problems affecting the forest products industry.

Objective 8. Obtain federal assistance in economic adjustment efforts to offset the federal role in the decline in timberbased employment.

Objective 9. Greater manufacturing within the district of the timber harvested in the district.

Objective 10. Retention of forest land for forestry use, and reduction of uncertainty regarding the status of forest lands in land use and planning by adoption of a comprehensive plan.

5. NATURAL RESOURCES

5.1 INTRODUCTION

This chapter of the Curry County Comprehensive Plan is intended to discuss those issues relevant to Goal 5 Open Spaces, Scenic and Historic Areas, and Natural Resources as defined by the LCDC Goals and Guidelines.[1] Goal 5 has the intent of conserving open space and protecting natural and scenic resources within the county. In addition, the goal requires protection of these resources as follows:

> "Programs shall be provided that will:
>
> (1) insure open space;
> (2) protect scenic and historic areas and natural resources for future generations; and
> (3) promote healthy and visually attractive environments in harmony with the natural landscape character."

As with all other aspects of developing the comprehensive plan for Curry County; the assessment of natural resources requires that an inventory of the resources be prepared, the inventory then be reviewed with respect to potential or existing land use conflicts, and then plan policies with implementing measures be developed to resolve the conflicts and protect the resource. Curry County has completed its assessment of county natural resources as described in this chapter.

5.1.1 Resource Definitions

There are many definitions of natural resources and priorities as to which resources should be considered for protection; however, the Statewide Planning Goals specifically state which resources are to be considered in the development of a comprehensive plan. Goal 5 states the following with respect to resource inventory requirements:

> "The location, quality and quantity of the following resources should be inventoried:
>
> a) land needed or desirable for open space;
>
> b) mineral and aggregate resources;
>
> c) energy resources;
>
> d) fish and wildlife areas and habitats;

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1 LCDC (1978)

e) ecologically and scientifically significant natural areas, including desert areas;

f) outstanding scenic views and sites;

g) water areas, wetlands, watersheds and groundwater resources;

h) historic areas, sites, structures, and objects;

j) cultural areas;

k) potential and approved Oregon recreation trails;

l) potential and approved federal wild and scenic waterways and state scenic waterways."

Curry County has inventoried these resources by locating them on inventory maps and by describing them, where necessary, as part of the plan text.

Goal 5 also contains the following explicit definitions:

Cultural area - refers to an area characterized by evidence of an ethnic, religious or social group with distinctive traits, belief and social forms.

Historic Areas - are lands with sites, structures and objects that have local, regional, statewide or national historical significance.

Natural Area - includes land and water that has substantially retained its natural character and land and water that, although altered in character, is important as habitats for plant, animal or marine life, for the study of its natural historical, scientific or paleontological features, or for the appreciation of its natural features.

Open Space - consists of lands used for agricultural or forest uses, and any land area that would, if preserved and continued in its present use:

(a) conserve and enhance natural or scenic resources;

(b) protect air or streams or water supply;

(c) promote conservation of soils, wetlands, beaches or tidal marshes;

(d) Conserve landscaped areas, such as public or private golf courses, that reduce air pollution and enhance the value of abutting or neighboring property.

(e) enhance the value to the public or abutting or neighboring parks, forests, wildlife preserves, nature reservations or sanctuaries or other open space;

(f) promote orderly urban development.

Scenic Areas - are lands that are valued for their aesthetic appearance.

Wilderness Areas - are areas where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. It is an area of undeveloped land retaining its primeval character and influence, without permanent improvement or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) may also contain ecological, geological, or other features of scientific, educational, scenic or historic value.

These definitions were used in the preparation of the data for inventory purposes and have been adhered to in the plan development process.

The inventory process for natural resources under Goal 5 was amended to require that an inventory include a determination of location, quality, and quantity of each resource site. Using the best data available about natural resources the county then has three options in preparing the inventory:

(1) based on the data available the county can determine that a particular resource site is not important enough to warrent inclusion in the plan inventory, or is not required to be included in the inventory based on specific goal standards;

(2) when some information is available, indicating the possible existance of a resource site but that information is not adequate to identify the location, quality and quantity of the resource site the county should only include the site in the comprehensive plan inventory as a special catagory. However, the county must express its intent relative to the resource site through a plan policy to address that resource site and proceed through the inventory process at a future time.

(3) when information is available on location, quality and quantity, and the county has determined the site to be significant or important the county must include the site in the inventory and indicate the location, quality and quantity of the resource site.

Curry County has prepared a general inventory of all Goal 5 resources and made a determination as to which options each site identified will be treated by the plan.

5.1.2 Resource Planning Process.

The planning process utilized to establish a comprehensive plan for the natural resources of the county involves several steps in which decisions are made to lead to a final conclusion regarding use of the resource.

The first step of the process is to identify the resource as described in section 5.1.1 and compile an inventory. The next step requires that the county identify conflicting uses with the identified resource. A conflicting use is one which, if allowed, could negatively impact the resource site. Where conflicting uses have been identified the impacts must be considered by analyzing the economic, social, environmental and energy consequesces (ESEE analysis).

The analysis of conflicting uses leads the county to several options regarding the resource site in terms of the comprehensive plan.

(1) preserve the resource site by adopting plan policies and implementation measures that protect it;

(2) determine the economic, social, environmental and energy consequences of identified conflicting uses to explain the decision the county has made with regard to the site on the basis of these consequences the county then must develop a program to resolve the conflict and achieve a solution which will:

a) protect the resource site and prohibit the conflicting uses;

b) allow the conflicting uses fully notwithstanding impact to the resource site.

c) limit the conflicting uses so that both the conflicting use can exist and still protect the resource site in some limited way and to some desired extent.

Through this process the county has placed some stability upon the identified resource sites and their future use during the planning period.

5.2 OPEN SPACE LANDS

Open space consists of lands used for agricultural or forest uses, and any land area that would if preserved and continued in its present use:

1) conserve and enhance natural or scenic resources;

2) protect air, streams or water supply;

3) promote conservation of soils, wetlands, beaches or tidal marshes;

4) conserve landscaped areas such as public or private golf courses, that reduce air pollution and enhance the value of abutting or neighboring property;

5) enhance the value to the public of abutting or neighboring parks, forests, or sanctuaries or other open space;

6) enhance recreation opportunities;

7) preserve historic sites; and

8) promote orderly urban development.

According to this defination, open spaces are areas that are to remain structurally undeveloped other than for support facilities. These may include both designated open space areas such as parks, playgrounds, golf courses, etc., or public and private lands in use for agriculture, forestry, open area recreation and so on.

Most of the open space in Curry County is under Federal ownership with 52% belonging to the Siskiyou National Forest and 5% under BLM ownership. These lands consist of lands used for less intensive open space activities such as hunting, hiking, timber management and wildlife which require larger quantities of land. Development on these lands are limited to campgrounds, roads and trails. Other public ownerships are broken down as follows:

TABLE 5.2.A OPEN SPACE LANDS

Agency	Acreage	%	General Use
Federal	692,224	65.00	Forest
State	10,650	1.00	Parks and Beaches
County	2,274[1]	0.22	Parks and Forest
Cities	126[1]	0.01	City and Regional Parks
Special Districts	474[1]	0.04	Parks, School Fields, and Forest
Total Public	705,748	66.27	
Total County area	1,064,960	100.00	

Sources: [1] Oregon State Department of Revenue, 1977

Also included as open space are the lands in agricultural use as farm or pasture land and private timber holdings. These lands make up a large portion of the non-publicly owned land in Curry County. In addition to adding to the aesthetic qualities of the county, these lands provide area for wildlife habitat and recreational use on a land owner permission basis.

The extent of the open space lands is best depicted on the Forest Lands Map of the Inventory Map atlas since it shows the following areas referred to above:

1) the boundary of the Siskiyou National Forest;

2) public and private forest lands outside the National Forest;

3) State parks (also identified on Recreational Resources Map); and

4) County parks (also identified on Recreational Resources Map).

Mapping of City open space lands can be best identified by consulting the comprehensive plans for the cities of Port Orford, Gold Beach and Brookings.

As can be seen from Table 5.2.A, Curry County has abundant open space lands with almost 60% of its land area fitting the definition of open space. This amounts to almost 35 acres of open space per person living in the county. The presence of such large areas of open space adds to the attractiveness of the county both for visitors and residents.

The abundance of open space available in the county is reflected in the lifestyle of the county residents by their great interest in outdoor recreation.

5.3 MINERAL AND AGGREGATE RESOURCES

Curry county has a wide variety of mineral resources ranging from ores of gold, silver, platinum, copper and nickel to gravel, sand and rock as building and construction material. The presence of these resources in the county is related to the complex geologic history of the area and the diverse bedrock geologic units exposed in this geologic province. Mineral resources of the county are generally scattered evenly over the entire area of the county; although certain ores are confined to specific sites or districts.

Preliminary inventory mapping of the mineral and aggregate resources was done on a county-wide basis using a base map identical to other resource inventory maps. Basically, the inventory data consists of plotting mines and prospects, stone quarries, and sand and gravel pits by location. In addition, the county mapped the known extent of marine terrace deposits known to contain chrome "black sands" and the extent of nickel laterites. The source of the data for this map was from a study of the mineral resources of Curry County by the State of Oregon.[1] This reference contains as much information about the locations, extent of the mineral deposits and potential for future production as is presently known.

5.3.1 Chrome

Chromite is the only commercial source of chromium metal and is found in minable quantities in Curry County. In the county chromite occurs in the ultramafic rocks (periodite and serpentinite) and in placer deposits of marine black sands. Chromite production in the county has been restricted to periods of wartime emergency. Chromite was first mined in 1918, and then again from 1941 to 1958. The largest producer was the Sourdough (Baldface) mine which had a total production of 1,567 long tons.[1] In addition to the chromite, black sand deposits are found on the coastal terraces and beaches. The black sands contain several minerals of potential value, including gold, platinum, magnetite, garnet, zircon, and ilmenite. Several of these black-sand deposits have been explored and periodically mined since before the turn of the century. Production data from these sources does not indicate very sizable production from any of the black sand deposits.

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[1] DOGAMI (1977).

5.3.2 Gold

Gold and gold mining has played an important part in the history of Curry County from the standpoint of attracting people to the area and bringing about the first settlement of the county. During the 1850's, the first mining activity in Curry County was gold prospecting along the beaches in the vicinity of Port Orford and Gold Beach. The more important gold producing beaches were at Ophir, Pistol River, Gold Beach, Port Orford and Cape Blanco.[1] The best producing river gravels were the Sixes River, upper Chetco River and Boulder Creek and Mule Creek on the Rogue River. Total production of gold from the county are incomplete but Curry County is one of the smaller gold-producing counties in the state ranking behind the neighboring Jackson, Josephine, Douglas and Coos Counties. Future potential for gold production in Curry County is probably limited to mining of deposits in the Mule Creek and upper Chetco areas and the remote possibility of developing offshore black-sand deposits.[2] Gold prospecting, however, does provide a form of recreational activity to many county residents especially in the Sixes River area.

5.3.3 Nickel Laterites

Nickel laterites are a soil type that is derived from the chemical weathering and leaching of peridotite and contain nickel. Peridotite and serpentine rock types contain about 0.2% nickel but the weathering process of converting the rock to a soil concentrates the nickel in the soil.[2] These nickel-rich soils are found in various parts of the county and are probably the only ore that has potential for commercial production in the foreseeable future.

Nickel laterites are predominantly located in the southeastern part of the county specifically in the vicinity of Red Flat (the upper Hunter Creek area) and Chrome Creek drainage (see Mineral Resource Inventory Map). There are seventeen separate areas of nickel-bearing laterite in Curry County which have been described in detail in the Department of Geology and Mineral Industries report.[2] Several of these have great potential for future production subject to the world market potential for nickel and reclamation costs following strip mining. The world market picture is improving because similar laterite deposits in Del Norte County, California are now undergoing preliminary development and sampling of the Red flat deposits in Curry County for mining is presently underway.

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1 Horner (1918)
2 DOGAMI (1977)

5.3.4 Other Minerals

Curry County has also had production or is known to have potentially minable quantities of the following materials: cobalt, copper, silver, iron, managnese, mercury, platinum, asbestos, borax, and gemstones. Most of these occurrences are widely scattered throughout the county and in limited quantity so that future production of these ores would probably be limited to by products from the production of chrome or nickel. There are no commercial or presently economically feasible coal deposits in Curry County and the geologic formations in the county are not favorable for the production of oil and gas so the chance of any future energy production from fossil fuels within the county is essentially non-existant.[1]

5.3.5 Sand, Gravel and Rock

Sand, gravel and stone have historically been mined and are presently being mined as construction material. The mined products include material mined as pit or quarry run which then may or may not be processed by crushing, screening, washing and drying. Over 200 rock material sites have been located within Curry County including sand and gravel pits and stone quarrys (see Mineral Resources Inventory Map). The location of these sites was established from data obtained from the Oregon Department of Geology and Mineral Industries.

Generally sand and gravel deposits are located along the rivers and streams of the county where the material is scraped up (scalped) into a pile from the river gravel bar. This process is utilized so that the gravel removed will not affect the river channel itself or the riparian environment. Most sand and gravel removal operations are located in the rural areas of the county so that they are not impacted by conflicting uses; however, removal operations in the lower Rogue and Chetco Rivers are impacted by residential uses, recreational uses and existing public facilities.

Over 170 stone quarries have been developed in Curry County utilizing materials from various types of bedrock (see Mineral Resources Inventory Map). A listing of these quarry sites is provided in the Department of Geology and Mineral Industry report.[1] Most of the stone removed from these quarries is used for fill, road construction, revetment depending upon the quality of the material. In some cases rock is crushed and screened at the quarry site to provide aggregate for concrete or asphalt. Most of the quarry sites in the county are located in areas where they are not impacted by conflicting uses;

[1] DOGAMI (1977)

TABLE 5.3.A

SAND, GRAVEL, STONE PRODUCTION - CURRY COUNTY

		Thousand short tons	Thousand dollars
1977	Sand and gravel	74	$121
	Stone	--	125
1976	Sand and gravel	59	94
	Stone	3	5
1975	Sand and gravel	143	237
	Stone	7	15
1974	Sand and gravel	102	57
	Stone	79	75
1973	Sand and gravel	121	160
	Stone	632	800
1972	Sand and gravel	235	339
	Stone		
1971	Sand and gravel	82	141
	Stone		

Source: DOGAMI (1977)

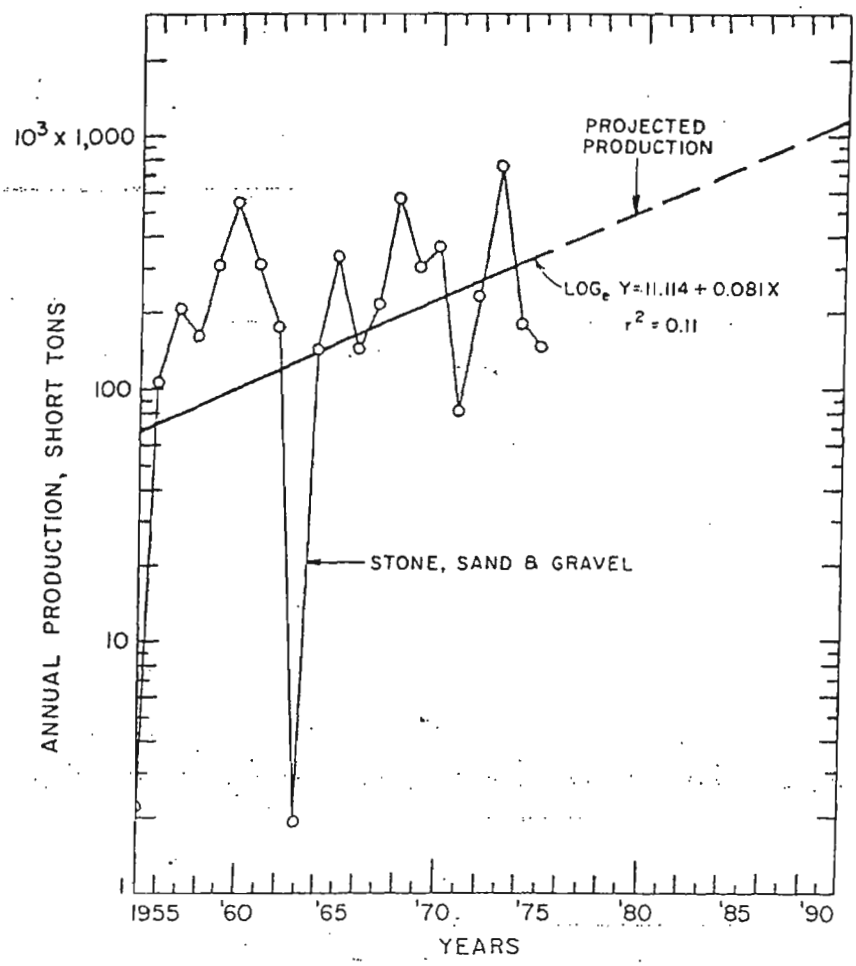


FIGURE 5.3.A

Source: DOGAMI (1977)

however; quarries located along U.S. Highway 101 and the main county roads near population centers are impacted by residential uses.

Table 5.3.A shows the production of sand, gravel and stone from the county during the period 1971-1977 and the value of that product. Figure 5.3.B is a plot of sand, gravel, and stone production from the county and a projection of future production to the year 1995. Future production of these materials is related to a number of factors including population growth, construction starts, availability of funds for public works projects, and general economic climate. Generally the size of the population has the major effect on the need for sand, gravel and stone, however, in Curry County the large fluctuations shown in the production of these materials in the past has not been related just to population growth but rather to the needs generated by special projects such as the construction of highways, jetties, etc. Assuming that future needs will be related to population growth Curry County has enough sand and gravel to last for the next 20 years based on the present rate of consumption and enough quarry stone to last for the next 30 years. Sand, gravel and quarry stone remain as the only mineral resource still in production in Curry County so these sites are reviewed and evaluated in the Natural Resources Document as required by Goal 5.

5.4 ENERGY RECOVERY SITES

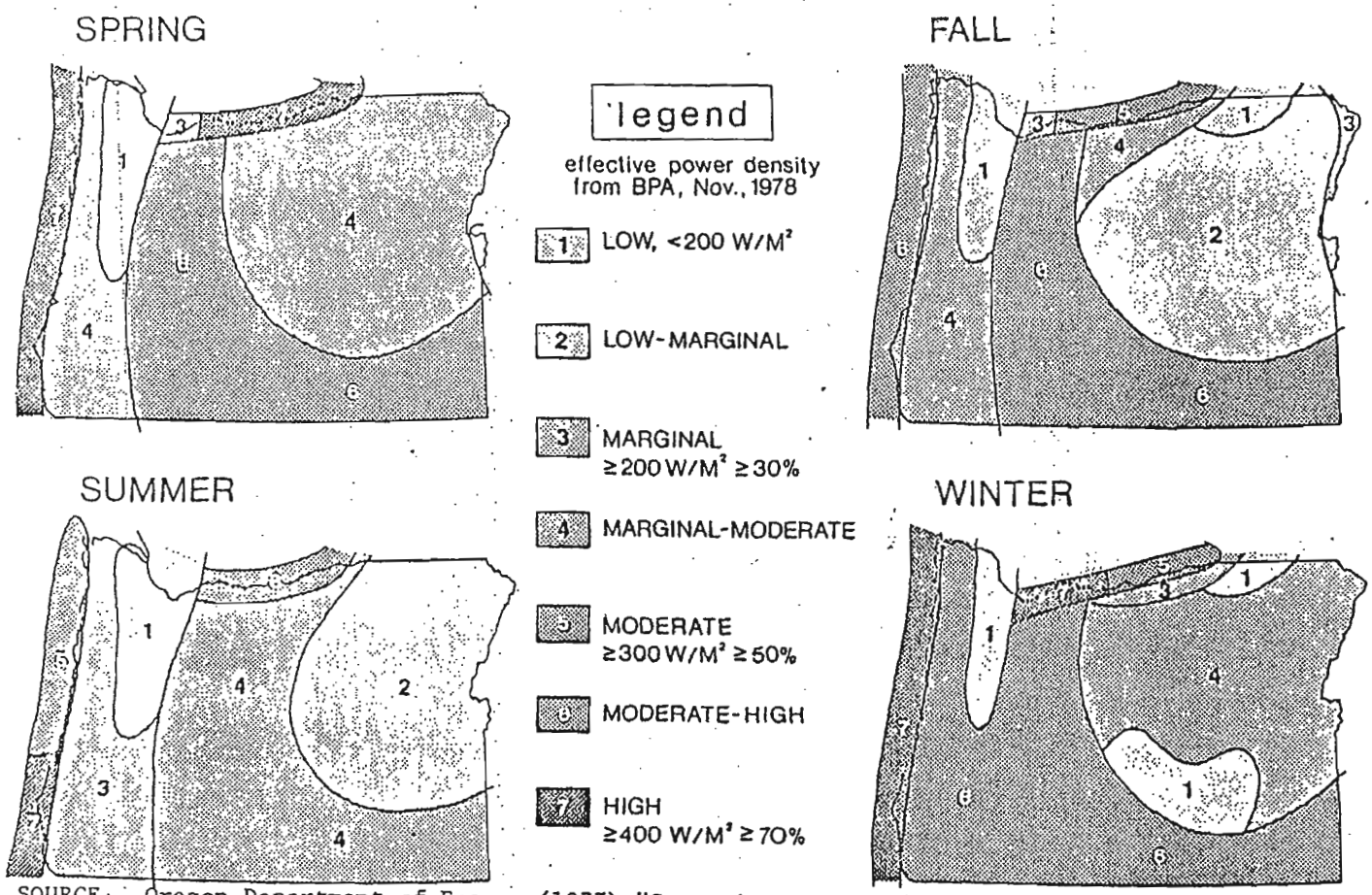
There are many possibilities for the recovery of alternative sources of energy within Curry County among which are the following:

1) windpower,
2) hydroelectric power,
3) solar, and
4) use of wood waste material.

Wind power or the extraction of energy from the wind as a renewable source of energy on a commercial scale is a likelihood in Curry County during the next 20 years. The persistent strong winds of the coastal area of the county are a potential source of renewable energy that can be utilized by modern turbine generators.

Figure 5.4.A shows the wind potential by season for the State of Oregon as can be seen the coastal area of Curry County is among the highest wind power densities in the entire state.

SEASONAL WIND POTENTIAL IN OREGON



SOURCE: Oregon Department of Energy (1977) "Community Energy Planning".

FIGURE 5.4.A

The Port Orford-Cape Blanco-Langlois area of Curry County is presently being studied as a prime location for the development of wind power generation facilities. Anemometers have been installed on Cape Blanco and in the Langlois area to provide a suitable data base for the evaluation of the energy potential of the area. Pilot turbine systems are also proposed for the Cape Blanco and Langlois areas to provide for the evaluation of the technology. Presently the technology seems to involve arrays of wind turbines arranged to individually generate energy in concert as a "wind farm". The individual wind turbines range in size from relatively small units to units capable of generation of several megawatts. The relatively flat area between Cape Blanco and Langlois is the best single area for the construction of wind farms because of the lack of topographic obstructions to the wind and buildable land to erect turbines in a geometric array. This area is predominantly in agricultural use for grazing land and is designated for agricultural use by the comprehensive plan. Wind generation facilities and agricultural uses are compatible and should not create any land use conflict. However, the presence of a state airport on Cape Blanco could create a conflict through the potential impingement of controlled airspace by individual turbines.

Seven potential hydroelectric dam sites have been identified within Curry County by the Oregon Water Resources Department (see Water Resources - Inventory Map).[1] These sites are deemed as suitable for dams and water impoundments on the basis of stream flow, geologic conditions, topography and fish habitat. Although all of the sites are suitable for impoundment, construction of energy generation facilities may not be possible at each site.

The county has also identified the Buzzards Roost dam site on the Illinois River as a potential water impoundment and hydroelectric generation site because of its great potential for power generation. However, this site is presently restricted from development by the designation of the Illinois River as a state scenic waterway.

In addition there are numerous small streams within the county that have potential for low head (small dams) hydroelectric power generation. The steep topography of the coastal mountains gives rise to streams that flow rapidly to the ocean with sufficient energy for the generation of electricity on a small scale. Individual sites for low head generation facilities have not been determined but most streams in the county have potential for such facilities. Small dams utilizing pen stock turbines have been proposed for two streams

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[1] Water Policy Review Board, (1980).

2) Wildlife Resources - showing major big game range, peripheral big game range, impacted big game range, and the boundary of the elk range.

Although these maps do not show specifically where wildlife is located or numbers of animals they do show generally where these resources may be found in the county.

5.5.1 Game Fish

The rivers and streams of Curry County are particularly noted for their game fish and sport fishing is generally popular throughout the area. Estuarine and nearshore ocean waters are also abundant with a wide variety of anadramous and marine fish which provide an additional sport, as well as, commercial fishery. Several off shore areas along the county coast contain kelp beds which are productive fishing areas for offshore fishing.

The wildlife inventory shows all those streams which are known to have anadromous fish runs of salmon and steelhead. The map generally shows the length of the stream drainage which is known to have runs of fish. The Oregon Department of Fish and Wildlife maintains a fish hatchery on the Elk River. At present, fall Chinook are planted into the Chetco and Elk Rivers; steelhead into the Rogue and Chetco; trout into the Chetco and Pistol Rivers, Hunter Creek, Floras Creek and Garrison Lake and spring Chinook into the Rogue River.

Following is a listing of the fish which are common to the Curry County Area.

Game Fish

Chinook salmon	sea run cutthroat trout
Coho salmon	steelhead trout
rainbow trout	large mouth bass
	sturgeon

Offshore fish:

silver perch	flounder
snapper	ling cod
anchovy	striped perch
halibut	kelp greenling
rock bass	striped bass
ocean perch	herring
	smelt

Other fish:

longnose dace	stickleback
speckled dace	red-sided shiner
lamprey	cottid
sculpin	sucker

in the county (Willow Creek and Pistol River) so that utilization of this technology is likely in the foreseeable future.

The potential damsites identified in the inventory are located on agricultural or forest lands so that there is essentially little or no conflict with these uses. The impoundment of water in agricultural areas is a compatible use because of the potential use of the water for irrigation during the summer. The principal conflict from the construction of dams is related to the potential damage to fishery habitat by water impoundment. These specific problems can only be resolved on the basis of the specific construction plans created for the actual dam.

The utilization of solar energy is feasible in Curry County but not on a commercial scale. There is sufficient solar energy to justify individual effort to utilize the energy in home or building construction and to perhaps augment water heating requirements. However, Curry County does not receive sufficient solar energy during the fall and winter seasons to suggest that any sizable amount of the area's energy requirement could come from the sun.

Utilization of wood, wood slash or other waste material has potential in Curry County. There are many areas where waste material is left over from logging operations, non-commercial trees and brush are available for fuel, and other waste materials are available which could be burned. The chipping and grinding of forest slash material and brush into "hog fuel" is carried out at various places and times in the county. This material is bulk shipped to industrial users for fuel to power industrial facilities. Curry County has constructed in the Brookings area adjacent to a lumber mill so that the mill could be a potential customer of any power that is generated. Wood itself is not presently utilized for commercial power generation any where in the county but is extensively used for home heating by individuals.

5.5 FISH AND WILDLIFE RESOURCE

Curry County has a wide variety of fish and wildlife present within the county due to the diverse natural habitat, extensive stream and river systems, and large tracts of open space. The presence of fish and wildlife in the county has been inventoried in a series of maps which show the presence of these resources on the basis of habitat. All inventory maps were prepared on the same base map as other resource inventories utilizing data provided by the Oregon Department of Fish and Wildlife. Two inventory maps which show fish and wildlife resources were prepared;

1) Wildlife Resources - showing anadromous fish streams, bird nest sites, and areas of bird use;

Table 5.5.A shows the estimated annual spawning escapement of anadromous fish in the county rivers:

TABLE 5.5.A

System	S. Chinook	F. Chinook	Coho	Steelhead	Cutthroat	Total
Chetco		25,000	5,000	17,000	5,000	52,000
Elk		12,100	800	3,500	2,800	19,200
Euchre		200		300	400	900
Hunter		1,000	100	1,500	1,000	3,600
Illinois		20,000	1,400	30,000	3,000	54,400
Pistol		2,000	200	1,200	4,000	7,400
Rogue	45,000	60,000	3,600	210,000	2,000	320,600
Sixes		2,500	300	2,500	3,000	8,300
Winchuck		2,000	200	1,500	1,500	5,200
TOTALS	45,000	124,800	11,600	267,500	22,700	471,600

As can be seen the major source of gamefish is the Rogue River which supplies almost 70% of the total anadromous fish in the county rivers; other major rivers are the Illinois, Chetco and Elk which provide another 25% of the total.

Although many of the anadromous fish found in county streams and rivers are planted from hatchery stock, there are also native fish found in some streams. Native anadromous fish populations have decreased in recent years due to degradation of stream habitat. Degradation of habitat has generally been due to the rise of water temperatures, increased sedimentation, obstructions of stream channels, and alteration of suitable substrate for spawning. Recently this trend has reversed through the implementation of the Oregon Forest Practices Act and zoning requirements for the protection of riparian vegetation; also a public-private effort has been started to improve the habitat qualities of many streams in the county and to plant new fish stocks.

Stream flows necessary for fish habitat are not a problem for most rivers and streams in Curry County due to the high rainfall and public ownership of most watershed areas. The Department of Water Resources has maintained a continuing program of stream flow measurement which establishes the minimum-flow conditions on most streams and rivers. The low-flow periods are generally July, August, and September, depending upon the summer rainfall pattern. At some times the low flow may approach the minimum flow requirements for fish habitat so that water extraction from the stream will be restricted. The largest demand for water extraction from most streams in the county is for bottom land pasture irrigation so that these uses are those that must be curtailed in order to protect the minimum flow. The limitation of water extraction from rivers

and streams is controlled by the state water-right process which is administered by the Oregon Department of Water Resources. The problem of stream flows dropping to the minimum necessary for fish habitat has developed only once in recent years which was during an anomalously dry year. At that time the minimum flow was protected by restricting irrigation water-rights on several county rivers and streams.

5.5.2 Big Game

Curry County has sizable populations of many big game species including the Roosevelt Elk, Black-tailed Deer, Black Bear, and Cougar. The Oregon Department of Fish and Wildlife has estimated the populations of these animals as shown in Table 5.5.B

TABLE 5.5.B

Estimated Big Game Populations in Curry County in 1970

Species	Estimated Population
Roosevelt Elk	400
Black-tailed Deer	10,800
Black Bear	3,150
Cougar	150

From: Wildlife Protection Plan for Curry County; January 13, 1981, Wm. W. Hines and Peter E. Perrin.

The inventory of big game in the county is on the basis of suitable habitat for deer and elk.

Big game habitat consists primarily of forest edges, i.e. areas where woodlots are adjacent to farmland, or where past logging activities have left mixed stands of mature trees, clearcuts and brushfields. The areas below the 2000 foot elevation are the most important because deer and elk utilize these areas during critical months. Changes in forest land habitat are primarily responsible for population fluctuations. The carrying capacity of the habitat is determined mainly by timber production, logging practices and logging activities. Generally, the creation of forest edge areas has benefited the deer and elk herds by creating new habitat.

5.5.3 Upland Game

Curry County has a diverse upland game population including many varieties of birds and squirrel. There are two general catagories in which upland game species can be grouped; those that require forest habitats and those that

utilize agricultural lands. Optimum habitats for these species are areas that have a water source, escape cover (brush areas), with a mixture of timber and prairies. The predominant species that utilize these areas include the band-tailed pigeons, blue grouse, ruffed grouse and mountain quail. Species that prefer agricultural lands include valley quail, mourning dove and ring-necked pheasant. These lands need escape and nesting cover, with fields of seed producing grass for feed.

Table 5.5.C gives the estimated upland game population in Curry County.

TABLE 5.5.C

Estimated Upland Game Population in Curry County, 1970

Species	Estimated Population
Ring-neck Pheasant	600
Valley Quail	4,100
Mountain Quail	18,000
Ruffed Grouse	7,400
Blue Grouse	10,000
Band-Tailed Pigeons	19,000
Doves	4,150
Silver Gray Squirrel	15,500

From: Wildlife Protection Plan for Curry County; January 13, 1981; by Wm. W. Hines and Peter E. Perrin.

Due to recent farming practices, the abundance of escape and nesting cover has greatly diminished adding to the degradation of the habitat. This is the result of the general clearing of brushfield areas for pasture or replanting in timber. Consequently agricultural use of the land in certain areas can be interpreted as a conflicting resource use. Overall impact of agriculture on the upland game in the county must be localized to those areas where grazing is the predominant agricultural practice.

5.5.4 Waterfowl

Curry County has a seasonal waterfowl population that utilizes the wetland areas that are predominantly found along the coast. Critical habitat for waterfowl includes marshes, slow meandering streams and shallow lakes. Waterfowl require nesting, feeding, and resting habitats; the most important being nesting habitat. The New River and Floras Creek complex offers a prime example of nesting habitat.[1] Tidal areas and

[1] Wildlife Protection Plan for Curry County, January 13, 1981, by Wm. W. Hines and Peter E. Perrin.

flooded agricultural lands provide the most important wintering grounds for waterfowl. Estuaries, small lakes and flood plains are also utilized by large numbers of migratory waterfowl in the fall and winter when the annual migration from Alaska takes place.

Table 5.5.D gives an estimate of the waterfowl population in Curry County.

TABLE 5.5.D

Average Estimated Waterfowl Population in Curry County

Species	Nesting Population	Winter Population
Geese	-----	100
Ducks	280	2,000
Coots	-----	2,000
Swans	-----	30
Snipe	-----	Migrant population

From: Wildlife Protection Plan for Curry County. Jan. 13, 1981, by Wm. W. Hines and Peter E. Perrin.

Sensitive habitats are diminishing in some areas due to filling and draining of wetlands and by elimination of riparian vegetation along watercourses.

5.5.5 Furbearers and Non-Game Wildlife

There are two catagories of furbearers present in Curry County, aquatic and terrestrial. Both of these groups of animals utilize the same types of habitat that have been identified for other game animals described above. Furbearers favor riparian vegetation, wetlands, ponds, streams and wooded areas found in the county.

TABLE 5.5.E

Estimated Furbearer Population in Curry County

Species	Estimated Population
Muskrat	900
River Otter	650
Beaver	800
Mink	1,000
Raccoon	2,713
Ringtail Cat	800

From: Wildlife Protection Plan for Curry County; Jan. 13, 1981; by Wm. W. Hines and Peter E. Perrin.

Conflicts often occur between the furbearer animals and other uses of man with beavers blocking culverts and with mink, otter, and raccoon killing poultry and other domestic stock.

Non game wildlife are those species which constitute the remainder of the wild animal community which are not classified as game animals. In terms of comprehensive planning the most important species are those wild species which appear to be threatened with extinction or are environmentally sensitive due to specialized habitat requirements.

The only non-game wildlife species which are of significance in the county are birds which provide nonconsumptive uses such as bird watching or bird feeding around their homes. The prinicpal non-game species which are identified by habitat or nesting site are the bald eagle, osprey, spotted owl, snowy plover, and great blue heron (see Wildlife Resource - Inventory map). These identified sites are intended to be protected to maintain the sub-populations of these species in the county.

5.6 ECOLOGICALLY AND SCIENTIFICALLY SIGNIFICANT NATURAL AREAS

A natural area is defined as a tract of land, or of land and water, that has been substantially retained in its natural character, is important as a plant or animal habitat which is or possibly should be set aside for the study and appreciation of its natural features and for the preservation of natural diversity. Natural areas provide the following:

1) living laboratories for monitoring changes in the environment and developing new land management principles;

2) they are reservoirs of genetic material by preserving wild species in a natural environment;

3) they are outdoor classrooms for learning and recreation sites for naturalists.

Curry County has inventoried natural areas based on an inventory of "Oregon Natural Areas" by the Nature Conservency.[1] Those sites which are identified in that study have been located on the Cultural Resources Inventory Map and are listed in Appendix 5-I.

Many of the sites identified are fully protected by virtue of being located within the National Forest, a state park, or private preserve. Those sites which are not under public ownership and are located in the rural parts of the

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[1] The Nature Conservancy (1977)

county are not impacted by conflicting uses. Uses that would be considered compatible with natural areas are educational uses, scientific uses, and recreational uses of the low-level non-consumptive nature.

Natural areas identified in the county are generally of two types; geological features or areas, and botanical areas. The geological areas are generally offshore reefs or rocks, and shoreline headlands of unique geomorphic nature. The botanical areas are areas of limited extent that have occurrences unique individual plants or plant associations. These areas are specifically described in greater detail in the Curry County Inventory of the Oregon Natural Areas.[1] Detailed descriptions concerning the location and unique qualities of the areas are given in the National Resources Document and each site is evaluated as required by Goal 5.

5.7 SCENIC VIEWS

Curry County is fortunate to have almost 80 miles of outstanding scenic views and sites along its coastline as well as numerous scenic areas in the interior areas of the county. The scenic qualities of the county are noted nationwide and provide one of the attractive features that helps to promote tourism to the area. Many people visit the area to experience the scenic qualities of the rugged coastline that extends the full length of the county. In addition, the Rogue and Illinois River canyons are also among the most scenic waterways in the country.

Curry County has inventoried the outstanding scenic areas of the county by mapping the wild and scenic sections of the Rogue and Illinois Rivers as defined by the state and federal laws (see Recreation Resources Inventory Map). The county has also mapped the scenic coastline areas and prominent coastal headlands as part of the coastal shorelands inventory (see Coastal Shorelands Inventory Map).

Virtually all of the scenic view areas of the county are fully protected by being either under public ownership, or if privately owned, under some form of scenic preservation program. Most of the land west of U.S. 101 is owned by the state and is preserved in its natural character. The state has developed some of these lands into parks which have recreational facilities at the more scenic points such as Harris Beach, Cape Sebastian, and Humbug Mountain. Other state park areas remain undeveloped in their natural state to preserve the natural beauty of these sites such as Floras Lake and Boardman State Parks.

The scenic portions of rivers in the county are located within the federally controlled lands of the National Forest

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1 Nature Conservancy (1977)

and are protected under the requirements of the Wild and Scenic Rivers Act and the Oregon Scenic Waterways Act. Private lands located along these rivers are also subject to the requirements of these laws so that development does not detract from their scenic qualities. Due to the public ownership of most areas and the restrictive federal and state laws the outstanding scenic areas of the county are well protected.

5.8 WATER RESOURCES

Curry County has abundant water resources in the form of rivers, streams, creeks, lakes, and groundwater. Water is utilized from these sources for domestic, industrial, agricultural and recreational uses essential to the livelihood and well being of the people of the county. The identification and consideration of water resources is an important part of the comprehensive plan. As part of the water resource inventory the county has mapped potential and existing reservoir sites, and drainage basins that are utilized for public water sources (see Water Resources Inventory Map).

5.8.1 Watercourses

There are a multitude of rivers and streams in Curry County and many of them are important sources of water and are used for water related activities. These water courses fluctuate seasonally in flow rate. In general, flows within the rivers and streams of Curry County run low during the summer months (June to August) and high during winter (December to February) with the advent of the winter rains. A high snow content in the Coastal Range will usually keep flows high through spring due to constant runoff source.

Several elements do combine to affect water quality and quantity including climate (precipitation and temperature), runoff, vegetation cover, erosion and sedimentation. Water quality is basically quite good throughout Curry County waterways. Two adverse factors to water quality, however, include high temperatures during periods of low flow (which lessens useable oxygen within the water) and upriver construction, logging or slumping activity causing erosion/sedimentation (which adds turbidity to the water). The temperature problem does not affect domestic, industrial or agricultural water use but rather has an impact on the natural environment for fish. High turbidity on the other hand can be a negative impact upon all water users especially domestic users who need high quality for human consumption. These problems are now being addressed through implementation of the Oregon Forest Practices Act and zoning requirements to protect riparian vegetation as discussed in other sections of this plan.

Fifteen lakes have been inventoried within Curry County and of these, only three are larger than fifty acres in surface area (Garrison Lake, Floras Lake and New Lake). New Lake is located on the Coos-Curry County line and has most of its area in Coos County. The smaller lakes are located within the Siskiyou National Forest, and little data is available for these. Tabel 5.8.A summarizes data regarding all the lakes and ponds in the county.

Most all of the lakes in Curry County are located within the Siskiyou National Forest and only have recreational or wildlife habitat significance. Floras and Garrison Lakes in the northern coastal part of the county also serve as local public and private water sources.

TABLE 5.8.A

LAKES IN CURRY COUNTY

Name	Location	Area (Acres)	Capacity (Acre Ft.)	Maximum Depth (Ft.)
Babyfoot Lake	T.38S., R. 9 W.	31	-	-
Chetco Lake	T.39S., R.11 W.	1	-	-
Floras Lake	T.31S., R.15 W.	223	4,173	37
Garrison Lake	T.32S., R.15 W.	85	740	27
Grass Lake	T.39S., R.12 W.	15	-	-
Laird Lake	T.33S., R.12 W.	-	3	-
Little Vulcan Lake	T.39S., R.13 W.	2	-	2
New Lake	T.30S., R.11 W.	108	-	-
Panther Lake	T.37½S. R.15 W.	1	-	-
Salamander Lake	T.38S., R.12 W.	2	-	-
Valen Lake	T.38S., R.11 W.	-	-	-
Vulcan Lake	T.39S., R.11 W.	10	-	5

Source: State Water Resources Board, 1977.

5.8.2. Non-coastal Wetland Areas.

Virtually all wetland areas in Curry County are located along the coastal shoreland or within the estuary areas due to the extremely rugged inland topography of the county. Several small areas in the upland portion of the county have been inventoried as having the characteristics of wetlands. These areas are either small lake or pond areas that are slowly filling and becoming mountain meadows or are wetlands which are adjacent to the larger rivers or streams in the county.

Table 5.8.B lists the available information regarding non-coastal wetlands inventoried in Curry County. Source information for this inventory is from the U.S. Fish and Wildlife Service National Wetland Inventory which indicate wetland areas on maps of scale 1"= 1 mile.

FIGURE 5.8 A

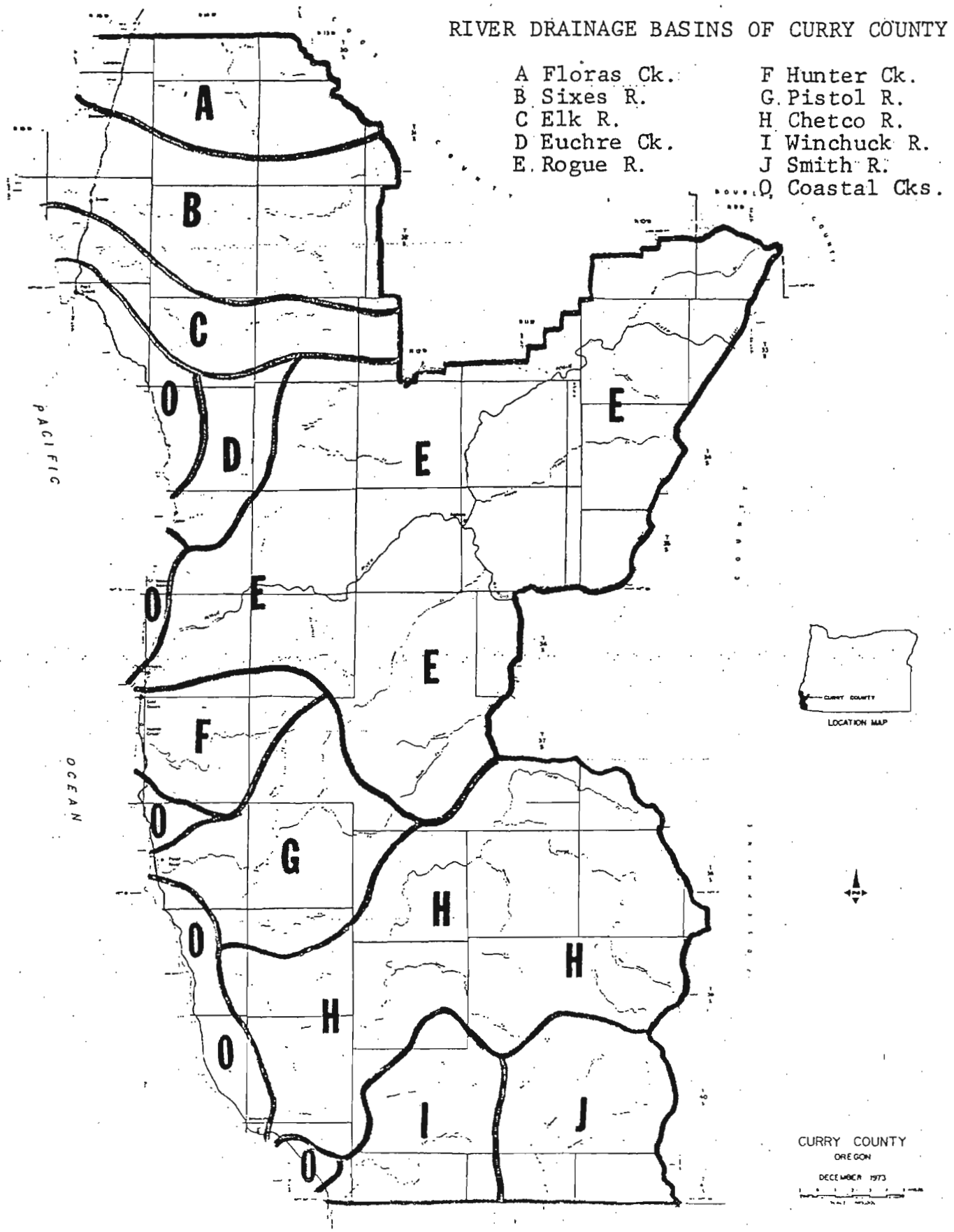
RIVER DRAINAGE BASINS OF CURRY COUNTY
A Floras Ck.
B Sixes R.
C Elk R.
D Euchre Ck.
E Rogue R.
F Hunter Ck.
G Pistol R.
H Chetco R.
I Winchuck R.
J Smith R.
O Coastal Cks.
PACIFIC
OCEAN
LOCATION MAP
CURRY COUNTY
OREGON
DECEMBER 1973

TABLE 5.8.B

Non-Coastal Wetland Areas

Location Twp.	Rg.	Sec.	Type of Wetland	Approx. Area	Ownership
32S.	13W.	11	Adjacent to Sixes River	±10 ac.	Private
35S.	14W.	35/36	Upland pond-meadow	10 ac.	Private
35S.	14W.	9/10	Adjacent Euchre Creek	5 ac.	Private
36S.	12W.	12	Upland pond-meadow	10 ac.	USFS
36S.	12W.	26	Game Lake Bog	10 ac.	USFS
36S.	14W.	36	Upland pond-meadow	10 ac.	Private
37S.	12W.	19	Upland pond-meadow	10 ac.	USFS
37S.	14W.	4	Upland pond-meadow	10 ac.	Private
37S.	14W.	28	Upland pond	5 ac.	Private
39S.	12W.	8	Adjacent Chetco River	10 ac.	Private
39S.	12.	17	Adjacent Chetco River	20 ac.	Private

This preliminary inventory is only approximate with respect to location, area and significance of the resource present at the site. Consultation with local Oregon Department of Fish and Wildlife personnel regarding these sites has not produced additional information other than the general opinion that the areas are not of sufficient extent or distribution within the county to be highly significant habitat areas.

5.8.3 Water Availability

Water is available primarily from two sources in Curry County; surface waters and groundwater. Surface water sources are the major rivers, streams and creeks which flow through the county. The Chetco, Rogue, and Sixes River subbasins contain the principle watersheds of the county. Combined these areas extend beyond the Curry County Line to include the total area of over 5600 square miles of watersheds. The Rogue River is the largest river within the county since it drains not only the coastal mountains but the southern Cascade Mountains as well. It has a drainage area of about 5100 square miles with an average annual flow at the mouth of 7800 cubic feet per second. In descending order of the freshwater yield the principle rivers are ranked from highest to lowest as follows: Rogue, Chetco, Sixes, Pistol, Elk and Winchuck. Tables 5.8.B and 5.8.C summarize statistics for these rivers.

Groundwater provides the second principle source of water in Curry County. Water from this source is obtained from individual wells and springs. Since much of the county is underlain by bedrock which is low in porosity and permeability there is relatively low groundwater availability.

TABLE 5.8.c

SELECTED RIVER DATA, CURRY COUNTY, OREGON

	Sixes River	Elk River	Rogue River	Pistol River	Chetco River	Winchuck River
Headwater Area	87 acres	82 acres	433 acres	59 acres	191 acres	31 acres
Drainage Area	129 sq.mi.	94 sq.mi.	5100 sq.mi.	106 sq.mi.	359 sq.mi.	70 sq.mi.
Length of Main Branch	31.4 mi.	29.8 mi.	213 mi.	21.8 mi.	58 mi.	12 mi.
Mean Annual Yield at Mouth	610 cfs	460 cfs	7800 cfs	564 cfs	1900 cfs	300 cfs
Average Annual Water Temp.	57° F.	58° F.	N/A	60° F.	65° F.	64° F.
Game Fish Present	fall chinook steelhead sea-run cutthroat	fall chinook steelhead sea-run cutthroat	chinook coho chum steelhead sea-run cutthroat	fall chinook coho steelhead sea-run cutthroat	fall chinook steelhead sea-run cutthroat rainbow trout	fall chinook steelhead sea-run cutthroat
Tributaries With Fish Activity (not all-inclusive)	Dry Cr. Edson Cr. Elephant Rock Cr. Otter Ce. Middle Fork North Fork South Fork Sugar Cr.	Anvill Cr. Bald Mt. Cr. Butler Cr. North Fork South Fork Blackberry Cr. Panther Cr. Red Cedar Cr.	Illinois R. Indian Cr. Saunders Cr. Edson Cr.	Crook Cr. Deep Cr.	North Fork South Fork Quail Prairie Cr.	Bear Cr. Wheeler Cr. East Fork Moser Cr. Fourth of July Cr.

Sources: Oregon Department of Fish and Wildlife, 1977.
Percy, et al, "Oregon's Estuaries", Oregon State University, 1974.
Curry County Planning Department air photo analysis, 1977.

TABLE 5.8.D

SELECTED WATER DISCHARGES IN CURRY COUNTY (in cfs)

Name	Annual Average Flow	High Monthly Flow	Low Monthly Flow	Established Minimum Flow	Water Rights
Floras Creek below Guerin Creek	283	748	10	5	1
Sixes River below Beaver Creek	590	1,559	21	30	1
Elk River below Indian Creek	456	1,203	16	45	4
Euchre Creek Mouth	176	465	6	10	3
Rogue River near Agness	7,398	10,190	1,588	N/A	N/A
Hunter Creek below York Creek	228	602	8	7	0
Pistol River Mouth	564	1,488	20	15	1
Chetco River below North Fork	1,840	4,858	66	80	5
Winchuck River below Moser Cr.	283	746	10	20	0

Source: State Water Resources Board, 1977.

A Comprehensive study of groundwater availability in Curry County has not been completed so that only generalized statements can be made regarding different areas of the county.

1. Groundwater potential is generally low in upland areas with water being present in local concentrations along fractures, bedding planes and weathered zones bounded by impermeable rock.

2. Groundwater potential is low to moderate on the coastal terraces but aquafiers do commonly occur with limited extent so that water-bearing zones can be found at depth between impermeable rocks.

The best defined groundwater body in Curry County is the Harbor Bench where a consistent productive aquafier provides most of the irrigation water for the horticultural farms in the area. This groundwater body is a porous layer in the terrace deposits that appear to be recharged from the adjacent hills to the east.[1]

[1] Lissner, (1977)

5.8.4 Major Water Users

The primary water users in Curry County are the major municipal water systems which are located in the three incorporated cities. There are also four rural municipal systems located in the communities of Langlois, Ophir, Nesika Beach and Harbor. Each of these systems has its own source, storage treatment and distribution system for supplying its patrons. These systems supply the bulk of the population of the county with domestic, commercial and industrial water. Water supplied through these systems is required to meet all state and federal requirements for potable water so that it can be put to general use.

Agriculture also is a major water user in the county with needs for irrigation. Irrigation water is extensively used in horticultural crop farming, cranberry production, and where possible on pasture lands. These users do not need potable water and generally utilize raw ground or surface water derived from a local source (see section 3.2.4).

5.8.5 Water Needs

The principal municipal water users generally have adequate water sources to supply their users and only have shortcomings in their facility plants. Problems related to supplying water in a public water system that are related to the facilities will be discussed under Chapter 11, Public Facilities, Although municipal water systems do not appear to have any problems with water availability there are many places in the county where rural users have a lack of water. This is related to the development of residential areas where there is only a limited ground water supply. Since groundwater quantity is unknown in many areas of the county logical planning for development cannot occur until water sources are proven so that an adequate supply of potable water is available for the residents. Therefore the future needs of the county with respect to water will be to identify suitable sources of groundwater in rural areas of the county where residential development has or is occuring to supply the residents of the area.

5.8.6 Water Related Recreation

Water related recreation is an important aspect of Curry County lifestyle and economy. Most of this type of recreation is centered around the ocean shoreline, port areas, and major rivers. These areas attract fishermen, boaters, canoeists, river rafters and swimmers. Most of these uses are dependent on maintaining adequate perennial stream flows. These uses of the county water resource will be discussed more fully under Chapter 8 Recreation.

5.9 WILDERNESS

Wilderness is defined as an area where the earth and natural community are essentially unaltered by man and man himself is a visitor and not a permanent resident. Basically it is an area of undeveloped land retaining its primeval character without permanent improvement or human habitation, which is protected and managed so as to preserve its natural conditions. Curry County has a significant amount of its land area in a wilderness classification through decision of the federal government. The Wilderness Act of 1964 gave legislative status to 54 units of National Forest including 76,900 acres of the Kalmiopsis Wilderness. In 1978, Congress passed into law the Endangered American Wilderness Act adding approximately 103,000 acres to the existing Kalmiopsis Wilderness. The act also added the 27,200 acre Wild Rogue Wilderness into the National Wilderness System.

The Kalmiopsis contains some of the most rugged and inaccessible country in the Siskiyou National Forest. It is characterized by deep, rough canyons, sharp ridges, and aparse vegetation. Serpentinite and various periditites are prevelent in the area. It has a high potential for mineral deposits, particularly nickel and chromite and several mining roads exist within the wilderness country.

The flora is noteworthy, not only for the great number of species, but also for the abundance of rare and unusual plants. Known to grow within the Kalmiopsis Wilderness are 12 species of coniferous trees, 9 species of hardwood trees, over 31 species of shrubs, and many species of herbaceous plants. Kalmiopsis leachiana, which resembles a minature rhododendron, is abundant in protions of this wilderness. It is believed to be a relic of the tertiary age. The plant was discovered in 1930 by Mrs. John Leach of Portland, Oregon.

Because of the wilderness' harshness and its distance from large populations, it is one of the most lightly used wilderness areas in the Pacific Northwest. Recreation use grew from 400 visitor days in 1966 to 9,200 visitor days in 1977. This represents less than 1.2 percent of the wilderness days recorded in 1977 within the National Forest of Oregon and Washington. The acreage within the Kalmiopsis Wilderness, by contrast, represents 4.0 percent of the wilderness acreage for the same region.[1]

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[1] Chetco-Grayback Planning Unit, Final Environmental Statement; U.S. Forest Service, U.S.D.A.

Curry County had inventoried all wilderness areas within the county by mapping their boundaries on the inventory base map (see Cultural Resources Inventory Map). The map shows those areas as they have gradually been expanded from the original botanical area created in 1946 to the present boundaries created in 1978. The continued expansion of the wilderness areas within the county has had negative impacts upon the economy of the county and the entire region by withdrawing commercial timber lands and mineral resource areas from future production. The comprehensive plan recognizes that all truly environmentally sensitive areas that qualify for a wilderness classification are presently preserved under that catagory and any future expansion will have to be balanced against the economic impacts to the county and entire region.

5.10 CULTURAL RESOURCES

Curry County has inventoried the cultural resources of the area primarily on the basis of its cultural background in the form of historical sites and prehistorical areas of archeological significance. The history of Curry County was briefly reviewed in Section 2.2 of the comprehensive plan which indicated those specific sites in the county which were important to the settlement and development of the area. Because of the relatively small population and slow rate of development of the county many of the actual structures and sites that have historical significance still exist. This is also true of pre-historical sites such as former indian village sites, burial grounds and hunting camps.

Because many descendents of the pioneer families still reside in the county there is a strong interest in the preservation of the cultural heritage of the area. Curry County has a very active historical society that participates in historical research, historical site preservation projects and cultural resources inventory and related aspects of the comprehensive plan.

5.10.1 Historic Sites

Curry County has inventoried all historic sites known with any accuracy. Some of the historic sites in Curry County are not physically developed or structures but are merely areas in which a historical event has occurred. In these cases the areas are hard to protect since the specific site is not precisely known. Historical structures within the county are identified as to their significance to the county. General location of all historic sites and structures is shown on the Cultural Resources Inventory Map and listed with their status on Appendix 5-II. Specific information regarding the location and quality of each site is given in the Natural Resources Document together with an analysis of the sites as required by Goal 5.

5.10.2 Areas of Archeological Significance

Curry County has inventoried areas of known archeological significance based on available data provided by the state and other historic records.[1] Areas known to contain archeological sites are mapped on the Cultural Resources Inventory Map to provide a means of identifying these sensitive areas for planning purposes. Site specific descriptions of these areas are not provided in the comprehensive plan in order to afford some protection to them prior to professional study. Many of these sites may not presently exist due to destruction by natural processes or developmental uses, however, a final determination of existence of archeological material cannot be made without professional evaluation.

Appendix 5-III lists archeological and historical sites in chronological order with brief comments regarding their significance. Specific information regarding the location and quality of each site is given in the Natural Resources Document together with an analysis of the sites as required by Goal 5.

5.10.3 Recreational Trails

Curry County has several recreational trails which have been identified as being part of the state trail system. Some of these trails presently exist, others are only partially complete or in the planning stage. This resource is discussed more fully in Chapter 8 (Recreation) where there is a description and policy provisions for recreational trails in the county.

5.11 ANALYSIS OF NATURAL RESOURCE SITES

Curry County has done a preliminary inventory of all Goal 5 resources in terms of location, quality, quantity, and ownership of the resource sites. This preliminary inventory is shown in the appendicies attached to this chapter and in the inventory atlas that is a part of the comprehensive plan. Goal 5 also requires that the county evaluate the preliminary inventory information with regard to location, quality, and quantity of each resource site and then determine one of three options for the site; a) do not include the site in the inventory, b) include the site in the inventory but delay evaluation of the site until additional information is available, and c) include the site in the inventory and analyze the site in terms of conflicting uses to determine a program to achieve the intent of Goal 5. Therefore, the final Goal 5

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[1] Donna Hepp (1977)

inventory must only include those sites which have been analyzed and found to have sufficient information to adequately locate them and determine their resource quality and quantity.

The evaluation of the preliminary Goal 5 inventory information presented in the comprehensive plan is so extensive that it has been placed on a separate "Natural Resources Inventory Document which is a subdocument of the Curry County Comprehensive Plan. This document contains the site specific data for each resource site identified in the preliminary inventory, discussion of the rationale for classifying the sites by the three options allowed by the Goal; the analysis of each specific site to be retained in the final inventory and the program to determine the land use of each site in the final inventory. The Natural Resources Inventory Document contains information and discussion of the "site specific" natural resource sites and is an addition of this chapter of the comprehensive plan.

5.12 PLAN POLICIES REGARDING NATURAL RESOURCES

Curry County Adopts the following comprehensive plan policies with regard to natural resources:

A. With regard to Open Space Lands:

1. Curry County has adequate open space lands to meet the needs of its citizens and visitors.

2. Curry County recognizes the value of open space as an asset to the county for scenic qualities recreational opportunities, and wildlife habitat.

3. Curry County has preserved open space land within the county through the designation of much of the county land area for agricultural and forest use.

B. With regard to Mineral and Aggregate Resources.

1. Curry County recognizes the value of the mineral resources present in the county and seeks their development wherever possible to the benefit of the people and other resources of the county.

2. The extensive nickel and chrome deposits of the county are of local and national importance and should be utilized to the benefit of the people.

3. The sand, gravel and aggregate deposits of the county are the most productive mineral resource at present and continued utilization of these resources is essential to the growth of the county.

4. Potential conflicts between gravel removal sites and other uses have been addressed and resolved so that these sites are utilized to optimal benefit of the resource through the implementation provisions of the comprehensive plan. Implementation of the plan will include a review process that is based on the factors below:
   1) if the use can be sited on an alternative site outside the area; and
   2) if there are extenuating circumstances that make the proposed use more valuable than the mineral resource at the site.

C. With regard to Energy Recovery:
1. Curry County has several sites which are suitable for the recovery of renewable energy from the wind on a commercial scale and these sites should be retained for this use.
2. Potential conflicts between energy recovery sites and other uses have been addressed and resolved so that these sites are utilized to optimal benefit of the resource through the implementation provisions of the comprehensive plan.
3. Curry County will evaluate and proceed through the Goal 5 process at a future date when more information is available regarding the energy generation potential of the Illinois River at the Buzzard Roost dam site in the wild and scenic river system.
4. Curry County will evaluate and proceed through the Goal 5 process at a future date when more information is available regarding the wind energy resource in the Port Orford-Cape Blanco-Langlois area from meterological data presently being measured.

D. With regard to Wildlife Resources:
1. Curry County has a diverse wildlife which provides a balanced natural community as well as outdoor recreational opportunities.
2. The preservation of the wildlife resource is dependent upon retention of the natural habitats within which the animals live; most habitat areas in Curry County are located on public lands.
3. Private lands also provide habitat areas for wildlife but land use conflicts often arise between human uses and the wildlife resource; Curry County has identified these conflicts and established a process to resolve them which will protect the significant habitats in accordance with ODFW guideline through the dwelling and land division standards of the Zoning Ordinance for the applicable resource zones.
4. Curry County supports the retention of riparian vegetation along streams to protect anadromous fish habitat through the riparian setback standards of the Zoning Ordinance.

E. With regard to Scenic Resources:
1. Curry County recognizes the value of its scenic landscapes and seeks to retain their beauty for the enjoyment of residents and visitors.
2. Most of the scenic river courses and coastline areas are under pubic ownership and control so that they are beyond the control of the county; where such resources are located on private lands Curry County has identified any conflicts and resolved such conflicts with the implementation provisions of the comprehensive plan.

3. Curry County recognizes that the Illinois and Chetco Rivers have the potential for being respectively designated Federal and State scenic waterways; the County will coordinate with these agencies in order to be fully informed of the status of these designations and to represent the interests of the people of the county in the deliberations over the issue.

F. With Regard to Water Resources

1. Curry County has a wide variety of water resources including rivers, streams, lakes and groundwater and seeks to have the water utilized to the benefit of its people.
2. Since the rainfall of the area is seasonal, Curry County encourages the construction of impoundments to retain water for use during the dry seasons.
3. Due to the questionable availability of surface water and groundwater in some parts of the county, residential development should be encouraged only in areas which are known to have adequate supplies of potable water.
4. Potential conflicts between identified water resources and other uses have been addressed and resolved so that these resources are utilized to the optimal benefit of the resource through the implementation provisions of the comprehensive plan.
5. Curry County will evaluate and proceed through the Goal 5 process with regard to the 1B non-coastal wetland identified in the plan inventory at a future plan update, or when more information is available regarding the quality and quantity of the resource.
6. Curry County will cooperate with the Department of Water Resources and Department of Fish and Wildlife to obtain more information about groundwater and surface water availability and to conserve water resources for consumptive and nonconsumptive uses to the benefit of the people of the county.
7. Curry County will evaluate and proceed through the Goal 5 process with regard to the 1B rivers and lakes identified in the plan inventory at a future plan update, or when more information is available regarding the quality and quantity of the resource.

G. With respect to Cultural Resources:

1. Curry County has an interesting and varied history and seeks to preserve its cultural heritage wherever possible.
2. The county has identified all significant historical and archeological sites in the county and will preserve these sites for the benefit of future generations within the limits of its legal powers.
3. Potential conflicts between historical and cultural resource sites and other uses have been addressed and resolved so that these sites will be preserved to the benefit of the people of Curry County through the implementation provisions of the comprehensive plan.
4. Curry County will evaluate and proceed through the Goal 5 process at a future date when more information is available regarding the Natural Area Resource Sites identified in the 1B inventory classification of the comprehensive plan.

APPENDIX 5-I

PRELIMINARY INVENTORY OF NATURAL AREAS AND SITES

GEOLOGICAL AREAS

Inventory Number	Name	Ownership	Specific Site	Area	Protection Status
1.	Tower Rock	Pub.	x		FP
2.	Castle Rock	Pub.	x		FP
3.	Blanco Reef	Pub.	x		FP
4.	Orford Reef	Pub.	x		FP
5.	Port Orford Heads	Pub.		x	SP
6.	Humbug Mountain Slide Area	Pub.		x	SP
7.	Sisters Rocks	Pub	x		SP
8.	Lawson Creek Potholes	Pub	x		NF
9.	Hastings Rock	Pvt.	x		FD

BOTANICAL AREAS:

1.	Blacklock Point Pygmy Forest	Pub		x	SP
2.	Garrison Lake	Pub.		x	CP
3.	Rocky Point Forest	Pvt.		x	FD
4.	Humbug Mountain State Park	Pub		x	SP
5.	Iron Mountain	Pub		x	NF
6.	Lobster Creek Bog Marsh	Pub	x		NF
7.	Lobster Creek Youth Camp	Pub		x	CC
8.	Myrtle Creek	Pvt		x	FD
9.	Euchre Creek Coast Forest	Pvt.		x	FD
10.	Euchre Creek Herb Area	Pvt.		x	FD

Botanical Areas (continued)

Inventory Number	Name	Ownership	Specific Site	Area	Protection Status
11.	South Coast Herbland near Euchre Creek	Pub.		x	FD
12.	Silver Creek Myrtle Groves	Pub		x	NF
13.	Nesika Beach Old Growth Forest	Pvt.	x		NC
14.	Coast Frand Fir - Giesel Monument	Pub.	x		SP
15.	Red Trillium	?		?	FD
16.	Otter Point State Park.	Pub.		x	SP
17.	Hunter Creek Hill	Pvt		x	FD
18.	Hunter Creek Bog	Pub	x		BLM
19.	Snow Camp Meadow	Pub.		x	NF
20.	Windy Valley	Pvt.		x	FD
21.	Toleman Ranch Pines	Pub.		x	NF
22.	Long Ridge	Pub.		x	NF
23.	Babyfoot Lake Botanical site	Pub.		x	NF
24.	Bosley Butte	Pub.		x	SP
25.	Wheeler Creek	Pub.		x	NF
26.	Chrome Creek	Pub.		x	NF
27.	Harris Beach Bog	Pub.	x		NF
28.	Baldface Creek	Pub		x	NF
29.	Siskiyou Pines	Pub.		x	NF
30.	Lemmingsworth Gulch	Pub.		x	NF
31.	Winchuck Slope	Pub.		x	NF
32.	Cedar Creek	Pub.		x	SP

KEY:

FP	Federal Park	BLM	Bureau of Land Management
SP	State Park	NC	Nature Conservancy
CP	City Plan	FD	Future Determination
NF	National Forest	CC	Curry County

APPENDIX - II

PRELIMINARY INVENTORY OF HISTORICAL SITES AND AREAS OF ARCHEOLOGICAL SIGNIFICANCE

Inventory Number	Name	Ownership	Specific Site	Area	Protection Status
1.	Langlois				
	a. Star Ranch	Pvt.		x	FD
	b. Thrift Ranch	Pvt.		x	FD
	c. Russell Ranch	Pvt.		x	FD
	d. Sorenson Home	Pvt.	x		FD
	e. Langlois Hotel	Pvt.	x		FD
	f. Woodmen of the World Bldg.	Pvt	x		FD
	g. Cheever's Hardware Store	Pvt.	x		FD
2.	Lorentzen Store*	Pvt.		x	FD
3.	Pacific City	Pvt./Pub.		x	FD
4.	Blacklock Quarry	Pub.		x	SP
5.	James Hughes House		x		
6.	Patrick Hughes House		x		
7.	Hughes Church* and cemetery	Pub.	x		SP
8.	Cape Blanco	Pub.		x	SP
	a. Lighthouse	Pub.	x		SP
9.	Port Orford				
	a. Cape Orford	Pub.		x	
	b. Battle Rock	Pub.		x	
	c. Fort Orford*	Pvt.		x	CP
	d. Tichenor cemetery	Pvt.	x		CP
	e. Citizen's Fort*	Pvt.		x	CP
	f. Knapp Hotel*	Pvt.	x		CP
	g. Centenial Bldg.	Pvt.	x		CP
	h Nygren Hotel	Pvt.	x		CP
	i. Long House	Pvt.	x		CP
	j. Lindberg House	Pvt.	x		CP
	k. Masterson House	Pvt.	x		CP
	l. White House	Pvt.	x		CP

* Building no longer exists

Inventory Number	Name	Owner-ship	Specific Site	Area	Protec-tion Status
10.	Signal Pit - Barklow Mtn.	Pub.	x		NF
11.	Half Breed's House*	Pvt.	x		FD
12.	Port Orford Meteorite			x	
13.	Reinhart's Pacific Ranch	Pvt			
14.	Sister's Rocks	Pub.	x		SP
15.	Rocky Reef Ranch	Pvt.		x	FD
16.	Moore House	Pvt.	x		FD
17.	Lobster Creek Rocks	Pub.	x		NF
18.	Lucas Lodge	Pvt.	x		FD
19.	Oak Flat	Pub.		x	NF
20.	Big Meadows Battle	Pub.	x		NF
21.	Marial Cemetery	Pvt.	x		FD
22.	Zane Gray's Cabin	Pvt.	x		FD
23.	Fort Lumerick*	Pub.	x		BLM
24.	Battle Bar	Pub.	x		BLM
25.	Geisel Monument*	Pub.	x		SP
26.	Wedderburn Town Area				
	a. Fort Miner*	Pvt.	x		FD
	b. Potato Patch Battle	Pvt.		x	FD
	c. R. D. Hume Home	Pvt.	x		FD
	d. R. D. Hume Store	Pvt.	x		FD
27.	Gold Beach				
	a. Hume Salmon Cannery*				
	b. Patterson Bridge	Pub.	x		SP
	c. Pioneer Cemetery	Pub.	x		CP
28.	Wright Murder Site	Pvt.		x	FD
29.	Red Flats	Pub.		x	NF

* Building no longer exists

Inventory Number	Name	Owner-ship	Specific Site	Area	Protec-tion Status
30.	Cape Sebastian	Pub		x	SP
31.	Walker House	Pvt.	x		N
32.	Pistol River Cheese Factory	Pvt	x		N
33.	Battle of Pistol River	Pub.		x	SP
34.	Ostrander Ranch	Pvt.		x	N
35.	Whaleshead Cove	Pub.	x		SP
36.	Cape Ferrelo	Pub		x	SP
37.	Lone Ranch Borax Mine	Pvt.		x	FD
38.	Brookings Sawmill	Pvt.	x		FD
39.	Logging Railroad	Pvt/Pub		x	FD
40	Mt. Emily Bomb-ing site	Pub.	x		NF
41.	Harrison Blake Home	Pvt	x		FD
	A. Blacklock Point Midden	Pub		x	SP
	B. Indian Heads Midden	Pub		x	SP
	C. Iron Mountain	Pub.		x	NF
	D. Ophir Midden	Pvt.		x	FD
	E. Tututni Indian Village	Pvt		x	FD
	F. Indian Midden-Agness	Pub/Pvt.		x	FD
	G. Chet-less-untum Midden	Pub.Pvt.		x	FD
	H. Cape Ferrelo Midden	Pub/Pvt.		x	FD
	I. Chetco Indian Village	Pub/Pvt.		x	FD

KEY:

FP	Federal Park	BLM	Bureau of Land Management
SP	State Park	NC	Nature Conservancy
CP	City Plan	FD	Future Determination
NF	National Forest	CC	Curry County

APPENDIX 5-III

PRELIMINARY INVENTORY OF CULTURAL RESOURCE SITES

Site/location	Date	Location	Signiifcance
a. Indian midden	pre-contact	Agness vicinity	Early Indian Village
b. Blacklock Point midden	"	Cape Blanco area	" " "
c. Chet-less-untum midden	"	Pistol River area	" " "
d. The Heads midden	"	Port Orford Heads	" " "
e. Tututni Indian Village*	"-1856	Ferry Hole area	" " "
f. Chetco Indian Village*	"	Brookings/Harbor	" " "
1. Cape Ferrelo	1543	Cape Ferrelo	Early maritime reference point. Named for Bartoleme Ferrelo, a Portuguese explorer.
2. Cape Sebastian	1603	Cape Sebastian	Named on a Spanish expedition by Sebastian Vizcaino.
3. Cape Blanco	1603	Cape Blanco	Early maritime reference point. Named by Martin D'aguilar.
4. Cape Orford	1792	Port Orford	Named by Captain William Vancouver on English mapping expedition.
5. Battle Rock	1851	Port Orford	Site of Indian skirmish with 9 man advance party of Tichenor's Port Orford Settlement.
6. Fort Orford	1851-56	Port Orford	U.S. Army fort built for Indian protection.
7. Indian Campground	1850's	Iron Mountain	Early Indian Site
8. Tichenor Cemetery	1853	Port Orford Heads	Pioneer cemetery
9. Star Ranch	1854	Langlois area	First cattle ranch in Curry County.
10. Reinhart's Pacific Ranch	1854	Humbug Mountain	Early ranch and Way Station.

Site/Structure	Date	Location	Significance
11. Half Breed's House*	1854	Humbug Mountain	Early tavern run by 5 men of Oregon Indian descent.
12. Citizen's Fort	1855	Port Orford	Log structure and palisade built by citizens for Indian protection.
13. Fort Lumerick*	1855	North of Winkle Bar (Rogue R.)	Indian War fort site.
14. Signal Pit	1850's	Barklow Mountain	Indian smoke signal pit.
15. Battle of Pistol River	1856	Pistol River Mouth	Indian Battle site
16. Battle Bar	1856	NE Curry County	Indian War skirmish site.
17. Big Meadows Battle	1856	Illahe vicinity	Major battle site of the Rogue River Indian War.
18. Fort Miner *	1856	Wedderburn	Fort and refugee center during Indian War.
19. Geisel Monument*	1856	Nesika Beach	Indian massacre site of early German immigrant family.
20. Lobster Creek Rocks	1856	Rogue River at Lobster Creek	Fishing site until Indians were ambushed here by Gold Beach Guard during Indian War.
21. Oak Flat	1856	Agness vicinity	Site of Indian Village and also Rogue River Indian War treaty signing.
22. Potato Patch Battle	1856	Wedderburn	Party of men from Fort Miner seeking a potato cache were ambushed by Indians.

Site/Structure	Date	Location	Significance
23. Whaleshead Island	1856	Gold Beach vic.	Reputed Indian massacre site.
24. Wright Murder Site	1856	Jerry's Flat	Indian Agent murdered here.
25. Port Orford Meteorite	1856	Bald Mountain	Supposed site of large lost meteorite.
26. Marial Cemetery	1850's-1900	Marial	Pioneer Cemetery
27. Knapp Hotel*	1867	Port Orford	Popular early hotel
28. Cape Blanco Lighthouse[1]	1870	Cape Blanco	Early lighthouse still in use today.
29. Blacklock Quarry	1873-1905	North of Cape Blanco	Sandstone quarry with steamer shipments to San Francisco for construction use.
30. Centenial Building	1876	Port Orford	Now a store, once a saloon.
31. Hume Salmon Cannery	1877	Gold Beach	Early Salmon Hatchery and cannery on the Rogue River.
32. Lorentsen Store*	1878	Denmark	Store, boarding house and home built by Danish sea captain.
33. Russell Ranch	1862	Langlois vic.	Early County Ranch
34. Thrift Ranch	1877-1888	Langlois vic.	Early ranch owned by the founder of Langlois. Now the Knapp Ranch.
35. Nygren Hotel	1888	Port Orford	Now a store, once a hotel.
36. Rogue River Ranch	late 1800's	Marial vicinity	Early Ranch and trading post.

* Building no longer in existance.
1 Recorded in National Register of Historic Places

Site/Location	Date	Location	Significance
37. Harrison Blake Home	1890	South of Harbor	Residence of one of the Geisel massacre survivors and husband. Now, a museum - Early ranch.
38. Rocky Reef Ranch	1890	Ophir	Early ranch.
39. Borax Mine	1890-91	Lone Ranch	Borax mining with shipments sent by barge to San Francisco.
40. Whaleshead Cove	1890's-1900	Whaleshead Cove	Black sand beach mining.
41. Long House	1891	Port Orford	Early County Home
42. Lindberg Home	1892	Port Orford	Elaborate home of Swedish builder, Peter Johan Lindberg
43. Hughes Church* and cemetery	1893	Cape Blanco	Catholic Church and cemetery built by Patrick Hughes on Hughes' ranch. Cemetery remains.
44. R. D. Hume Home	1898	Wedderburn	Home of Hume Cannery owner.
45. Sorenson Home	1896-96	Langlois	Hotel/residence built by the widow of Capt. Lorentzen. Now a home/shop.
46. Hughes Home	1898	Cape Blanco	Eastlake Victorian home of P. Hughes and built by P. Lindberg.
47. Masterson Home	1898	Port Orford	Elaborate home built by P. Lindberg.

Site/Location	Date	Location	Significance
48. Logging Railroad[2]	early 1900's	Jack Creek	County's only railroad. Trestle remains at Brookings gravel plant.
49. Red Flats[2]	early 1900's	Near Hunter Cr.	Early Nickel Mining
50. Zane Grey's Cabin	early 1900's	Winkle Bar	owned by Novelist Zane Grey until 1960
51. Pistol River Cheese Factory	early 1900's	Pistol River	Former Cheese Factory but now vacant.
52. White House	1902	Port Orford	Early 1900's style home.
53. Walker House	1906	Pistol River	Early 1900's style home.
54. Ostrander Ranch	1906-08	Pistol River	Early County ranch.
55. Pacific City*	1908	Floras Lake Area	Town speculation failure
56. Hames Hughes House	1909	Sixes River mouth	Home of Patrick Hughes son.
57. Langlois Hotel	1911	Langlois	Early hotel, now a store.
58. Moore House	1911	Ophir	Early 1900's home
59. Woodmen of the World Building	1911-12	Langlois	Town store and lodgehall now vacant.
60. Brookings Sawmill	1913-14	Brookings	Sawmill of John Brookings.
61. Lucas Lodge	1920	Agness	Early guest ranch, still in use.
62. Rogue River Bridge	1932	Gold Beach	Bridge across lower Rogue River
63. Bombing site	1942	Mt. Emily	Site of air incendiary attack by Japanese submarine based float plane in World War II.

Note: All sites/structures are inventoried by the Oregon State Historic Preservation Office except as identified in item 2. above.

* Structure(s) no longer remain

1 Recorded in National Register of Historic Places.

2 Properties mentioned in "An appraisal of Potentials for Outdoor Recreational Development," SCS, 1970 and not identified in either the National or

6. AIR, WATER, LAND RESOURCE QUALITY

6.1 INTRODUCTION

The basic intent of Goal 6 is to "maintain and improve the quality of the air, water and land resources of the state. This goal is generally carried out through the Oregon Department of Environmental Quality (DEQ) whose principal funciton is to regulate waste and process discharges throughout the state and insure that the environmental quality of the state is maintained. The function of a comprehensive plan is to determine that "all waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards."[1]

6.2 AIR QUALITY

In 1974 the Environmental Protection Agency (EPA) established regulations for protecting areas with air quality cleaner than the National Ambient Air Quality Standards (NAAQS). Most of Curry County is subject to the "Class II Prevention of Significant Deterioration" (PSD) classification, which permits moderate deterioration of the air quality. However, the Kalmiopsis Wilderness Area in Curry County falls under the Class I PSD, which is the most strict classification. DEQ recognizes the fact that most Class I areas are under the jurisdiction of the federal government, and therefore, the Federal Land managers are given specific procedural rights regarding proposed permits affecting Class I areas. The Federal Land manager must demonstrate to the EPA administrator that any proposed source will not have an adverse impact on air quality related values in the Class I area. Present air quality in Curry County is so high that is has 100% of its degradation limit remaining before an air quality violation would occur.

There are several possible sources of air contaminants in Curry County which could contribute to air quality degradation; 1) industrial uses, 2) the concentration of vehicles within cities, 3) controlled burning of slash and pasture, 4) smoke from utilization of wood for residential heating. The principal industry in Curry County is the forest products industry which consists of sawmills and plywood mills. All such mills must operate under waste

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[1] LCDC (1978)

discharge permits issued by DEQ and have been able to comply with all applicable state and federal regulations.[1] Other industrial uses within the county which could contribute to air pollution are rock crushers and asphalt plants which must also operate under similar DEQ permits.

Air pollution can also be created in the vicinity of cities due to the concentration of automobiles, trucks and other vehicles in a relatively small area. This problem is no potential threat to air quality in Curry County due to the small size of cities and their locations on the open coastline where persistent winds quickly disperse the pollutants as a form of natural ventilation.

The most serious air quality problem presently occurring in Curry County is the smoke created when there is controlled burning of forest slash or pasture areas in the fall and spring. Burning is the most efficient way to remove the waste material from logging in preparation for reforestation, however, it must be done under carefully controlled conditions to prevent forest fires. Slash burning is a procedure which is essential to maintain the commercial production of the forest after the timber crop has been harvested. Forest managers generally choose to burn slash in the fall when the moisture content of the fuel is low and wind is not a problem. The low wind conditions are also ideal for the creation of an atmospheric inversion layer which traps smoke near the ground. Such air pollution seldom lasts for more than a day because of the predominant winds.

6.3 WATER QUALITY

Water quality in the United States is controlled by the Federal Pollution Control Act which was passed by Congress in 1972. The basic intent of this law is to improve the water quality of all waters in the United States by limiting pollution. Oregon implemented this law through OAR Chapter 340 which empowers the Department of Environmental Quality to set water quality standards throughout the state.

Basically the water quality standards involve regulating the discharge of waste material into the waters of the state with respect to the following factors:

1) thermal discharge
2) turbidity
3) coliform bacteria

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[1]Ruben Kretzschmar, (1981) DEQ Personal Communication

4) dissolved gases

5) radioisotopes

6) dissolved chemicals

7) other materials such as oils, solids, or biological materials which may alter the sight, taste, smell or touch of waters.[1]

Monitoring and regulating the above factors is the responsibility of the Oregon Department of Environmental Quality.

The County Environmental Sanitation Department, Oregon State Health Division, and Oregon Department of Environmental Quality provide services related to the testing of water quality and assistance with the maintenance of private, community, and public water systems. In addition, Curry County has provided financial and technical assistance to various rural water systems in the county through the county Commissioners Office. During the past several years the County has provided financial assistance to help create the Ophir Water District and improve the Langlois Water District facility. The county has also provided technical assistance to the Langlois Water District and the Harbor Water District through its Environmental Sanitation Department, Road Department and County Engineer. Curry County has been committed to the maintenance of water quality in the county through its existing programs which will continue as the implementation program for the comprehensive plan.

6.3.1 Sewage Disposal

The most significant form of waste discharge that has the potential for water pollution is sewage. Sewage disposal in the county is handled by several different methods;

1) individual septic systems

2) rural sanitation districts, mostly using sewage lagoons.

3) municipal sewage, using sewage treatment plants

Most of the rural areas of the county utilize individual septic systems for each structure. The location, design, and inspection of these systems is controlled by the County Environmental Sanitation Department to promote and protect public health.

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[1]OAR, 340-41-205 Water Quality Standards

Two of the rural sewer districts (Wedderburn S.D. and Knoxtown S.D.) are located just north of the Rogue River on the coast. These districts utilize zero discharge sewage which operate under a DEQ Water Pollution Control Facilities (WCPF) permits. Under such permits the maintenance and operation of these facilities is monitored on an annual basis. The Wedderburn lagoon system is currently operating at 139% capacity but there appears to be no problem.[1] The Knoxtown lagoon system was recently enlarged so that it appears to have the capacity for many additional hookups. The Harbor Sanitary District is located in the Harbor Community area south of the City of Brookings. Sewage collected in the district is pumped across the Chetco River and treated by the Brookings sewage treatment plant. The Brookings treatment plat is a regional facility because of its location and potential for expansion with an ocean outfall. The Cities of Gold Beach and Port Orford have treatment plants which serve the incorporated cities; both plants also have the potential for expansion with an outfall. For a more complete discussion of these municipal treatment facilities the city comprehensive plans should be consulted.

6.3.2 Nonpoint Pollution Sources

In response to the Federal Clean Water Act of 1972, Section 208, DEQ developed Oregon's Assessment of Nonpoint Source Problems. The study shows that water quality in Curry County is generally good. There are four basic sources of nonpoint pollution:

1) streambank erosion
2) sedimentation and microbacteriological chemical pollution from agricultural practices.
3) water withdrawal causing degradation of stream quality.
4) elevated water temperature.

These sources of pollutants are generally not traceable to a specific point source so they have to be treated as a problem related to the entire stream drainage system. Study of these problems by the state has revealed that several streams in the county may have problems with water quality from excessive water withdrawal (Floras Creek). streambank erosion (Floras Creek and Elk River), and elevated water temperature (Floras Creek). The composite of all these factors is that Floras Creek, especially downstream

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[1]Ruben Kretzschmar, (1981) DEQ Personal Communication

from the community of Langlois, is the most impacted stream with regard to nonpoint pollution.[1]

Curry County recognizes the problem of nonpoint pollution and has taken an active roll in correcting some of the factors which are contributory. Streambank erosion problems are being corrected by repair of site specific erosion sites with rip-rap and other structures, sedimentation is controlled by storm drainage structures and roads and other development features; and water temperature control is provided where riparian vegetation is planted or improved. These efforts of the county are augmented by the Curry Soil and Water Conservation District which also has active programs to stop soil erosion by agricultural practices, streambank erosion, and excessive water withdrawal due to irrigation.

6.4 SOLID WASTE

The Federal Environmental Protection Agency is the lead agency in regulating the management of solid waste. The Department of Environmental Quality has developed standards in accordance with these regulations and is given the task of working with local governments to develop plans for solid waste under the provisions of ORS 459. Curry County has complied with this law by submitting the Curry County Solid Waste Management Plan 1979-89.[2]

The Solid Waste Management Plan is designed to provide a coordinated county-wide method for collection, transportation, storage and disposal of solid waste. The plan generally consists of a description of the existing facilities for handling solid waste and a management scheme for the handling of solid waste in a safe efficient manner. As presently developed the plan covers the period from 1979 to the year 2000 with provisions for amendment and revision if conditions change with respect to solid waste disposal.

6.4.1 Existing Disposal Sites

Curry County authorizes the operation of one land fill disposal site, located at Port Orford. Also there are three transfer stations in the county which are located at Agness, Nesika Beach, and Wridge Creek.

The Port Orford disposal site consists of 27 acres and is located about one mile north-northwest of the City. This disposal site consists of a prepared trench that is

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1 DEQ (1978).
2 Curry County (1979).

covered with compacted soil twice weekly. Due to its location, this site has several advantages; 1) it is owned by Curry County; 2) it has a life span of 20 years; 3) is level so that surface water contamination is not a problem and 4) access is easily controlled. Also water run-off can be diverted and the fine sandy loam soil can easily be worked during heavy rains. New and future land fill trenches use both native vegatation and mechanical barriers for controlling wind blown debris and discarded white goods (water heaters, appliances, etc.) are transported away for recycling.

The Agness transfer station is located approximately one-half mile east of the Rogue River on Snout Creek Road. The property is owned by the U.S. Forest Service and the filled containers are removed by a franchised garbage collector. This station has several advantages. The access road is a well maintained gravel road, the bins are enclosed in a chain link fence that can be locked, the station is covered to prevent rain from entering the boxes, the boxes are located below grade to reduce scattering of debris, a sprinker system is provided in the event a fire occurs in a solid waste box, and containers can be removed frequently if needed for any reason. The major problem with this site is that it is unattended and the resident bear population has discovered it as a new feeding site although the U.S. Forest Service provides regular patrolling of the site on a cooperative basis.

The Nesika Beach transfer station is located approximately five and one-half miles north of the Gold Beach City Hall and serves the Gold Beach and Nesika Beach area residents. Incoming waste is separated into three 45 cubic yard boxes and removed by a franchised garbage collector. This site has two advantages, it is convenient to users and the access road is asphaltic concrete pavement. There are, however, many disadvantages. The property is owned by the Bonneville Power Administration and an electrical substation is planned, however, the site is over 40 acres in area so that there is room for a future land fill.

The Wridge Creek site is located on Highway 101 approximately 15 miles south of Gold Beach and 11 miles north of Brookings. It consists of both a burn pit and a trench disposal of ash, and a separation center. This site has two main advantages, the lease agreement is for a twenty year span, and the soils are acceptable for trench construction but is limited to ash disposal. It also serves as the transfer station for those people in the Brookings area that do not subscribed to commercial disposal.

Disadvantages to the site are that is inconvenient to use because of slopes and expansion would be costly.

Material collected at the various transfer sites is sorted and the combustible matter is transported to Brookings for incineration in the Brookings Energy Facility (BEF). The Brookings Energy Facility site is located in the City of Brookings near the South Coast Lumber Mill. This is a three acre site which houses the incinerator and only accepts solid waste from the transfer stations. Although energy is not being realized at the present, the county has plans to facilitate a recovery plant in the near future.

6.4.2 Resource Recovery from Waste

Curry County is facilitating resource recovery by several different methods. Currently the County has three separation-transfer stations described in section 6.4.1. Separation at transfer stations is advantageous because the material being separated is of higher quality and generally provides more income when sold. The major materials being recycled at this time is cardboard and white goods. Brookings Energy Facility recycles cardboard to Menasha Corporation at an equivalent adjusted cost for shipping rates to Coos Bay.[1] Other materials are potentially recoverable if an economic means of recycling can be developed.

6.5 NOISE POLLUTION

Noise pollution generally arises from some types of industrial and commercial uses, vehicles, airplanes, or certain recreational uses. Curry County does not have a problem with excessive noise due to its rural nature and abundant open space. Usually the easiest way to handle a noise problem is to separate the source from any conflicting use which is generally easy to accomplish in most areas of the county. Separation of potential noise sources from other use has been accomplished by zoning areas that are suitable for industrial and commercial use thereby isolating them from conflicting residential uses. Resource areas have zones which allow some industrial uses on a conditional use basis so that setbacks from adjacent conflicting uses will be established at the time of the quasi-judicial Planning Commission hearing.

Vehicular noise is a problem that is related to the

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[1]Dave Snyder (1981) Curry County Sanitarian personal communication

concentration of vehicles in the cities and is considered in the comprehensive plans for those jurisdictions. Some vehicular noise is created along U.S. 101 and the major county roads by heavy traffic. This type of vehicle noise is generally of a periodic nature and acceptable to residential uses. Also the County Zoning Ordinance requires a 35 foot setback from any road for the construction of a residence to help buffer the house from such noise.

Curry County has three aiports, two of which are located on county lands and one in the City of Gold Beach. Neither of the county airports pose a severe noise problem. The Cape Blanco Airport is surrounded by farmland with low density housing. The Brookings Airport is utilized mainly by single engine or small twin engine aircraft and the approach zones are sparsely populated. Neither airport has the capacity to facilitate jets or other large aircraft.

6.6 PLAN POLICIES FOR AIR, LAND, WATER RESOURCE QUALITY

Curry County wishes to maintain the quality of the air, land, and water resources of the state and thus adopt the following:

1) Curry County recognizes all applicable federal and state regulations concerning air, land, noise, and water quality and seeks their implementation to protect these resource qualities.

2) Curry County maintains a Department of Environmental Sanitation Department to implement the intent of these plan policies and their associated regulations.

3) Curry County will discourage activities which may lead to the degradation of the air, land, noise, and water resource quality through the implementation of its comprehensive plan.

4) Curry County will continue to encourage resource recovery via sepatation centers, recycling centers, and energy facilities.

5) Curry County will continue to promote the location of those businesses which may pose a noise nuisance problem into zones designated for such uses.

7. NATURAL HAZARDS

7.1 INTRODUCTION

Curry County has areas which are subject to various natural hazards which can cause loss of life and property. These hazards are related to various environmental processes and the natural characteristics of the region which under certain situations can cause a loss of life or property. The natural hazards which have been identified as being potential problems in certain areas of the county include the following:

1. flood hazard.
2. wind erosion/deposition.
3. mass movement of soil (earthflow and slump).
4. critical streambank erosion.

Areas potentially subject to these hazards have been mapped on a map at a scale of 1" = 1 mile (see Natural Hazard Inventory Map). Other natural hazards that are potential problems but are not confined to a specific area within the county include the following:

1. earthquakes.
2. wildfire.
3. high winds.
4. high groundwater.
5. shoreline erosion/deposition.

All of these natural hazards have potential impact on land use decisions in the county and should be considered in the planning process.

The principal sources of information regarding natural hazards in the county are the "Flood Insurance Rate Maps of Curry County, Oregon" developed by the U.S. Department of Housing and Urban Development for general location of flood hazard areas.[1] These maps are supplemented by more detailed studies of the Chetco, Winchuck, and Hunter Creek drainages for flood hazard done by the Curry County Soil and Water Conservation District and Curry County.[2] Information regarding geologic hazards has been derived from the report on Land Use Geology of Western Curry County, Oregon by the Oregon Department of Geology and Mineral Industries.[3]

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1 HUD (1978)
2 CSWCD (1980)
3 DOGAMI (1976)

Since many of these hazards are related to excess water, land form type, soil structure, and geologic structure or a combination of these factors, the effect of man's actions relative to these lands must be considered in all land uses in these areas.

Statewide Planning Goal 7 requires that a comprehensive plan provide "protection of life and property from natural disasters and hazards" by the identification of areas that are potentially subject to natural hazards and provide plan policies and implementing measures to protect life and property from such hazards. Specifically this Goal states that:

> "Developments subject to damage or that could result in loss of life shall not be planned nor located in known areas of natural disasters and hazards without appropriate safe guards. Plans shall be based on an inventory of known areas of natural disaster and hazard."

Natural hazards related to coastal processes are also addressed in Statewide Planning Goals 17 and 18. Goal 17 Coastal Shorelands requires that "land use plans, implementing actions and permit reviews shall include consideration of the critical relationships between coastal shorelands and resources of coastal waters, and of the geologic and hydrologic hazards associated with coastal shorelands." Goal 18, Beaches and Dunes, requires that comprehensive plans "reduce the hazard to human life and property from natural or man-induced actions associated with beach and dune areas."[1]

The Curry County Comprehensive plan has complied with these goal requirements by preparing an inventory of these hazards and providing plan policies with implementation measures that provide protection of human life and property from these hazards.

7.2 DESCRIPTION OF NATURAL HAZARDS

7.2.1 Stream Flooding

Flooding is caused by temporary large increases in discharge or by a variety of possible modifications of the stream channels which could increase the water level of the stream. Most flooding in the county is related to heavy rainfall on saturated soils, steep terrain or impervious rock which result in the water quickly running off the uplands and inundating lowlands areas. Flooding in some cases, especially the Rogue River, may also be related to rapid melting of the snow pack in the headwaters of the stream. Urbanization can also affect stream flooding by altering infiltration of water into the ground, concentrating

[1] LCDC (1978)

the flow of water into artificial drainage systems, and increase peak runoff volumes and levels.

The areas subject to inundation by flood waters are defined as floodplains whereas the actual channels that carry the fast moving flood waters are called floodways. Because of the steep terrain and narrow canyons typical of most streams in the county, the areas subject to stream flooding are somewhat limited. However, the lower valleys of the larger rivers have floodplains adjacent to the immediate stream channel which are subject to periodic flooding. The coastal terrace area north of Floras Lake and west of the community of Langlois is subject to flooding by Floras Creek because the ocean outlet to the creek is normally blocked by coastal dunes.

Floodplains for the coastal sections of the major coastal streams have been defined by the U.S. Department of Housing and Urban Development in the Flood Insurance Rate Maps. These maps show the 100 year flood boundary (1% flood probability) for all of the streams and flood elevations or the lower Rogue River. Detailed flood hazard studies have been made of the Winchuck, Chetco and Hunter Creek drainages which define the 100 year and 500 year flood boundaries and provide flood elevations.

Land use in the floodplains of streams north of the Rogue River is generally for agricultural and forestry purposes. The Rogue River, Hunter Creek, Chetco River and Winchuck River have residential, commercial and industrial uses which could be inundated. The floods of 1964 caused extensive property damage on the Rogue and Chetco Rivers and reached the extent of an intermediate regional flood although the recurrence frequency of the flood has not been established.

Flooding destroys structures by current action, siltation, and water damage which are direct impacts upon developmental land uses. It also causes losses on resource lands by scouring topsoil, eroding streambanks, silting of agricultural lands and killing livestock. General damage can be inflicted by isolating dwellings and structures, disrupting transportation, and polluting water supplies. Floods in Curry County have risen slow enough to allow evacuation of people so that loss of life has been minimal but torrential rains combined with saturated soil conditions can cause localized flash flooding.

The federal government established the National Flood Insurance Program in 1964 which is administered by the U.S. Department of Housing and Urban Development (HUD). This program defines floodplains for all streams based on a prediction of the 100 year flood from hydrological factors.

In 1973 the federal Flood Disaster Protection Act was passed which makes flood insurance a mandatory condition for receiving any mortgage loan, grant or funding that is federally connected to build any improvement in a HUD identified flood-prone area. This made virtually all normal means of financing construction subject to the flood insurance program.

Curry County has adopted the HUD flood insurance program through its Floodplain Ordinance which is administered by the County Building Official. All cities in the county are also eligible for the program based on their flood hazard ordinances. These ordinances are administered through the County Building Official and require that:

a) structures shall be elevated above the flood hazard level, or

b) any part of the structure located within the floodplain will have to be floodproofed to the level of the base flood.

Implementation of these ordinances throughout the county provides protection for all new development from stream flooding hazards. Participation by Curry County in the HUD Flood Insurance Program provides a means of protection against financial loss for those structures presently located in flood prone areas.

7.2.2 Ocean Flooding

Ocean flooding is the periodic flooding of low lying coastal areas by the ocean due to one or a combination of natural phenomena. The most probable natural processes which could cause ocean flooding in this area include: tidal flooding, storm surge, tsunami, and storm waves. These phenomena can occur either separately or in combination with each other to produce an elevated level of the ocean and cause property damage as well as loss of life.

Tidal flooding is caused by the periodic rise and fall of sea level which is caused by the gravitational attraction of the moon on the ocean water body. Generally, tides are the bulge of the ocean water caused by the gravitational attraction of the moon on the side of the earth facing the moon with a similar bulge on the opposite side of the earth in response to centrifugal acceleration. The sun exerts a similar response on the earth's oceans but to a lesser extent so there are in fact, two sets of tides. When the tides of the sun and moon coincide the tidal levels are additive causing extreme tides (spring tides). On the other hand when the effects of the sun and moon tend to cancel each other very small tidal changes occur (neap tides).

Tide elevations are measured at different places along the coast and then averaged to arrive at a mean sea level elevation for the ocean. Often the average elevation of low tides is statistically determined to give the mean lower low water elevation which is used as the datum on most charts and maps. The highest predicted tide in the county is around six feet above mean sea level. These tides flood the highest marshes and adjoining flood plains.

Storm surge is the periodic rise of sea level above predicted tides due to low barometric pressure and onshore wind. Low barometric pressure causes the sea surface to rise in response to the lowering of the air pressure at a rate of about one foot per inch of mercury air pressure. The maximum possible storm surge resulting from fluctuation in barometric pressure is two to three feet. However, storm surge is often accompanied by wind set-up or the piling of water against the shore by winds blowing onshore. The maximum possible rise in water elevation by wind set-up is one or two feet. High waves breaking on the shore can also cause a set-up or elevation of water level that is approximately 10-20% of the wave height. Therefore, in the case of very large waves the water level could be raised as much two to four feet by wave set-up. Storm surge, wind and wave set-up are additive factors which can create a higher elevation of water than each one individually. Storm surge in Curry County probably would be in the range of 4 to 7 feet above normal tidal level. An extreme storm along the Curry County coast in January 1939 caused sufficient set-up to sweep waves over the sand spit at Garrison Lake and flooded the lowlands at the mouth of Elk River.[1]

7.2.3 Tsunami

Tsunamis are periodic waves generated at sea by earthquakes or violent volcanic eruptions. While at sea these waves are seldom over a foot in height but as they approach the shore they grow greatly in height. The largest tsunami on record worldwide was estimated at 120 feet high, but the height of a tsunami at any given locality is determined by the magnitude of the distrubance creating the wave, the distance from the generation site to shore, nature of the shore at the locality and the run-up of the tsunami when it breaks and the water surges onto the land. Tsunamis of sufficient height to cause flooding of lowlands have occurred along the Curry County coast with the Alaskan earthquake of March 27, 1964, causing a tsunami that was 9.4 feet high at Gold Beach. When considering the potential hazard of a tsunami one has to assume that the tsunami could occur at a high tide which means that water levels could reach 14 to 15 feet above mean sea level and flood extensive coastal areas.[2]

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1 Curry County Reporter (1939)
2 DOGAMI (1976)

7.2.4 Wind Erosion and Deposition

Areas that have loose sand which is subject to movement by wind could create a hazard to developmental uses of the land. This type of hazard is confined to the shoreline areas where beaches and active coastal dunes are found. Curry County has four such areas; the shoreline from the northern county line south to Floras Lake, the shoreline from the mouth of Elk River to Garrison Lake, an area at the mouth of Euchre Creek, and an area near the mouth of Pistol River. In all four cases the blowing sand has created a small dune field or a dune which extends along the coast parallel to shore. At present there are few developmental uses located in these areas so that wind movement of sand has not been a natural hazard problem. However, any future land use actions in these areas should involve consideration of the wind erosion or deposition of sand as a potential hazard.

7.2.5 Mass Movement of Soil

Mass movement is the downslope movement of soil and bedrock in response to gravity usually in a localized area. Such movements have been classified into various types on the basis of : 1) type of movement, 2) rate of movement, 3) type of material and 4) water content.[1] Figure 7.2.A shows this classification of mass movements and describes the typical morphology of these hazards as found in Curry County. The understanding and treatment of these hazards is keyed to recognition of the type of mass movement and the extent of area involved in the hazard.

On steep and very steep slopes rock slides occur where pieces of rock break away from the bedrock and rapidly fall down the slope. On less extreme slopes debris slides or avalanches occur which involve a large amount of rock which has disaggregated into several pieces or a moving mass. Where there is higher water content which promotes a flowing movement it is then termed a debris flow. Moderately steep slopes often cause a type of mass movement where the failure is along a curving surface which extends to some depth into the slope. These mass movements are commonly called slump and earthflow. These types of mass movement may affect a larger area depending upon the type of rock involved, slope, topographic setting and other factors.[1]

Soil creep is the random movement of soil and rock material downslope in response to gravity and other factors. The randomness of the movement, and lack of a definite shear plane distinguish this type of mass movement from the others. Soil creep, slow and shallow earthflow are closely associated with moderate slopes.[1]

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[1] DOGAMI (1976)

Slope	Type	Water content	Velocity	Description
Very steep	Rockfall	Minimal, water in cracks may initiate slide	Extremely rapid	Falling rock wedged loose by roots, frost action or water; wedging action concentrated along joints, fractures, bedding, or faults
	Rockslide	Minimal	Rapid	Sliding and rolling rock resulting from wedging as above; includes talus; deposits often obscured by vegetation
Steep	Debris slide	Low	Very rapid to moderately rapid	Sliding rock and disaggregated material; failure along a plane parallel to the slope; debris slides as a unit; includes sliding of thin soil mat over impermeable bedrock
	Debris avalanche	Low to moderate	Very rapid	Sliding of rock and disaggregated material on a plane parallel to the slope; differs from debris slide in the breaking of the slide mass into pieces
	Debris flow	High	Very rapid	Flow of rock and disaggregated material on a plane parallel to slope; moves as a slurry because of high water content
Moderately steep	Rapid earthflow	Variable	Rapid	Flow of rock and/or soil material along innumerable shear planes; characterized by irregularities of slope, drainage, and soil; sag ponds, etc.
	Slow earthflow	Variable	Slow	Flow of rock and soil material along innumerable shear planes; irregularities of slope, drainage, and soil often obscured by weathering processes
	Slump	Variable	Slow to rapid	Slip of rock and/or soil material along a curved basal shear plane; backward rotation of slide mass; sag ponds, prominent headscarp
Moderately steep to steep	Creep	Variable	Very slow	Random, particle by particle movement of soil and rock fragments downslope in response to gravity and other random and surficial external forces such as root action, freeze-thaw and wet-dry expansion and contraction, and animal activity; greatest displacement at surface; no slip plane; forms convex slopes

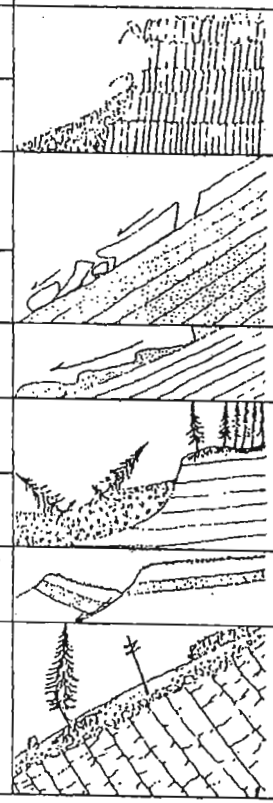

FIGURE 7.2.A CLASSIFICATION OF MASS MOVEMENTS

Source: DOGAMI (1976)

All forms of mass movement occur on slopes where the downslope component of gravity exceeds the shear resistence of the material on the slope. Control of mass movement and primary consideration of this hazard should be given toward minimizing the downslope component of gravity (i.e. loading on the slope) and maximizing the shear resistence of the material involved. The natural hazard element of the comprehensive plan has considered the problem of mass movement by mapping areas in which these types of mass movement may occur on the basis of slope characteristics, geology, geologic structure, drainage and available information about existing land slides in the county.

The various types of mass movement have differing impacts upon man and the environment. Steep or very steep slope failures such as rockfalls are catastrophic and can cause loss of life, destruction of roads and structures, destruction of timber and degradation of streams. Earthflows and slump can cause differential settling, ground water flooding and septic tank failure. Soil creep is generally an insignificant hazard because it only affects the upper few feet of soil and weathered bedrock and is a slow movement. Structures that only penetrate shallow depths and are in place for long periods of time may show the effect of soil creep; such as fence posts, and utility poles.

5.2.6 Streambank Erosion

Streams have a natural balance between their velocity, discharge volume, sediment load, and channel characteristics which affect whether they erode their banks. In the upland parts of most stream drainages the velocity and discharge volume of the stream is such that it actively is eroding its bed and stream banks. Most streams therefore, are confined to narrow, steep walled canyons which are being actively eroded in the headwaters of their drainage basins. Lowland areas of most stream drainage basins differ in that the stream often changes its characteristics so that its velocity is lower and its channel is often wider, and shallower. With a lower gradient in the lowlands the sediment carrying capacity of the stream is less and part of the stream load is deposited as a gravel bar. Stream deposition of this type is generally not a problem and actually an asset in that these gravel bars provide a valuable source of construction aggregate.

The deposition of gravel bars in the stream channel also has another affect on the stream which can cause a natural hazard in the form of critical streambank erosion. When a stream redirects its flow or meanders it must locally erode the bank to create its channel causing a site specific

serious erosion problem. Such streambank erosion problems are common to the lower reaches of most of the streams in Curry County. Practically every bend along streams such as Floras Creek, Elk River, Pistol River, etc. have some form of streambank erosion problem; however, since most of these problem sites are in the stream floodplain they are not a threat to life or structure because development uses have not been allowed. The problem is serious from the standpoint of losing soils which have high agricultural capability and resource use. Most of the lands which are subject to this type of erosion are pasture lands used for ranching and dairying. Presently most problems of this type are solved by the installation of revetment or other structure which armors the bank from the stream.

7.2.7 Earthquakes

Curry County is subject to earthquakes both local and from distant sources. The geologic mapping of the county indicates that all faults with the possible exception of the Port Orford Shear Zone are inactive.[1] Study of seismicity of the region indicates that the major earthquake activity in this area occurs offshore. An earthquake epicenter was reported for the Port Orford area in 1873 but the same earthquake was more severe in the Crescent City area so it appears that the epicenter was actually to the south.[2] Assuming that the closest active fault to the county is the Mendicino Fracture Zone which is 100 km from the county line, the largest credible earthquake at that source would create an earthquake intensity of VIII on the Mercalli Scale in Curry County. An earthquake of this intensity could cause considerable damage to substantial structures and the fall of chimneys, stacks, etc. An earthquake of this magnitude would be similar to the earthquake felt in Port Orford in 1873.

The potential damage from an earthquake is related to siting factors of the structure and the type of construction of the structure. The worst site for a structure is upon fine grained soils with high water content which can undergo a total loss of strength upon shaking by an earthquake. In Curry County soils of this type can be found in lowland areas which are saturated with water. Areas with these characteristics are predominantly confined to the flood plain areas of streams where the siting of houses is controlled by the County Building Official under the floodplain ordinance.

7.2.8 Wildfire

Wildfire poses a natural hazard to human life, structures and natural environment of Curry County. Fires can start in any forested area and quickly spread when driven by wind.

1 DOGAMI (1976)
2 Berg and Baker (1963)

The thick brush, especially gorse, common to logged areas are a fire hazard during the late summer and fall dry season so that fire can be a hazard in almost any part of the county. In areas away from U.S. 101 fires can get out of control before fire fighting equipment can reach the site due to the lack of accessibility by road. Fire protection in most of the county is provided by the U.S. Forest Service on federal lands and the Coos Forest Protective Association on private lands.

Structural fire protection is available in some parts of the county by rural fire departments. Land use planning issues develop with regard to fire protection and the siting of development uses where there is a potential fire hazard.

7.2.9 High Winds and Storms

Most of the coastal areas of Curry County are subject to high winds during the fall and winter months. Winter storm systems which come ashore from the north Pacific Ocean can produce winds with gust velocities over 100 mph. The Columbus Day Storm of 1962 produced a peak wind velocity of 140 mph which destroyed the anemometer at Cape Blanco. Generally these severe winds come from a southerly or westerly quadrant and are most destructive to exposed areas facing those directions. Land use planning issues which are affected by this natural hazard generally involve subdivision design and siting permits in areas which are known to be affected by wind. Construction aspects of buildings and mobile homes are covered by the Uniform Building Code which is administered by the County Building Official.

7.2.10 High Groundwater

High groundwater and ponding of water are localized problems which are most common in coastal lowlands, and some places on the marine terraces. The high groundwater levels are a problem which could potentially cause uneven settling of a structure, flooding of basements, and septic system failure. Failure of a septic system could lead to the more general problem of pollution of domestic water supply. Since high groundwater level is a site specific problem it has been considered at the development permit stage of planning by the County Environmental Sanitation and Building Departments.

7.2.11 Shoreline Erosion and Deposition

Shoreline erosion occurs along most of the Curry County coast as is shown by the prevalence of seacliffs along the coastal terraces and the dramatic headlands created by wave

erosion. Erosion rates vary depending upon bedrock type, geological structures, and other related factors. Hard, resistant bedrock types form sea stacks, high sea cliffs and headlands such as Cape Sebastian, Sisters Rocks, and Humbug Mountain along the county coast. Wave erosion in these areas causes periodic rock falls and avalanches but the general rate of erosion is very slow. Moderately hard bedrock types typical of the marine terrace deposits form seacliffs with narrow beaches. When there are large storm waves, the waves overtop the beach and attack the base of the cliff to cause erosion and eventual cliff retreat.

The only areas of wave deposition along the county coast is in the vicinity of the jetty systems at the mouth of the Rogue River and the Chetco River and at Port Orford where accreations has been noted in the lee of the port breakwater.

In general, longshore transport of sand on the beaches in Curry County is toward the south in summer and northerly during the winter in response to the prevailing winds and waves.[1] There have been high values for the gross quantities of sand transported along the beaches in the county; however, the net transport in one direction when averaged annually may be negligible.

Natural hazards presented by wave erosion and seacliff retreat are possible only when development uses are allowed too close to an eroding beach or seacliff. Presently there is little development in areas where there is erosion and much of the county coastline cannot be developed due to public ownership of the shoreland. Planning issues that can be affected by this type of hazard involve siting and design of subdivisions and siting of individual structures. Shoreline erosion hazards are considered as part of the subdivision review process so that geological factors are evaluated with respect to wave erosion. Individual development permits are evaluated by the County Building Official who has the power to require evaluation by a licensed geologist.

7.3 PLAN POLICIES FOR NATURAL HAZARDS

Natural hazards of various types and potential severity have been identified in many parts of Curry County and it has been determined that these hazards have a significant impact on land use in these areas. A general description of all potential natural hazards and maps identifying lands affected by then have been included in the Comprehensive Plan to facilitate consideration of hazards in future land use decisions. The county has also determined the following

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1 DOGAMI (1976)

policies with regard to natural hazards and has adopted various requirements as ordinances to implement these policies.

1. Curry County seeks to protect its citizens from natural hazards by identifying such hazards and informing them of the potential for loss of life and property from the hazard.
2. Curry County, where possible, has provided opportunities to mitigate the identified hazards by site evaluation assessments, and construction techniques through its administration of the Uniform Building Code.
3. Curry County has designated certain lands which are subject to severe and frequent natural hazards with a conservation plan designation to indicate their special significance and limit their use to those which will not be impacted by the hazard.
4. Curry County has identified those lands which are subject to periodic flooding and seeks to further identify such lands in flood studies.
5. Curry County participates in the National Flood Insurance Program for the protection of its citizens presently located in flood plains and to further limit future development in areas which are subject to flooding.
6. Curry County implements its flood hazard policies with a county ordinance administered by the County Building Official.
7. Curry County recognizes that areas within the county are subject to mass movements of soil and bedrock and has mapped these areas as part of the comprehensive plan and development in these areas be allowed only after the specific building site has been approved by a geologist or engineering geologist licensed by the State of Oregon and that all special construction techniques be designed by an engineer licensed by the State of Oregon.
8. Curry County recognized that many streams in the county have critical streambank erosion problems resulting in the loss of valuable land and has encouraged the use of and has participated in the installation of bank protection devices.
9. Curry County has developed an Emergency Services program to assist its citizens in the possibility of a general disaster by natural hazard such as earthquake, storm, or tsunami.

10. Curry County has an organized mutual aid agreement between all the city fire departments in the county to supress structutal fires and minimize property loss.

11. Curry County subscribes to the Uniform Building Code which provides construction standards that are designed to protect against earthquakes, high winds and ground-water.

CHAPTER 8 RECREATION

8.1 INTRODUCTION

Recreational resources are of major importance to Curry County, meeting both local needs and providing opportunities for visitors to the area. Tourism plays a vital role in the area's economy. Tourists are attracted, in part, due to the developed recreation sites, while the primary attraction is the area's natural resources including the rugged coastline, the numerous rivers, marine and anadromous fisheries, and the wild scenic mountain areas. The period of heavy recreational demand coincides with the school vacation period and the large influx of tourists experienced by coastal Oregon.

Goal 8 requires that the county "satisfy the recreational needs of the citizens of the state and visitors". In addition, the Goal requires that "the requirements for meeting such needs now and in the future shall be planned by governmental agencies having responsibility for recreation areas, facilities, and opportunities.[1]

Guidelines for Goal 8 specify that the comprehensive plan for the county must include the following:

1. An inventory of the recreation needs of the county based on public wants and desires; and the resources of the area which are available to meet recreation needs.
2. The State Comprehensive Outdoor Recreation Plan can be used as the guide when planning recreation resources.
3. The comprehensive plan should give a high priority to enhancing recreation opportunities on public waters and shorelines, state and federal scenic waterways, and Oregon Recreation Trails.
4. The comprehensive plan in providing for the recreation needs of the county should consider the carrying capacity of the air, land and water resources of the county.

Curry County has inventoried both its recreational needs and its recreational resources for the comprehensive plan. This information was then utilized to develop plan policies for recreation in the county during the planning period.

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[1]LCDC (1978)

8.2 STATEWIDE COMPREHENSIVE OUTDOOR RECREATION PLAN

The Statewide Comprehensive Outdoor Recreation Plan, (SCORP) analyzes recreational activity in the State of Oregon. Current participation patterns are correlated to demand figures, defined as an individual's desire to participate in a certain activity, and then compared to the existing supply of facilities and areas thereby defining increased needs for future use.

Those activities generating the most participation include dispersed use activities such as sightseeing, pleasure hikes, picnicking and fishing. Table 8.2.A reflects total participation in recreational activities generated within Curry County. By contrast Table 8.2.B reflects recreational trips received in the county from both in and out of state residents. A comparison indicates that while day use activities remain prominent, camping assumes a much more important role in the range of outdoor activities when considering non-resident recreational demand. Table 8.2.C compares the percentage of population statewide participating in a given activity with the percentage of population within Curry County participating. This indicates that the county experiences lower participation levels than the state in most activities. Of all the activity occuring in Curry County, fishing accounted for 25.6%, motorboating 13%, picnicking 12.7%, pleasure walking 12.6%, and bicycling 12%.[1]

The SCORP also provides information concerning the origin of recreational activities occuring in the county. Within Curry County, residents account for 96.8% of all visitations, and 3.2% of visitations are imported from other Oregon counties, primarily Jackson, Coos, Deschutes, and Lake. Conversely, 26.4% of the visitations by residents of Curry County will take place in the county; and 73.6% of the visitations will be exported to other Oregon counties, primarily Multnomah (39%), Jackson (18.7%), Klamath (8.9%), Coos (4.6%), Josephine (1.2%), Lane (1.1%) and Benton (0.2%).[1] It is apparent that on a statewide level, Curry County exports more tourists than it receives from other areas of the state. Again, comparisons must be made with the figures in Table 8.2.B reflecting visitations from both in-state and out-of-state residents. The large influx of tourists to the county consists primarily of out-of-state residents. Also of interest in documenting this influx is the proportion of revenue received by the non-resident surcharge on overnight camping. In the fiscal year beginning July 1979, the four overnight parks in Curry County managed by the state generated 16.4% of their total revenues from the non-resident surcharge, and 10.8% of the revenue for the state park system as a whole originated from this charge.

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[1] SCORP Technical Document 1, Demand Bulletin

8.3 RECREATIONAL USE OF OPEN SPACE

Probably the most important recreational resource in the county consists of the large acreages of open space lands in public ownership. These lands allow for dispersed recreational activities requiring larger blocks of land such as wildlife uses and hiking. Of unique character within the Siskiyou National Forest are the Kalmiopsis Wilderness, 169,000 acres, created in 1964, and the Wild Rogue Wilderness, 36,700 acres, created in 1978. The Kalmiopsis has some of the most rugged and inaccessible country in the Siskiyou National Forest. The flora is noteworthy in that there is an abundance of rare and unusual plants. Because of its harshness, it is one of the most lightly used wilderness areas in the Pacific Northwest. Figures for 1977 indicate that the Kalmiopsis accounted for less than 1.2% of the wilderness visitor days in the National Forests of Oregon and Washington.[1]

The National Wild and Scenic Rivers System was established in 1968. The Rogue River was one of the eight rivers originally included in the system, and the Illinois River was one of fifty-eight other rivers in the U.S. designated for further study for possible inclusion in the system. The intent of the system is to maintain the rivers in their free-flowing state and to protect the river corridor with regard to aesthetic and scenic features. Both the Rogue and Illinois Rivers are also included in the Oregon State Scenic Waterway System. Recreational activities are the primary use on both the Rogue and Illinois and include boating, fishing, camping, swimming, picnicking, and sightseeing. Recreational use in the wild area classification of the Rogue has increased to the point where the number of users is limited by a permit system which is used during the summer months.

As previously noted, fishing accounts for a substantial portion of the recreational activity in the county and the annual value of fish production attributable to the Siskiyou National Forest is the highest per unit land area in the National Forest System. Sport fishing centers around trout and steelhead during the summer months; whereas winter steelhead and salmon provide recreation during the fall and winter. The most productive rivers for gamefish are the Chetco, Rogue-Illinois, and the Elk, although, fish can be caught on virtually any year round flowing river or stream in the county. The ocean provides still another source of recreational fishing either from shore or boat. There are three harbors in the county which have facilities for recreational fisherman. Charter boats and guides are located at all three harbors as well as launching facilities for private boats. The ocean can also be fished from shore at any beach in the county or the jetties which are located at the three harbors.

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[1]USDA - U.S. Forest Service (1979)

Table 8.2.A

Curry County Recreational Activities 1975-90

Ranking	Activity	Total Activity Occasions 1975	1980	1985	1990
1	Sightseeing	238,008	246,448	261,640	273,456
2	Pleasure Walking	162,291	268,046	178,405	186,462
3	Picnicking	138,180	143,080	151,900	158,760
4	Fishing	68,385	70,810	75,175	78,570
5	Bicycling	65,565	67,890	72,075	75,330
6	Outdoor Games	61,476	63,656	67,580	70,632
7	Off Road Vehicles	50,619	52,414	55,646	58,158
8	Tennis	43,710	45,260	48,050	50,220
9	Hunting	34,686	35,916	38,130	39,852
10	Horseback Riding	25,662	26,572	28,210	29,484
11	Non Pool Swimming	24,111	24,966	26,505	27,702
12	Golf	20,727	21,462	22,785	23,814
13	Water Skiing	17,343	17,958	19,065	19,926
14	Hiking	14,523	15,038	15,965	16,686
15	Pool Swimming	14,523	15,038	15,965	16,686
16	Camping	12,831	13,286	14,105	14,742
17	Motor Boating	12,126	12,556	13,330	13,932
18	Other	9,024	9,344	9,920	10,368
19	Downhill Skiing	5,640	5,840	6,200	6,480
20	Float Boating	5,499	5,694	6,045	6,318
21	Cross Country Skiing	1,551	1,606	1,705	1,782
22	Snow Activities	141	146	155	162
	TOTAL	1,026,621	1,063,026	1,128,555	1,179,522

Source: Statewide Comprehensive Outdoor Recreation Plan, Technical Document I, Demand Bulletin, 1975, Table 23

Table 8.2.B

Total Trips Received

Ranking	Activity			
1	Other	1,272,300	1,456,100	1,900,700
2	Sightseeing	670,100	743,400	937,600
3	Picnicking	560,200	632,800	812,700
4	Walking and Hiking	529,300	582,700	708,800
5	Camping	270,600	302,400	377,200
6	Outdoor Games	212,200	248,500	345,600
7	Swimming	176,600	203,900	275,800
8	Bicycling	169,300	194,200	260,400
9	Fishing	134,900	144,300	163,700
10	Boating	101,300	113,600	142,300
11	Golfing	59,000	63,200	72,300
12	Horseback Riding	51,000	56,200	70,400
13	Outdoor Sports and Cultural Events	45,700	50,000	59,800
14	Water Skiing	34,800	39,300	51,200
15	Hunting	28,100	31,300	36,400
16	Snow Activities	1,600	1,800	2,000
	TOTAL	4,317,000	4,863,700	6,216,900

Source: Statewide Comprehensive Outdoor Recreation Plan, Technical Document 1, Demand Bulletin, 1975, Table 57

Table 8.2.C

Percentage of Population Participating in Activity in Year

Activity	% Participation Statewide	% Participating in Curry County
Camping	54.13	22.85
Picnic	73.04	65.71
Pool Swimming	40.08	20.00
Non Pool Swimming	34.40	11.42
Sightseeing	42.92	49.19
Fishing	47.60	42.85
Motor Boating	27.27	22.85
Floatboating	11.26	2.57
Waterskiing	14.47	10.30
Pleasure Waling	45.71	28.57
Hiking	35.16	14.28
Hunting	18.83	17.14
Outdoor Games	32.66	29.67
Bicycling	35.36	17.52
Golf	10.60	6.70
Tennis	16.54	16.49
Horseback Riding	10.57	10.30
Downhill Skiing	7.53	3.09
Cross Country Skiing	2.98	1.39
Snow Activities	25.42	0.50
Off Road Vehicle	14.54	16.35
Other	3.51	1.82

Source: Statewide Comprehensive Outdoor Recreation Plan, Technical Document 1, Demand Bulletin, 1975, Tables 2 and 23

8.4 OCEAN ACCESS

The Pacific Ocean is a major feature to the recreational activity of the county. There are approximately 80 miles of coastline in the county, most of which is in public ownership, so there are numerous viewpoints and beach access points for public use. Public access to ocean beaches is an essential criteria in determining availability for recreational use. Table 8.4.A refers to those access points identified by the State Highway Division Program Review prepared in May of 1978. Those sites identified as developed are in public ownership, either partially or fully developed with parking and toilet facilities, and provide trail or roadway to the beach. Those sites identified as access needed are areas of anticipated public need for access and facility development, based on recreation attractions, accessibility, and feasibility of a project. While forty separate beach access sites are identified, only 18 of these are presently classified as developed.

The Oregon Coast Hiking Trail follows the coast through Curry County (see Recreation Resources Inventory Map). This recreation trail is intended to be located on the beach or ocean shoreline wherever possible, however, in the central and southern parts of the county is located on U.S. 101 due to the rugged shoreline.

8.5 RECREATION FACILITIES

Curry County has inventoried its recreational resources as required under Goal 8. All existing recreational sites in the county were located on a 1" = 1 mile base map showing their ownership and extent. In addition, the location of the Oregon Coast Hiking Trail, the Oregon Coast Bicycle Trail, the Coast Range Trail and the Rogue River Trails are shown. This inventory map is supplemented with the following information regarding the recreational opportunities at these sites and their present level of use. The following tables depict various occupancy data for the state parks within the county. These tables regarding use of park facilities in the county reveal that Harris Beach State Park is by far the most heavily used of any located in the county with Humbug State Park being second in use. This is easily understandable when one considers that Harris Beach is the first state park encountered in Oregon when coming from California, it is located on U.S. 101, and it is located near Brookings, the largest population center in the county. Humbug Park is also located on U.S. 101 which accounts for its higher use than Loeb or Cape Blanco which are located several miles off the main highway.

Table 8.4.A

Public Beach Access

	Site	Status	Acreage	Facilities
1.	Floras Lake - North	N		
2.	Floras Lake - Central	U	20	
3.	Floras Lake - South	U	20	
4.	Cape Blanco - North	U	20	
5.	Cape Blanco - South	D	20	S10
6.	Garrison Beach	U	12	S50
7.	Port Orford Harbor	D		S10, T
8.	Battle Rock	D	3	S50, T,P
9.	Humbug Mtn. - Hubbard Cr.	U	19	
10.	Humbug Mtn. - Rocky Pt.	U	5	
11.	Humbug Mtn. - Brush Cr	C	10	S10, T
12.	Lookout Rock	U	20	S10
13.	Mussel Cr. (Commercial)	D		
14.	Sisters Rock	N	20	
15.	Greggs Creek	U	3	
16.	Ophir	D	10	S30, T,P
17.	Nesika Beach	N		
18.	Wakeman Beach	N		
19.	Otter Point - North	D	50	S10
20.	Otter Point - South	U	35	
21.	Rogue River Reef	U		
22.	Rogue River - North Jetty	D		S100
23.	Rogue River - South Jetty	D		S100, T
24.	Gold Beach	U		S200
25.	Hunter Creek	D	3	S30
26.	Hunter's Island	D	2	S20
27.	Myer's Creek	D	4	S20
28.	Pistol River - North	D	25	S10
29.	Pistol River - South	D	50	S40
30.	Mack Arch Cove	N		
31.	Boardman - Hoostenader	U	25	
32.	Boardman - Whaleshead	D	50	S50,T,P
33.	Boardman - Lone Ranch	D	35	S30, T,P
34.	Taylor Creek	N		
35.	Harris Beach - North	D	50	S70, T,P
36.	Harris Beach - South	D	15	S10
37.	Brookings - Macklyn Cove	N		
38.	Chetco Cove - S. Jetty	D		S50, T
39.	McVay Rock	U	19	
40.	Winchuck	U	7	

Legend:
Status: D-Developed U-Undeveloped N-Site Needed S-Number of Parking Spaces T-Toilet Facilities P-Picnic Tables

Source: State Highway Division, Beach Access Program Review, May, 1978

Table 8.5.A

Overnight Occupancy Rate of Spaces Available, 1980

Park	Number of sites	Percentages June	July	Aug.	Sept.	Average
Cape Blanco	58	23	39	48	22	33
Harris Beach	151	42	99	99	69	77
Humbug Mtn.	105	35	81	92	50	65
Loeb	53	15	57	70	7	37

Region 3 Total 59% State Total 53% County Average 53%

Source: ODOT, Parks and Recreation Division, Overnight Camp Occupancy

Table 8.5.B

Day Visitor Attendance

Park	1971-72	1973-74	1975-76	1979-80
Battle Rock	374,629	313,400	403,346	172,496
Cape Sebastian	75,465	57,096	75,668	68,248
Geisel Monument	---	28,188	57,176	50,344
Harris Beach	697,138	307,490	568,824	336,206
Humbug Mtn.	72,980	64,980	79,495	83,522
Loeb	70,406	77,344	101,238	89,480
Arch Rock	76,510	60,184	79,000	---
House Rock	72,198	54,770	58,232	---
Lone Ranch	102,516	119,479	113,418	---
Whaleshead	72,138	80,022	59,534	---
Boardman				

Source: ODOT, Parks and Recreation Division, Day Use Parks and Recreation Areas.

Table 8.5.C

Revenue - Park User Fees July 1, 1979 - June 30, 1980

Park	Overnight Camping	Non Resident Surcharge	% of Total Revenue Generated by Out-of-State Surcharge
Cape Blanco	14,444	3,536	19.0%
Harris Beach	103,358	18,876	14.8
Humbug	36,703	10,162	21.0
Loeb	10,350	1,380	11.2
State Total	2,165,618	306,984	10.9%

Source: ODOT Parks and Recreation Division, Revenue

Table 8.5.D

Overnight Camping by the Public (in Camper Nights)

Park	75-76	76-77	77-78	79-80	79-80
Cape Blanco	10,285	11,723	12,866	10,695	8,070
Harris Beach	73,451	78,808	67,597	65,130	66,527
Humbug Mt.	32,442	35,169	31,637	28,690	23,424
Loeb	17,647	15,686	14,247	12,513	7,546

Source: ODOT, Parks and Recreation Division, Overnight Camping by the Public

This data reveals the extent to which recreational use in the county by visitors is confined to the immediate vicinity of U.S. 101. It is very obvious that in terms of recreational use Curry County is largely used by transient tourists and not destination tourists. The single exception to this conclusion is possibly the recreation fishermen who come to fish the local waters for salmon and steelhead.

Table 8.5.E is the inventory of recreational facilities of Curry County which is keyed to the Recreational Resources Inventory Map for site location.

Table 8.5.E

RECREATION FACILITIES IN CURRY COUNTY

		Acreage	Activities
BLM			
1.	Sixes River	60	C,S,F,P,BA
2.	Cold Spring		C,P
3.	Tucker Flat	2	C,F,P
4.	Palmer Butte	5	P,S
5.	Rogue River Trail	40 miles length	C,D,P,H
USFS			
1.	McGribble	2	C,F,P,H
2.	Panter Creek	2	C,F,P,H
3.	Butler Bar	4	C,F,P
4.	Lobster Creek		P,F,BA
5.	Illahe	5	C,S,F,P,H
6.	Foster Bar		BA
7.	Brushy Bar	3	C,S,F,P,H
8.	Quosatana	8	C,F,P
9.	Wildhorse	2	C,S,P,H
10.	Elko	2	C,F,P
11.	Pine Point	2	P,S
12.	Fairview	1	C,S,P,H
13.	Long Ridge	1	C,S,P,H
14.	Little Redwood	2	C,S,F,P
15.	Winchuck	6,8	C,S,F,P
16.	Sourdough	1	C,F,P
STATE			
1.	Floras Lake State Park	1361	Undeveloped
2.	Port Orford Cedar Forest Wayside	33	Undeveloped
3.	Cape Blanco State Park	1880	C,P,S,OB,BA,F
4.	Garrison Beach State Park	12	Undeveloped
5.	Garrison Lake		
6.	Port Orford Head State Wayside	96	H,S
8.	Humbug Mtn. State Park	1842	OB,C,P,S,H
9.	Ophir	5	P,OB,S
10.	Geisel Monument State Wayside	4	P
11.	Otter Point State Wayside	85	OB,S
12.	Buena Vista Ocean State Wayside	55	OB,S
13.	Cape Sebastian State Park	1104	H,S
14.	Pistol River State Park	440	OB
15.	Carpenterville-Brookings Forest Wayside	22	C,OB,S

Table 8.5.E (continued)

Recreation Facilities in Curry County

	Acreage	Activities
STATE		
16. Samuel H. Boardman State Park	1473	C,OB,S
17. Thomas Creek	5	P,OB,S
18. Loeb State Park	320	C,P,F
19. Harris Beach State Park	171	OB,C,P,S
20. McVay Rock State Wayside	19	Undeveloped
21. Winchuck State Wayside	7	OB,F
22. Azalea State Park	36	P
COUNTY		
1. Boice-Cope	9.5	F,BA,P
2. Edson Creek Park	75.5	F,C,P,BA
3. Garrison Lake	200	F,BA
4. Lobster Creek Youth Camp	47	Youth Camp
5. Agness		
6. Sport Haven Trailer Park; Port of Brookings	4.6	C,OB
OTHER		
1. Cedar Bend Golf Course	82.6	Golfing
2. Huntley Park	15	C,H,F,BA
3. Port of Gold Beach (Sandy Camp)	4.6	C,OB,F,BA
4. Boy Scout Camp	80	C,H
5. Port of Brookings	43	C,F,BA

Sources:

Curry County, 1966, Map of Curry County, Oregon, showing county parks and recreation sites.

Remington, J., and J. Keating, 1979, Trails for Oregon - A Plan for a Recreation Trails System, Oregon Department of Transportation, 34 p.

US Department of Agriculture, 1975, Map of Siskiyou National Forest, showing all Forest Service and Bureau of Land Management Recreation Sites and Rogue River Trail

US Department of Agriculture, Siskiyou National Forest, 1978, The Lower Rogue River Trail Description

Abbreviations:

C - Camping
F - Fishing
P - Picnicking
H - Hiking
OB - Ocean Beaches
BA - Boat Access
S - Scenic View

8.5.1. Recreational Trails

Curry County has inventoried the following recreational trails under the requirements of Goal 5; the Oregon Coast Range Trail, Rogue River Trail, the Oregon Coast Hiking Trail and the Coast Bike Trail which are shown on the Recreational Resources Inventory Map. The present status of these trails under OAR 660-16-000 is discussed below:

1. Oregon Coast Range Trail - this trail is designated to be a hiking trail which will eventually extend from California to Washington through the Oregon Coast Mountain Range; presently the trail is conceptual and its exact route through Curry County has not been defined.

2. Rogue River Trail - this is a developed hiking trail which extends easterly along the Rogue River through the county largely on federal land which is within the area designated by both the federal and state government as a wild and scenic river corridor.

3. Oregon Coast Hiking Trail - this is a specifically identified and partially developed hiking trail which follows the Oregon Coast and in most areas of Curry County is located on the public beach, on state park lands or on the U.S. 101 highway right-of-way where it is adjacent to the shoreline.

4. Coast Bike Trail - this is a bicycle trail which follows U.S. 101 through Curry County and is a specifically designated bike path located within the highway right-of-way.

Goal 5 requires that each of these trails be reviewed under the inventory process and classified according to the "location, quality and quantity" of information available about each trail. Preliminary inventory information regarding these trails indicates that they should be classified as follows:

a) the Oregon Coast Range Trail is placed in a Goal 5 1B catagory since the trail is conceptually planned but the specific location of the trail is not known.

b) the Rogue River Trail, the Oregon Coast Hiking Trail, and the Coast Bike Trail are in a Goal 5 1C catagory because these trails are specifically located and developed at this time.

The 1B Goal 5 inventory catagory allows the county to delay any further consideration of this recreational trail with respect to the comprehensive plan until further information is available regarding its specific location and intended use. Curry County has developed a plan policy regarding this trail and its potential incorporation into the plan as a recreational facility. The present reference to the Oregon Coast Range Trail within the Curry County Comprehensive Plan will be to change its designation to "potential" recreational trail.

The 1C Goal 5 inventory catagory requires that the trails of this type must be included in the inventory and also be analyzed in the planning process with respect to any economic, social, environmental and energy consequences resulting from the designated uses of the lands they traverse. The analysis of these trails then leads to a comprehensive plan program for either protecting the trail or limiting any conflicting uses.

The Rogue River Trail is located along the north bank of the Rogue River extending from just east of Lobster Creek to Agness and from Illahe to the easterly county line. The trail has been specifically located for this entire distance and has been in use throughout the history of Curry County. The present recreational trail was rebuilt from the historic trail in 1975 and has now been improved for recreational hiking throughout the wild and scenic segments of the Rogue River. Potential conflicts which can result from recreational trails arise from actual trail construction (i.e. removal of timber from trail right-of-way, preservation of timber for scenic and open space uses, etc.) and from recreational use of the trail (i.e. people using the trail and interfering with other resource uses). In the case of the Rogue River Trail such conflicts have been resolved by the zoning designation of the lands the trail traverses and by the designation of lands adjacent to the river for wild and scenic purposes by federal and state government.

The Curry County Comprehensive Plan has designated virtually all lands that this trail traverses for forestry (Timber zoning) and also applied an overlay provision for the scenic waterway (see Section 2.1810 "Scenic Waterway Provisions"). These implementing measures allow for "outdoor recreational facilities" as a conditional use and any use allowed by the state and federal scenic waterway regulations. The scenic waterway regulations preserve that area for recreational purposes so that the Rogue River Trail presently has a protected status.

The Oregon Coast Hiking Trail is located on the beach through most of northern Curry County (north county line to Port Orford) which is public property below the 16 foot elevation. The only exception being where the trail crosses Cape Blanco which is within a state park. From Port Orford to Gold Beach the trail follows the U.S. 101 right-of-way and state park trails due to the rugged sea cliff coastline. Just north of Ophir the trail leaves the highway and follows the beach to the mouth of the Rogue River. In this trail section there are two places where the trail leaves the beach (Hubbard Mound and Otter Point) and crosses upland areas. At Hubbard Mound the trail crosses private property which is an open space area zoned Conservation (CN) by the county plan. The trail also has an upland crossing at Otter Point which is a state wayside that is zoned Public Facilities (PF) by the county plan. Both of these zone designations allow for recreational facilities such as trails. South of the City of Gold Beach to Cape Sebastian the trail follows the beach and is located on public beach lands. At Cape Sebastian the trail crosses to Myers Beach, on the south side of the point over an established upland trail in the park. From Cape Sebastian to Pistol River the trail again follows the beach where it rejoins the U.S. 101 right-of-way due to the rugged seacliff coastal topography. The coastline remains too rugged for hiking from Pistol River to the City of Brookings so that the trail follows the highway; however, sub-trails to the west of the highway along the seacliffs have been developed in Boardman State Park. South of the Chetco River the trail follows the beach below the cliffs to the California state line except at the Winchuck River where it crosses the highway bridge. Since most of the Coast Hiking Trail lies either on public beach or public highway right-of-way which is designated for Public Facilities use by the comprehensive plan there is no identified conflicts with the plan designation and the recreational trail can be considered to be in a protected status.

The Coast Bike Trail passes through Curry County following U.S. 101 from the northerly county line to the California state line. This trail is part of the statewide bicycle trail system which is intended for recreational bicycle touring. The trail is specifically located along the right-of-way for U.S. 101 in the rural parts of the county; however, alternate routes are located in some of the incorporated cities of the county. In most parts of the county the trail is an asphalt-paved bike path constructed on the shoulders of the highway. The defined bike path provides a safe place for recreational users to travel without causing a conflict with the normal automobile and truck traffic. Most of the Coast Bike Trail is located within the state highway right-of-way which is zoned for Public Facilities (PF) and such recreational use is allowed as a recreational facility.

Location of the Coast Bike Trail on public land which is zoned for such public transportation uses indicates that this recreational trail has a protected status.

Four recreational trails located in Curry County have been inventoried as part of the Comprehensive Plan. Three of the trails are specifically located and are presently developed for recreational use. These trails all have protected status by virtue of the zoning of the public lands on which they have been located. The Oregon Coast Range Trail is presently only conceptual in design and has not yet been designated at any specific location in Curry County. The status of this trail will be reviewed at the first scheduled plan update to determine whether it will be included in the comprehensive plan inventory.

8.6 RECREATIONAL NEEDS

The Statewide Comprehensive Ourdoor Recreation Plan identifies general trends in statewide recreational use. There has been a shift from a low number of users with high participation to a larger number of users with fewer visitations. People are taking fewer vacations and traveling less distance. There is a higher usage of local area parks and a greatly increased demand in non-energy consumptive activities while energy consumptive activities remain relatively stable except for ORV use which has increased in demand. Recreational needs in Oregon were determined through SCORP by comparison of the demand data outlined earlier in terms of actual use, estimates of peak day use, expressed desires to use specific facilities, and the existing capacity of facilities. Table 8.6.A outlines net needs for Curry County through 1990.

The needs shown in the SCORP reflect the difference between damand, the desire to participate in a particular activity and supply, the opportunity represented by lands or facilities available. Desire to participate being difficult to measure, actual participation levels were taken as the indication of demand. This information was derived from a 1975 telephone survey conducted by the Oregon State Parks and Recreation Branch, and reported in the SCORP Demand Bulletin. These demand figures are then projected into the future based on population changes. As can be seen, Curry County meets or exceeds all of the presently identified needs except for bridle trails and ORV trails as a rural recreational resource. Other needs identified which are more urban in nature are neighborhood, community and district parks which are more appropriately discussed in the comprehensive plans for the incorporated cities in the county.

Table 8.6.A

Curry County Needs

Facility	Unit	Supply	Gross Need	Net Need 1975	Net Need 1980	Net Need 1990
Campsites	Site	1,417	688	(729)	(648)	(474)
Picnic	Table	209	631	422	503	705
Swimming Pools	Pool	1	1	0	0	1
Boat Launch Lane	Lane	14	9	(5)	(4)	(2)
Swimming Beach	Feet	10,750	329	(10,421)	(10,370)	(10,238)
Walking & Hiking Trails	Mile	74	42	(32)	(28)	(18)
Biking Trails	Mile	74	6	(68)	(67)	(64)
Bridle Trails	Mile	0	9	9	9	12
Ball Fields	Field	6	6	0	0	1
Tennis Court	Court	6	6	0	0	1
All Purpose Courts	Court	2	6	0	0	1
Off-Road Vehicle Trails	Mile	0	5	5	5	6
Golf Course	Holes	13	9	(4)	(4)	(4)
Neighborhood Parks	Acres	12.0	70.5	58.5	61.0	69.0
Community Parks	Acres	92.0	141.0	49.0	54.0	70.0
District Parks	Acres	0.0	211.5	211.5	219.0	243.0
Regional Parks	Acres	4,163.0	353.0	(3,810.0)	(3,798.0)	(3,758.0)

Source: SCORP Appendix C

Numbers in parentheses are where supply is excess of need.

Although the SCORP plan supposedly represents a projection of recreational needs for the county, it presents a misleading and inaccurate picture of actual recreational needs. The SCORP projects a need for bridle trails and off-road vehicle trails as a recreational need, however, the county has an abundance of opportunities for these uses on federal lands since most former logging roads and tracts are available for ORV and horse use. In addition, virtually all trails in the county are open to equestrian use so that they can fill this need.

8.7 PLAN POLICIES REGARDING RECREATION

Curry County recognizes the importance of meeting the recreational needs of its residents and visitors and adopts the following policies with regard to recreation:

1. Curry County seeks to provide recreational opportunities for the resident and tourist populations and for future increases in these populations by identifying areas suitable for such use in the plan.

2. Curry County supports improved transportation facilities to allow increased recreational use and encourage development of increased access to existing facilities and attractions.

3. Curry County encourages the private development of recreational facilities within the county.

4. Curry County encourages cluster development to maximize open space within residential developments.

5. Curry County desires to enhance recreational opportunities on public waters, recognized scenic areas, and Oregon Recreational Trails including provision of adequate support services.

6. Curry County will review the status of the Coast Range Hiking Trail at each scheduled plan update and determine whether there is sufficient information regarding the proposed trail in the comprehensive plan at that time.

7. Curry County will coordinate with the Oregon Department of Transportation in completing economic, social, environmental and energy consequence analysis as required by OAR 660-16-000 if and when a specific route is proposed for the incomplete trails.

8. Curry County encourages the protection and enhancement of fish and wildlife on public land to enhance the recreational appeal of the county.

9. Curry County will coordinate with the appropriate State and Federal agencies to identify and establish adequate recreational boating including boat ramps and access.

10. Curry County has several undeveloped state parks and state recreation sites that, if developed with intensive uses, could adversely impact adjacent lands; therefore the State of Oregon shall submit <u>any</u> developmental plans for these areas to Curry County for public review and conditional use permit as provided in the Public Facilities designation and land use zone.

11. Curry County recognizes those recreation trails or segments of trails identified 1C resources in the plan inventory as significant resources and will coordinate with ODOT for their future use and protection.

9. ECONOMY

9.1 INTRODUCTION

The economic base of a county provides its residents with a means of livelihood and maintains the flow of goods and money into and through the area to the benefit of the people. In order for the county to remain economically stable it must develop and support its economic base. This chapter of the comprehensive plan describes the economic structure of the county, including the resources and problems of the local economy; and sets forth policies by which the county intends to improve the economy of the area.

Goal 9 requires that comprehensive plans help "diversify and improve the economy of the state". It further states that plans and policies shall contribute to a stable and healthy economy in all regions of the state. The economic inventory shall include "areas suitable for economic growth and activity after taking into consideration the health of the current economic base; materials and energy availability, labor market factors, transportation, current market forces, availability of renewable and non-renewable resources, availability of lands; and pollution control requirements".[1]

Economic development projections should take into account the availability of the necessary natural resources to support the expanded industrial development and associated populations. The plan should also consider the social, environmental, energy and economic impacts upon the resident population of the county. The comprehensive plan should also emphasize the expansion of and increased productivity of existing industries and economic sectors as a means of strengthening local economic development. A major effort in the economic planning of the area should include the diversification of the air, land and water resources of the county.

9.2 ECONOMIC STRUCTURE OF THE COUNTY

The economic indicator most often used in analyzing the economic structure of a region is employment. Employment indicates where most people derive their source of income and therefore are dependent for a livelihood and general well being. As has been discussed earlier (section 3.5) the largest sector in the county economy by employment is the forest products industry. Table 9.2A shows the economic structure of the county by employment for the county and the state in 1979.

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[1] LCDC (1978)

This table reflects the major dependence of the county on the lumber and wood products industry when compared to the state in general with almost 20% of the county's total employment being within that sector. The percentage of employment within the county that is engaged in "other" manufacturing is much smaller than such employment statewide. These major differences illustrate the lack of industrial diversification within the county.[1]

TABLE 9.2A

EMPLOYMENT STRUCTURE BY EMPLOYMENT - 1979

	COUNTY		STATE	
Total Employment	5,870	100 %	1,134,000	100 %
Self Employed, Agriculture and Miscellaneous	1,120	19.1%	83,000	7.3%
Non Agricultural, Wage and salary	4,750	80.9%	1,051,000	92.7%
Manufacturing	1,360	23.1%	227,300	20.0%
Lumber and Wood Products	1,110	18.9%	80,8000	7.1%
Food Products	120	2.0%	25,100	2.2%
Other	130	2.2%	121,400	10.7%
Non Manufacturing	3,390	57.8%	823,700	72.7%
Construction	170	2.9%	53,000	4.7%
Transportation	190	3.3%	59,700	5.3%
Trade	970	16.5%	256,500	22.6%
Finance, Insurance and Real Estate	210	3.6%	69,000	6.1%
Service	540	9.2%	186,200	16.4%
Government	1,310	22.3%	199,300	17.6%

Source: Oregon State Employment Division

The economic structure of the county has also been evaluated in terms of the value of the resource product and compared to the same figures on the statewide level.

TABLE 9.2 B

GROSS VALUE OF RESOURCE PRODUCT - 1976

Agriculture	$ 4,500,000.	15%	$ 1,044,720,000	24%
Logs (@$150/m bd ft)	23,500,000.	75%	3,025,800,000	71%
Fish catch	1,900,000.	6%	41,706,000	1%
Mineral product	1,600,000.	5%	160,957,000	4%
	$31,500,000.	100%	$ 4,273,183,000	100%

Compiled from various sources

[1] CCDEIA (1980)

As can be seen from Table 9.2B the economic structure of Curry County in terms of resource product produced is quite similar to the state as a whole. The most obvious exception being that agricultural production in Curry County is lower than for the state in general.

The economic structure of an area can also be considered in terms of basic and non-basic sectors. These two sectors are fundamentally different in character in that the basic sector supports the rest of the economy whereas the non-basic sector can be viewed as induced effects which are dependent upon the basic elements. The commonly accepted activities which are part of the basic sector are:

1) manufacturing
2) extractive activities (logging, mining and fishing;)and
3) agriculture

Other activities such as commercial sales and services are part of the non-basic sector and generally arise to fill the needs of the basic activities and the people associated with them. Most economic studies result in an analysis which relates the basic and non-basic sectors through an employment multiplier which estimates the total number of basic and non-basic jobs created per basic job gained. Recent estimates of the employment multiplier for this area range from 2.0 to 2.6.[1]

9.2.1 Forest and Wood Products

The forest and wood products industry is the dominant single industry in the economic structure of Curry County. It is so important to the overall economy of the county that any impact to the industry carries on through the whole structure to practically all non-basic activities.

Perhaps the most important function of the comprehensive plan will be to identify trends of this industry in the local area and utilize that information to make policies that will improve the economic situation in the future.

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[1] CCDEIA (1980)

Table 9.2 C shows the number of persons by the forest products industry in Curry County and the percent that those jobs represent of the total employment in the county. As can be seen the trend over the past twenty years has been a steady decline both in the number of jobs and in the percentage of jobs provided by the forest industry. This steady decline in the forest industry is related to long-term timber supply shortages as discussed in Section 4.2.2. Other factors which have a contributory effect on the industry are; the high level of interest rates and housing starts, the U.S. Forest Service budget, restrictions on herbicide use, additional lands placed in reserved classification, and the rising competition from the southeastern part of the United States. Timber production in Curry County peaked in 1960 and has declined ever since, with most production now coming from public lands. Future production from these lands is governed by public policy which is based on principals of land management that involve a controlled cut of the timber resource and other environmental considerations (see Section 4.2.2). Consequently the forest products industry in the county will continue to be plagued by timber shortages for the forseeable future.

The remarkable rise in interest rates during the past two years has brought the domestic homebuilding industry to a virtual standstill. Since the home construction industry is the major consumer of forest products the impact has been directly felt in the local economy. The response of the local forest products industry to this downturn in the market has been by curtailing production with the closure of two mills in the county and reduced work schedules at the other two mills.

Other factors that have added to the decline of the forest industry include the reduction of the U.S.Forest Service budget by the congress and administration which cut jobs and programs such as reforestation that allow more timber to be harvested. Also the partial ban on herbicides by the Environmental Protection Agency (EPA) has limited the options of the government and the forest industry in the management of their timber resource. The use of herbicides in timber management accelerated the growth of commercial species so that a greater cut was allowed of the existing trees in anticipation of a quicker replacement by new growth. A January, 1979, study by the USFS and Oregon Department of Forestry projected that the banning of 2,4,5T would cause an annual harvest loss to over 10% of the state timber harvest. This could amount to an employment

TABLE 9.2 C

AVERAGE ANNUAL LUMBER AND WOOD PRODUCTS INDUSTRY EMPLOYMENT

Year	Number of Jobs	Percent of Total Employment
1960	1,880	42.6
1961	1,840	42.5
1962	1,950	43.0
1963	2,160	44.2
1964	2,110	42.3
1965	1,830	39.1
1966	1,650	37.1
1967	1,570	34.7
1968	1,540	34.5
1969	1,480	33.0
1970	1,310	29.6
1971	1,300	27.5
1972	1,500	27.4
1973	1,480	27.1
1974	1,350	25.6
1975	1,050	21.2
1976	1,040	20.1
1977	1,090	19.5
1978	1,180	19.9
1979	1,110	18.9

Source: Oregon State Employment Division

reduction of around 20,000 jobs statewide in the basic and non-basic sectors of the state economy.[1]

The increased competition from the southeastern United States has become an important factor in the decline of the Oregon forest products industry. The faster growth rates in the southern states, a large "harvest ready" timber inventory that was grown since WW II, lower labor and living costs, and the predominance of private land that is free of government management constraints has resulted in a forest industry to the south in recent years. This movement of the forest industry to the southern region is likely to continue during the next 20 years.

The future of the forest products industry in Curry County is reasonably uncertain at this time because of the multitude of factors which control its destiny over the planning period of this comprehensive plan. Employment fluctuations due to market forces are typically short term phenomena and do not affect long term projections for decrease in employment. The long term projection for decrease in employment in the forest products industry is likely to continue due to the following:

1) competition from other timber production regions;
2) a decrease in the availability of new raw materials;
3) increasing productivity in the face of a constant or declining timber supply.[1]

The Coos, Curry, Douglas Economic Improvement Association has evaluated the future of the forest products industry in these three counties in terms of three scenarios which range from optimistic to pessimistic situations in terms of timber production.[1] The three scenarios assume the following:

Scenario A, Maximum Projection: The maximum harvest alternatives previously considered by USFS occur on all five contributing National Forests.

Scenario B, Intermediate Projection: The minimum harvest alternatives previously considered materialize, but no erosion of harvest levels in connection with RARE occurs.

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[1] CCDEIA (1980)

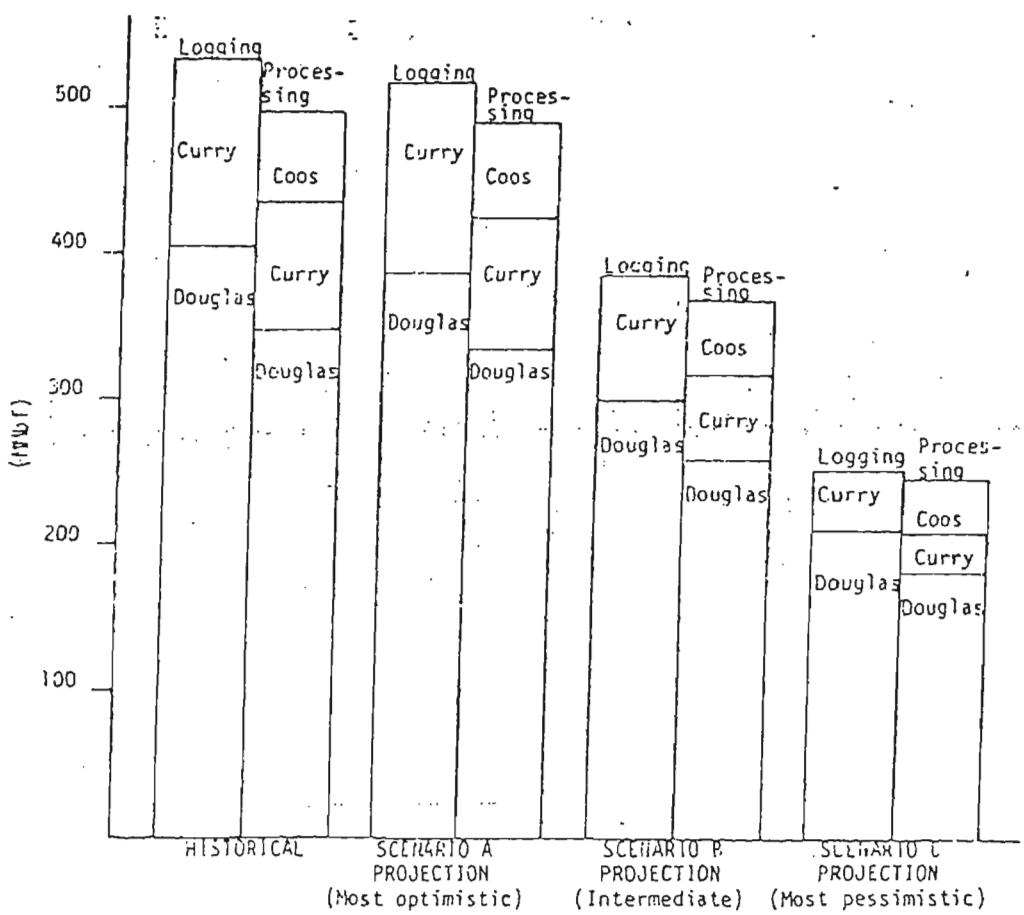
Scenario C, Minimum Projection: Not only do minimum harvest alternatives occur, but levels are further and independently depressed by maximum reductions of the timberland base through RARE, with corresponding reductions off Forest-wide harvests.

Source: Projection of Future Job Losses in the Timber Industry in the CCD District Due to Timber Supply Decline and Productivity Increases; CCD, April, 1978.

Based on these assumptions the timber production can be converted into annual logging and processing volumes. Figure 9.2A shows the potential logging and processing volumes which could be achieved under these three scenarios in comparison to the historical volumes.

FIGURE 9.2 A

ANNUAL LOGGING/PROCESSING VOLUMES FOR USFS TIMBER, CCD DISTRICT



Source: CCDEIA (1980)

As can be seen, the most optimistic scenario is slightly less than the historical annual volumes and the most pessimistic scenario is only one half the historical annual volume. The annual logging/processing volumes are then converted to job losses due to timber availability and productivity factors. Table 9.2 D shows the potential job losses in the Coos, Curry and Douglas County areas.

TABLE 9.2.D

PROJECTED TOTAL CCD DISTRICT JOB LOSSES DUE TO ALL IDENTIFIED TIMBER AVAILABILITY AND PRODUCTIVITY INFLUENCES

	1980's	1990's	2000's
Forest Industry Lands	0	2,657	5,315
Other Private Lands	0	0	0
USFS Lands: Scenario A	710	1,666	2,467
Scenario B	2,650	3,369	3,971
Scenario C	4,590	5,071	5,473
Other Public Lands	204	273	330
Total with Scenario A	914	4,596	8,112
Total with Scenario B	2,854	6,299	9,616
Total with Scenario C	4,794	8,001	11,118

Source: CCDEIA (1980)

All scenarios indicate that there will continue to be job losses in the forest products industry regardless of which projection is used for timber availability from U.S. Forest Service Lands.

9.2.2 Agriculture

Agriculture ranks second in the county economic structure in terms of gross value of product (see table 3.5C) but among the lowest sectors in terms of employment. Chapter 3 of the comprehensive plan gives a complete assessment of the agricultural practices and productivity of the county with a discussion of agricultural income (see section 3.5).

During the past few years Curry County has lost employment in agriculture which is parallel to national and regional trends. Table 9.2 E shows agricultural employment in the county for the years 1972-1979 which indicates a drop of 20 jobs in 1975.

TABLE 9.2 E

AGRICULTURAL EMPLOYMENT

Year	Jobs	Total Employment	%
1972	220	----	----
1973	220	----	----
1974	220	----	----
1975	200	----	----
1976	200	----	----
1977	200	5,550	3.6%
1978	200	5,980	3.3%
1979	200	5,870	3.4%

The continually decreasing employment in agriculture is related to steady increases in productivity and output in other sectors. Technology has the effect of increasing productivity in non-agricultural sectors to a greater extent than in agriculture so that labor is induced to shift out of agriculture and into sectors where it can be more productive (and more highly paid). This is a general economic trend that is usually accompanied by a fall in agricultural employment and agricultural output.[1]

Although employment in the agricultural sector has been falling, real agricultural output in the county has risen as can be seen by a comparison of gross farm sales for years 1971-1980 (see Table 3.5 B). This can be attributed to the greater productivity of the existing agricultural operations.

The size and structure of the county's agricultural industry is described in Chapter 3 and summarized in terms of economics in Table 3.4 A. Agriculture in the county is almost equally divided between animal products and cash crops. The principal annual products are cattle and calves, dairy products, and sheep products; whereas, cash crops are predominantly cranberries, Easter lilies, and other horticultural and nursery crops. Cattle production is specialized in the sense that cattle raised are those which are pastured prior to being placed in feed lots. There are no feed lots located in the region because growing conditions are not ideal for feed grains. Generally local ranchers sell to feed lots located in Klamath Falls, Northern California and Washington.

[1] CCDEIA (1980)

Sheep production has expanded in the county, especially onto hillside pastures, because of the generally better than average market, the immunity of sheep to toxic weeds, and the marketability of wool. Wool from Curry County is a medium wool which has lower oil content and has been receiving a premium from one processor who makes a special sweater.[1]

Crop production is predominantly from cranberries, Easter Lilies, and other nursery crops which are grown in the area due to unique soil and climatic conditions. These crops can only be grown in a few places so that they supply a market far beyond the local area thus becoming a county export product.

The future of the agricultural industry is subject to market cycles for the various agricultural products. Animal products such as cattle and sheep are subject to fluctuations of the market that are related to the demand for these products as well as the supply on a national if not international scale. The cash crops are specialty crops which have a seasonal demand so that the market is generally constant with regard to demand but fluctuates due to supply. For instance, if the weather, pests or other factor causes the failure of these crops the short supply has a dramatic effect on the market.

9.2.3 Commercial Fishing

The Curry County seafood industry has traditionally harvested species such as salmon, shrimp, crab and bottomfish which have been easy to market. However, larger national harvests of some of these species have changed the market conditions so that area fish processors may have to create new markets for seafood products.

Table 9.2 F shows the catch weights and values for all species caught in commercial volumes from county ports.

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1 CCDEIA

TABLE 9.2.F

TOTAL POUNDS AND ESTIMATED VALUE OF

COMMERCIAL FISH CATCH BY PORT, 1979

	Chinook Salmon	Coho Salmon	Crab	Tuna	Shrimp	Ground Fish	Total
Port Orford							
Pounds	187,000	123,000	1,271,000	-	86,000	1,623.000	3,290,000
Value	$ 479,000.	$ 278,000.	$ 1,042,000	-	$ 36,000	$ 438,000.	$ 2,273,000.
Gold Beach							
Pounds	255,000	66,000	62,000	16,000	35,000	293,000	717,000
Value	$ 627,000.	$ 149,000.	$ 51,000.	$ 11,000.	$ 15,000.	$ 79,000.	932,000.
Brookings							
Pounds	736,000	443,000	1,503,000	122,000	2,034,000	3,084,000	7,922,000
Value	1,884,000.	1,001,000.	1,232,000	81,000.	854,000.	833,000.	5,885,000.
State							
Pounds	4,322,000	5,532,000	14,932,000	3,100,000	28,322,000	61,334,000	117,542,000
Value	$11,064,000.	$12,502,000.	$12,244,000.	$2,046,000.	$11,895,000.	$16,560,000.	$ 66,402,000.

The salmon industry prior to the implementation of the Fishery Conservation and Management Act (FCMA) in 1977 was largely an unregulated venture with seasons that ran uninterrupted from mid-April to the end of October. The FCMA brought about a federal-state management system which regulates the salmon industry by 1) time and area closures, 2) gear restrictions, and 3) minimum size requirements. The shorter seasons, adverse timing of the seasons, the absence of a salmon enhancement program in the area's rivers has resulted in numerous problems for the county fishing fleet. The single source of strength to the salmon industry has been the high quality of the product. Troll caught coho and chinook salmon are highly prized in both the domestic and foreign markets.

The pink shrimp industry of California-Oregon-Washington is centered in Oregon and Curry County is located near some of the most productive shrimp beds on the coast. The Port of Brookings has benefited greatly from this location with shrimp processing being an important aspect of the local seasfood industry. Shrimp is also processed at Gold Beach and Port Orford to a more limited extent. The shrimp industry has been one of steady growth since the introduction of the automatic peeling machine which replaced hand picking. The Oregon Department of Fish and Wildlife expects future shrimp harvest to average 35 million pounds and that the Oregon shrimp beds should continue to produce at that level.

Dungeness crab is another high value fishery that contributes to the county seafood industry. Crab harvest has fluctuated widely in recent years. The principal problem with this fishery is marketing of the product when there is abundant supply especially when there are good catches of the competing King Crab and Tanner Crab. The future of the Dungeness Crab industry depends upon widening the market into areas which are unaccustomed to the product.

The albacore tuna industry is largely an alternative to the salmon industry for the many salmon fishermen who now must face the shortened seasons. Tuna are not plentiful in Oregon waters and catches have been relatively light; however, if tuna return to local waters the albacore tuna could become more prominent in the seafood industry.

The greatest increase in fish landings in Oregon ports has been in the bottomfish group with the biggest gains being in the harvest of Black Cod, Rockfish, Dover Sole and Pacific Ocean Perch.

The future of commercial fishing industry in the county is related to economic problems the industry in general has in its market. The two principal market problems are 1) the dependence on the restaurant trade which has been declining recently, and 2) the inflation of seafood prices created by foreign markets for U.S. seafood.[1] The best approach to maintaining a viable commercial fishery in the area is to develop a more balanced orientation toward the domestic market through competitive behavior in the areas of price, marketing, and quality control,[1] specifically by keeping prices competitive by controlling overhead costs, expanding into new markets, and developing quality control for the products to assure customer satisfaction.

9.2.4 Tourism

Tourism has generally been an important component of the county economy, due to the increased leisure time, improvements in transportation, available disposable income and a desire to see the country first hand. Curry County having about one third of the Oregon Coastline with some of the most scenic areas in the state is visited by tourists during the spring, summer and fall.

One indication of the increased local tourism can be seen in Table 9.2 G, the ridership on commercial jet boat trips on the Rogue River. There is a tremendous amount of tourist activity generated by the river.

TABLE 9.2.G
Commercial Jet Boat Ridership, 1970 and 1977

Year	Number of paying passengers	% Increase	Annual % Increase
1970	35,000 [1]	-	-
1977	44,900 [2]	28.3%	4.0%/yr.

Sources: [1] Port of Gold Beach Development Plan, Moreland, Unrugh, Smith; February 1973, p.23
[2] Oregon State Marine Board, Written Communication, July, 1978

1 CCDEIA (1980)

The tourism industry fluctuates with many factors as is noted by the 1979 season which was at 50% of 1978 levels due to the uncertainty of gasoline supplies and the high price of gasoline, food and accomodations. It appears that the decline was only temporary because the 1980 summer tourist season was greatly improved over 1979. Since it appears that high-priced gasoline is here to stay the tourism industry of the county may have to target itself toward the in-state tourist and develop destination attractions to retain visitors in the county.

9.2.5 Other

The other significant sector of the county economy is government employment. Government employment in Curry County has increased over the last few years and this is expected to continue in the future. Table 9.2H shows the trend for the county.

TABLE 9.2 H

Government Employees, Curry County, 1970-1977

Year	# of Employees	Annual Change	% Change
1970	860	-	-
1971	950	+90	+10.5%
1972	920	-30	- 3.2%
1973	950	+30	+ 3.2%
1974	1,040	+90	+ 9.5%
1975	1,100	+60	+ 5.8%
1976	1,110	+10	+ .9%
1977	1,250	+140	+12.6%

Source: CCD Comprehensive Econ. Dev. Strategy, 1977-78 Action Program, June 1978 p IV - 48, with staff computations.

The principal government employer is the federal government with most employees working in National Forest related jobs. Other employers are the State of Oregon, Curry County, and local governments. Although the general trend has been toward increasing numbers of employees in this sector recent changes in federal administration could bring about a change in this trend. Fiscal restraint and budget cutting at all levels of government may result in stabilization or even decreases in the number of government employees in Curry County during the next few years.

9.3 LABOR FORCE AND STRUCTURE

As shown in Figure 9.3 A the labor force is primarily concentrated in the lumber and wood products industry and in government employment. Wholesale and retail trade is the second largest private employer of of total county employment. The Curry County labor force has grown nearly twice as fast as the total employment since 1970. The civilian labor force increased 650 people between 1970-76 while total employment increased only 330 people.[1] (See Table 9.3 A.)

The race structure of the county labor force is dominated by an overwhelming white majority with other racial groups accounting for only 2.8% of the total county population (see Table 9.3 B). Female workers constitute about 34% of the total work force and are largely concentrated in the trade/service and government sectors of the economy.

TABLE 9.3 A

CHANGE IN EMPLOYMENT, CURRY COUNTY, 1970 - 1976

	Number	%		Number	%
Civilian Labor Force	+650	+12.2%	Total Employment	+330	+6.7%
Manufacturing	-200	-13.6%	Nonmanufacturing	+740	+5.1%
Lumber & Wood Products	-230	-16.8%	Construction	+40	+40.0%
Other Durable Goods	-0-	—	Transportation	-60	-31.6%
Food Products	-10	-7.7%	Trade	+250	+45.4%
Other Nondurable Goods	+30	+150.0%	Finance, etc.	+20	+15.4%
			Service & Misc.	+230	+82.1%
			Government	+260	+30.2%

Source: Prepared from Oregon State Employment Services Division data

As can be seen from the above analysis of the Curry County labor force the county has a labor force that is presently underutilized with more people available for jobs than there are jobs available. This labor force is made up of both men and women and is predominantly of the Caucasian race in similar proportions to the overall sex and race structure of the county general population.

9.3.1 Education, Work Experience and Wages

Education attainment is a key indicator of potential skill of an area's labor force. The level of education is indicative of the resources available in the local labor force. Table 9.3 C indicates that a large proportion of the county work force is capable of semi-skilled positions in manufacturing and assembly. Persons with less than a high school education or 48% of the county's population over 25 in 1970 are normally categorized in this area. The City of Brookings has a large percentage of its population over 25 with 12 or more years of education as compared to the county or national averages. People with this educational level are considered capable of high technology skills and managerial positions. The concentration of that population of the county with over 12 years of schooling in the Brookings area signifies the Brookings Harbor as a prime area for locating firms with high-technology skill requirements.[1]

That sector of the county labor force that is in the semi-skilled manufacturing and assembly sector is generally well trained with respect to work experience. Most workers in the manufacturing area are forest product mill workers who have received much of their training as on the job work experience. Thus these people constitute a valuable resource for that industry which is presently underutilized due to recent declines in that industry.

Average wage levels in Curry County are influenced by wage rates of the dominant lumber and wood products industry. These rates are well above those paid for other types of manufacturing and average over $5.00 per hour for an entry level position. Since labor costs are a principal consideration in plant site location,

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[1] CCDEIA (1979) Curry County Factbook

TABLE 9.3.B

CURRY COUNTY

Minority Status	Number		Percent distribution		Labor Force participation rate	
	Total	Female	Total	Female	Total	Female
	(1)	(2)	(3)	(4)	(5)	(6)
1. Total	13,006	6,425	100.0	100.0	54.6	34.3
2. White	12,799	6,323	98.4	98.4	54.6	34.5
3. Black	2	1	0	0	0	0
4. American Indian	180	86	1.4	1.3	NA	NA
5. Oriental	13	9	0.1	0.1	NA	NA
6. Other Races	12	6	0.1	0.1	1/ 49.4	1/ 15.9
7. Spanish-American	153	85	1.2	1.3	88.6	75.0
8. Minority Group*	360	187	2.8	2.9	67.6	42.5

1/ Includes American Indian and Oriental

Notes: NA = Not Available

*Sum of Spanish American and all races except white. Some duplication possible since Spanish American may include nonwhite races as well as white.

Sum of individual items may not equal totals because of rounding.

Source: Census of Population 1970

TABLE 9.3 C

YEARS OF EDUCATION, 1970

	Brookings	Curry County	Oregon	U.S.
Median School Year Completed	12.2	12.1	12.3	12.1
% of Population Over 25 with less than 5 yrs. completed	0.8	2.0	2.3	3.8
% of Population over 25 with 5 to 11 yrs. completed	42.9	46.0	37.6	42.1
% of Population over 25 with 12 to 15 yrs. completed	48.9	45.2	48.2	41.6
% of Population over 25 with 4 yrs. or more of college completed	7.3	6.8	11.7	10.6

Source: U.S. Bureau of the Census, 1970

-Note: U.S. Bureau of the Census information on education is not available for the Cities of Gold Beach and Port Orford.

the wage rates presented appear to be a slight disadvantage for the area. However, a recent survey conducted in a southern Oregon community revealed a labor force pool in which 70% of the respondents were willing to start at wages below $3.50 an hour. According to the Oregon Employment Services Division a labor force pool with similar wage demands exists in Curry County.

Table 9.3 D presents labor costs on a straight time hourly basis for office clerical and plant workers in selected occupations common to a variety of manufacturing and nonmanufacturing industries, from a survey of the southern Oregon communities of Eugene, Springfield, Medford, Klamath Falls, Grants Pass and Roseburg. The Oregon Employment Services Division indicated that similar wage rates would exist in Curry County. Table 9.3 E presents the average weekly earnings, average weekly hours, and the average hourly earnings of industrial production workers by major industry breakdown for the State of Oregon. This data excludes administrative, supervisory (above working foremen), technical, sales,

TABLE 9.3 D

SOUTHERN OREGON LABOR COSTS, AUGUST, 1976

Occupation	Hourly Earnings (all workers)[1] Mean	Median	Middle Range
Secretaries[2]	$4.35	$4.12	$3.65-4.80
Secretaries, Class A	4.78	4.45	4.45-5.08
Secretaries, Class B	4.98	4.98	4.78-5.18
Secretaries, Class C	4.76	4.46	4.21-5.13
Secretaries, Class D	4.08	3.65	3.46-4.44
Stenographers, General	5.31	5.97	3.89-6.39
Stenographers, Senior	3.99	4.03	3.80-4.28
Typists, Class B	3.20	3.23	2.74-3.55
File Clerks, Class B	2.80	2.92	2.50-3.07
Switchboard Operators	3.63	3.09	2.79-3.91
Keypunch Operators, Class A	3.78	3.63	3.50-4.03
Keypunch Operators, Class B	3.12	3.00	2.88-3.20
Electronics Technicians	6.60	7.06	6.02-7.13
Maintenance Carpenters	6.82	7.05	6.43-7.14
Maintenance Electricians	7.27	7.28	7.04-7.63
Maintenance Painters	7.60	7.88	-- --
Maintenance Machinist	7.28	7.31	7.15-7.38
Maintenance Mechanics (Machinery)	7.05	7.15	6.84-7.22
Maintenance Mechanics (Motor Vehicles)	7.09	7.15	6.95-7.23
Maintenance Pipefitters	7.14	7.04	6.93-7.38
Stationary Engineers	6.72	6.78	6.51-6.90
Boiler Tenders	5.94	5.92	5.87-6.24
Truckdrivers[2]	6.63	6.47	6.15-6.94
Light Truck	5.80	5.66	-- --
Medium Truck	6.06	6.03	5.78-7.75
Heavy Truck (Trailer)	6.67	6.45	6.16-6.94
Heavy Truck (Other than trailer)	6.97	6.85	6.50-7.75
Material Handling Laborers	6.23	5.88	5.58-6.87
Forklift Operators	5.89	6.05	5.96-6.24
Guards and Watchmen	5.21	5.35	5.20-5.93
Janitors, Porters, and Cleaners	4.87	5.64	4.12-5.70

[1]Excludes premium pay for overtime and for work on weekends, holidays, late shifts. Incentive payments, production bonuses and commission systems are included in the wages reported. Cost-of-living allowances are considered as part of the worker's regular pay.

[2]Includes workers other than those presented separately.

Source: U.S. Department of Labor, Bureau of Labor Statistics

TABLE 9.3E

AVERAGE HOURS AND EARNINGS OF
OREGON INDUSTRIAL PRODUCTION WORKERS 1/

Industry	Average Weekly Earnings June 2/ 1977	Average Weekly Hours June 1977	Average Hourly Earnings June 1977
TOTAL MANUFACTURING 3/	$260.55	39.9	$ 6.53
Durable Goods	271.17	40.9	6.63
Lumber & Wood Products	293.33	43.2	6.79
Logging & Sawmills	303.84	42.2	7.20
Veneer & Plywood	317.45	47.1	6.74
Millwork & Structural Wood	215.17	39.7	5.42
Mobile Homes	216.71	41.2	5.26
Other Wood Products	255.56	40.5	6.31
Furniture & Fixtures	177.45	35.0	5.07
Primary Metals	304.96	38.7	7.88
Fabricated Metal Prod.	235.36	37.8 3/	6.31
Machinery	258.75	37.5	6.90
Nondurable Goods	228.16	36.8	6.20
Food & Kindred Prod.	202.27	35.8	5.65
Canning & Preserving	154.52	32.6	4.74
Other Food Products	273.91	40.7	6.73
Textile Mill Products	142.88	37.6	3.80
Apparel	131.38	35.7	3.68
Paper & Allied Prod.	326.40	40.0	8.16
Printing & Publishing	234.92	34.7	6.77
CONTRACT CONSTRUCTION 3/	350.78	34.8	10.08
COMMUNICATIONS & UTILITIES 4/	273.92	39.3	6.97
TRADE 4/	189.89	35.1	5.41
Wholesale Trade	235.75	37.6	6.27
Retail Trade	166.45	33.9	4.91
BANKING & INSURANCE CARRIERS	145.84	NA	NA

1/ Figures are average gross hours and earnings of full and part-time workers worked or paid for, including overtime and shift premimum pay. Prepared in cooperation with the U.S. Dept. of Labor (1972 SIC)

2/ Preliminary

3/ Data for production workers only and exclude administrative, supervisory (above working foremen), technical, sales and office personnel.

4/ Data for non-supervisory employees only, excluding proprietors and executive personnel. Data for retail trade excludes eating and drinking plac

Source: Oregon State Employment Division

and office personnel. Table 9.3 F presents prevailing journeyman wage rates for basic building and specialty trades in Curry County.[1]

9.3.3 Unemployment

Curry County in recent years has had an unemployment rate that is significantly higher than either the state or the national average. Figure 9.3B shows the percentage of unemployed in the county for the period 1976-1979 as compared to state and national levels. As can be seen Curry County unemployment generally follows state and national trends but often exceeds those levels when there is general high unemployment.

TABLE 9.3 F

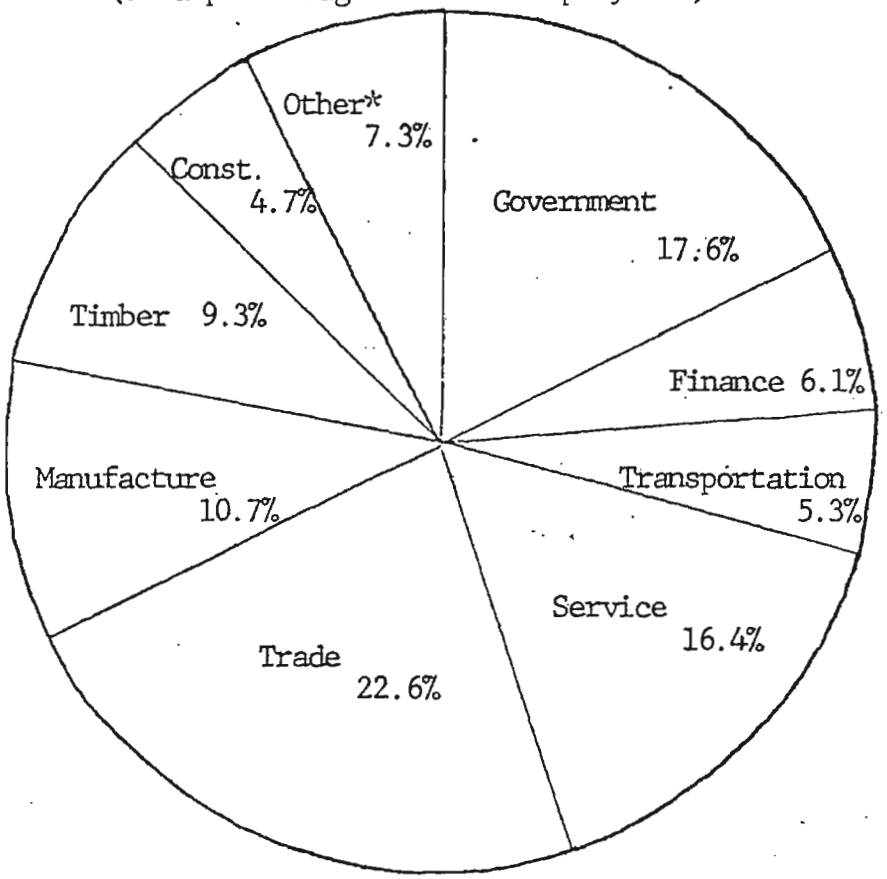
PREVAILING JOURNEYMAN WAGE RATES IN CURRY COUNTY JULY 1, 1977

Occupation	Average Straight Time Hourly Wage	Average Hourly Cost of Benefits
Carpenter	$10.65	$1.93
Millwrights	10.90	1.93
Piledrivers	10.75	1.93
Cement Masons	10.37	2.20
Hoisting & Port. Engineers		
Group 1 (low)	9.79	2.60
Group 19 (high)	11.69	2.60
Iron Workers	11.00	1.78
Laborers		
Group 1 (low)	8.39	2.70
Group 4 (high)	9.29	2.70
Boilermaker	11.575	2.295
Brickmasons	11.67	1.72
Drywall	10.65	1.93
Electrician	12.30	1.69
Painters	10.03	1.39
Plumbers & Steamfitters	13.23	2.38
Roofers	10.45	.75
Sheetmetal Workers	11.635	.96

Source: Oregon Bureau of Labor

[1] CCDEIA (1979) Curry County Factbook

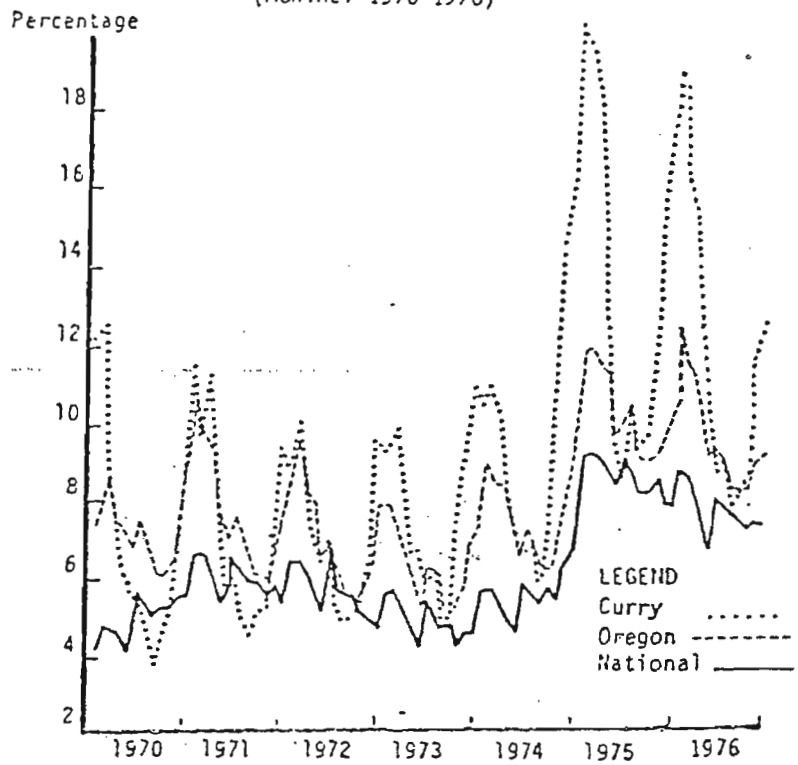
FIGURE 9.3 A
CURRY COUNTY 1979 EMPLOYMENT
(as a percentage of total employment)



* Includes self-employed, fishermen, agricultural workers.
Source: Prepared from data supplied by the Oregon State Employment Division.

FIGURE 9.3B

CURRY COUNTY
PERCENTAGE UNEMPLOYED
(MONTHLY 1970-1976)



Source: Prepared from Oregon State Employment Services Division data

TABLE 9.3G

MONTHLY UNEMPLOYMENT RATE IN DISTRICT COUNTIES, STATE AND NATION 1977-1979

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual Average
	State	8.3	7.8	7.4	7.1	6.6	6.4	6.3	6.1	5.8	5.8	6.8	7.6	6.8
	National	6.4	6.4	6.1	5.5	5.2	6.0	5.8	5.9	5.6	5.6	5.6	5.6	5.8
1979	Coos	8.7	8.9	8.2	8.7	7.6	6.9	7.5	8.5	8.5	8.9	9.9	10.0	8.2
	Curry	10.8	11.9	12.0	11.3	9.5	8.8	8.8	8.2	7.2	8.0	10.8	10.8	10.2
	Douglas	11.4	10.9	10.7	10.7	9.9	8.7	8.6	8.6	8.2	8.5	10.5	10.9	9.7
	State	7.6	7.3	6.7	6.3	5.8	5.7	5.6	5.2	5.2	5.2	6.0	6.0	6.0
	National	7.0	6.9	6.6	5.8	5.5	6.2	6.3	5.8	5.7	5.4	5.5	5.6	6.0
1978	Coos	9.0	9.2	8.4	7.3	6.2	6.4	5.8	6.0	6.5	6.7	8.0	7.8	7.3
	Curry	9.7	8.9	8.7	7.8	6.6	5.7	5.7	5.4	5.7	6.4	8.3	7.9	7.2
	Douglas	10.0	9.5	8.5	7.9	7.8	7.2	6.8	6.6	7.3	6.8	7.6	8.3	7.8
	State	9.7	9.5	9.0	8.0	7.4	7.0	6.7	6.5	6.0	5.9	6.3	6.8	7.3
	National	8.3	8.5	7.9	6.9	6.4	7.5	7.0	6.8	6.6	6.3	6.4	6.0	7.0
1977	Coos	10.0	10.2	9.9	10.6	9.6	7.5	6.8	7.5	7.2	7.7	8.9	8.1	8.7
	Curry	12.9	13.5	11.6	8.7	7.1	6.5	6.8	6.2	6.6	7.0	9.1	8.9	8.7
	Douglas	11.3	11.0	10.6	9.6	8.8	8.5	8.3	7.7	7.7	7.6	8.3	8.9	9.0

Source: State of Oregon Employment Division

Table 9.3 G shows the monthly unemployment rate for Curry County, adjacent counties, the state and nation for the years 1977-1979 which indicates that Curry County has unemployment rates which are similar to adjacent counties but higher than state or national levels. This table also shows that unemployment is generally higher during fall and winter months which is related to the seasonal nature of some economic sectors.

Finally, Table 9.3 H shows that unemployment rates of Curry County and adjacent counties during the first quarter of 1980. As can be seen the unemployment rate has taken a significant increase as the decline of the forest products industry responded to the slump in housing starts on a national basis.

TABLE 9.3 H

UNEMPLOYMENT RATE IN DISTRICT COUNTIES, FIRST FOUR MONTHS 1980

	January			February			March			April		
	Civilian Labor Force	Unemployed	Rate	Civilian Labor Force	Unemployed	Rate	Civilian Labor Force	Unemployed	Rate	Civilian Labor Force	Unemployed	Rate
Coos	26,720	2,570	9.6	26,750	2,490	9.3	26,830	2,510	9.4	26,380	3,200	12.1
Curry	6,580	790	12.0	6,400	890	13.9	6,460	690	10.7	5,980	940	15.7
Douglas	39,690	4,570	11.5	39,370	4,060	10.3	39,730	4,210	10.6	38,200	4,930	12.9
District	72,990	7,930	10.9	70,980	7,440	10.5	73,020	7,410	10.2	70,560	9,070	12.9

Source: State of Oregon Employment Division

Unemployment has traditionally been a problem in Curry County due to the seasonal and cyclical nature of major components of the economic structure (forest products industry, tourism, commercial fishing, etc.). This indicator of the county economy also reflects the lack of diversification of industry and marketing problems that are related to the resources and general location of the area.

9.3.4 Employment Trends

Employment projections for the major employment sectors have been prepared by the Bonneville Power Administration.[1] (See Table 9.3.I.) These projections are based on population projections from census data and economic considerations.

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[1] BPA (1979)

As can be seen from Table 9.3 I the projections indicate that overall employment will progressively increase over the period of the projection (to year 2000) but there will be changes in those sectors providing employment. For instance, agricultural, construction,

TABLE 9.3 I

CURRY COUNTY
EMPLOYMENT PROJECTIONS
1980-2000

	1980	1985	1990	1995	2000
Total Employment (Household)	6,500	7,400	7,875	8,425	8,925
Total Employment (Establishment)	5,900	6,600	6,875	7,275	7,625
Agriculture	275	275	250	250	225
Non-Agricultural Self-Employment	625	650	650	675	700
Total Non-Agricultural Employment	5,000	5,675	5,975	6,350	6,700
Mining	--	--	--	--	--
Construction	200	200	175	175	150
Manufacturing	1,400	1,425	1,325	1,275	1,225
Food and Kindred Products	*200*	*225*	*250*	*275*	*275*
Lumber and Wood Products	*1,150*	*1,125*	*1,000*	*925*	*875*
Paper and Allied Products	--	--	--	--	--
Primary Metals	--	--	--	--	--
Transportation Equipment	*25*	*25*	*25*	*25*	*25*
Other Manufacturing	*25*	*50*	*50*	*50*	*50*
Transportation and Public Utilities	175	200	200	200	225
Wholesale and Retail Trade	1,075	1,350	1,550	1,750	1,950
Finance, Insurance and Real Estate	200	250	275	300	300
Services	625	775	900	1,025	1,150
Government	1,325	1,475	1,550	1,625	1,700

Source: Bonneville Power Administration - Requirements Section
July 15, 1979

and lumber/wood products will decrease whereas non-agricultural self employment, wholesale/retail trade, finance, services and government are expected to increase. This projection is based upon the presumption that the forest industry will continue its decline over the next 20 years but that the general trade and service sector will expand and more than make up the projected losses of the forest industry. The expansion of the trade and service sector will probably be from the attraction of more diversified commercial and light industrial activities and from tourism.

These projections are reasonably uncertain due to the way they were developed and the data upon which they were based. However, until information from the 1980 census is available and compared with population projections and economic conditions in the county, the employment projections prepared by the BPA are consider-

ed as representing the best available information.[1]

9.4 COMMERCIAL AND INDUSTRIAL LANDS

The designation and use of commercial and industrial lands in the county is of prime importance to the economy of the county. A principal function of a comprehensive plan is to designate lands which are appropriate for commercial and industrial use. Curry County has designated lands within the county for rural commercial, commercial, and industrial use as part of its comprehensive plan. These lands are lands which are presently committed to such use and some vacant lands that were previously in commercial or industrial use or are needed for future development commercially or industrially.

9.4.1 Commercial Lands and Needs

Curry County has designated commercial land under three separate zoning designations which are defined as follows:

1) Rural Commercial (RC) is a commercial zone which is designated in areas which are located in a rural setting where there are existing commercial uses and areas where new commercial uses can be developed using individual wells and septic systems.
2) Light Commercial (C-1) is a commercial zone which is designated in areas where the commercial use is primarily quiet enclosed businesses that cater to residential needs of the surrounding area.
3) Heavy commercial (C-2) is a commercial zone which is designated in areas where more complete commercial facilities are needed which include service and storage facilities as well as light manufacturing activities.

Generally the rural commercial zone is applied to specific area in rural parts of the county which are in commercial use but necessarily have to rely upon rural facilities such as individual water wells and septic facilities. Most of these areas are located along U.S. 101 and are predominantly in use for tourist facilities such as shops, restaurants, motels, etc. The light and

[1] CCDEIA (1980)

heavy commercial zones are generally applied in community areas where there are established commercial centers with a variety of uses.

Curry County has zoned approximately 866 acres of the county for commercial use in the county outside city urban growth areas. Approximately 500 acres of this land is presently developed for commercial use and the remainder is vacant for future development. Table 9.4.A shows an analysis of the future commercial land needs of the county based upon the projected future population of the county. This table also indicates how these future needs will be provided for by lands under the jurisdiction of the county and similarly zoned lands within the incorporated cities. Table 9.4.B shows where these lands are located in the community areas and rural areas of the county.

9.4.2 Industrial Lands and Needs

Curry County has designated some lands in the county for industrial zoning. The industrial zone provides for those uses which are intensive manufacturing and processing uses which could be in conflict with residential or commercial uses.

Curry County has zoned approximately 361 acres of land for industrial use outside the urban growth areas of the cities. These sites are sites which have been in use for industrial purposes or are presently vacant former industrial sites. All such sites which are vacant are identified as potential future industrial sites.[1] Many of the vacant sites are former forest product industry millsites and are developed for such use with log ponds, improved access, water availability, and structural improvements. Curry County has designated these sites in its comprehensive plan to maintain their viability for future industrial use.

Approximately 200 acres of the land designated for industrial use in the county is presently developed with the remainder being vacant for future development. Table 9.4.A shows an analysis of future industrial land needs of the county based on projected future population of the county. This table also indicates how these future needs will be provided for by lands under jurisdiction of the county and similarly zoned lands within the incorporated cities. Table 9.4.B shows where these lands are located in the community areas and rural areas of the county.

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[1] CCDEIA (1979) Curry County Factbook.

TABLE 9.4.A

ANALYSIS OF COMMERCIAL AND INDUSTRIAL LAND NEEDS

I. COMMERCIAL LANDS

Existing Comm. Lands		1980 Population		Per Capita Ratio		2000 Population		Total Comm. Land Year 2000
871 acres	÷	17,000	=	0.05	X	33,000	=	1,650 acres

Existing Developed Commercial Lands		Designated Commercial Lands	
Curry County	514 acres	Curry County	866 acres
Brookings	103 acres	Brookings	315 acres
Gold Beach	199 acres	Gold Beach	253 acres
Port Orford	55 acres	Port Orford	185 acres
	871 acres		1619 acres

II. INDUSTRIAL LANDS

Existing Ind. Lands		1980 Population		Per Capita Ratio		2000 Population		Total Ind. Land Year 2000
345 acres	÷	17,000	=	0.02	x	33,000	=	660 acres

Existing Developed Commercial Lands		Designated Commercial Lands	
Curry County	218 acres	Curry County	361 acres
Brookings	113 acres	Brookings	223 acres
Gold Beach	14 acres	Gold Beach	86 acres
Port Orford	0 acres	Port Orford	20 acres
	345 acres		690 acres

Source: Curry County Comprehensive Plan Commercial and Industrial Lands Inventory; 1980 Federal Census Data; and Comprehensive Plans for the cities of Brookings, Gold Beach, and Port Orford.

TABLE 9.4.B

COMMERCIAL AND INDUSTRIAL LAND
OUTSIDE URBAN GROWTH AREAS

Area		Commercial Acres	Industrial Acres
I. Community Areas			
A. Langlois	Vacant	14	0
	Developed	55	23
		69	23
B. Ophir	Vacant	0	0
	Developed	2	0
		2	0
C. Nesika Beach	Vacant	30	0
	Developed	14	0
		44	0
D. Agness	Vacant	11.5	0
	Developed	31.5	0
		43.0	0
Total Community Areas		158	23
II. Rural Areas			
A. Committed Areas	Vacant	34	40
	Developed	117	157
		151	197
B. Rural Areas	Vacant	55	103
	Developed	294	38
		349	141
C. Rogue River Lodges	Vacant	-	-
	Developed	208	-
		208	-
Total Rural Areas		708	338
Total Community Areas		158	23
Grand Total		866	361

9.5 PLAN POLICIES REGARDING THE ECONOMY OF THE COUNTY

Curry County recognizes that the viability and future well being of the county is inseparably linked to its economy and improvement of conditions in the county will require expansion and development of all sectors of its local economy. The comprehensive plan for the county is an important factor in the improvement of the economy of the county be determining policies for future economic growth and also designating lands for commercial and industrial use.

Those general policies which Curry County adopts regarding the economy of the county are as follows:

1. Curry County recognizes that the forest products industry is the single most important sector if its present economic structure and will continue to be such in the future.
2. Curry County wishes to assist the forest industry in seeking stability in the timber supply of the region by encouraging timber production from all available resource lands public and private.
3. Curry County recognizes that the remaining significant sectors if its economy are resource related (agriculture, commercial fishing, and mineral industry) and seeks to support these industries in achieving future growth.
4. Curry County recognizes that tourism is an important part of its economy and seeks future development of this industry by attracting more destination tourists to the area and extending recreational opportunities.
5. Curry County recognizes that local commercial enterprise and industry should be diversified and seeks to attract new busines and industry to the county by providing attractive sites and incentives for relocation.
6. The Curry County comprehensive plan designates lands suitable for commercial and industrial use and provides zoning that is compatible for those uses.

In addition Curry County where consistent with goals and objectives of all elements contained in the comprehensive plan, recognizes the "Comprehensive Economic Development Strategy" as developed by the CCD Business Development Corporation as its guiding economic policy.

10. HOUSING

10.1 INTRODUCTION

Chapter 10 of the Curry County Comprehensive Plan provides information regarding housing in the county and establishes policies and implementation measures to aid the county in meeting the housing needs of its citizens for the next twenty years. This evaluation of housing in the county is also intended to meet the requirements of LCDC Goal 10 for acknowledgement of the Curry County Comprehensive Plan.

Goal 10 is intended "to provide for the housing needs of citizens of the state" by requiring Curry County to analyze and provide for the housing needs of its citizens. The goal further states that the county shall inventory "buildable lands for residential use" and the plan shall "encourage the availablity of adequate numbers of housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density."[1]

Curry County has inventoried its existing housing stock by type, condition, cost and availability. It has also inventoried buildable land, housing demand, and related economic requirements. This information was then utilized to establish plan policies to guide future decisions by the county regarding housing.

10.2 HOUSING SUPPLY

Most of the land area of Curry County is in forest and open space, with about 94 percent of the land occupied by federal and private lands. Existing concentrations of housing and population are found mainly along Highway 101 adjacent to the coast. For purposes of the housing inventory the county has been divided into the three areas shown in Figure 10.2 A. The southern area includes the largest incorporated city, Brookings, as well as the unincorporated community of Harbor, the Harbor Bench Farm District, and rural sections to the north and east. The central area includes the City of Gold Beach, together with unincorporated communities of Nesika Beach, Wedderburn and Hunter Creek plus adjoining

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[1] LCDC (1978)

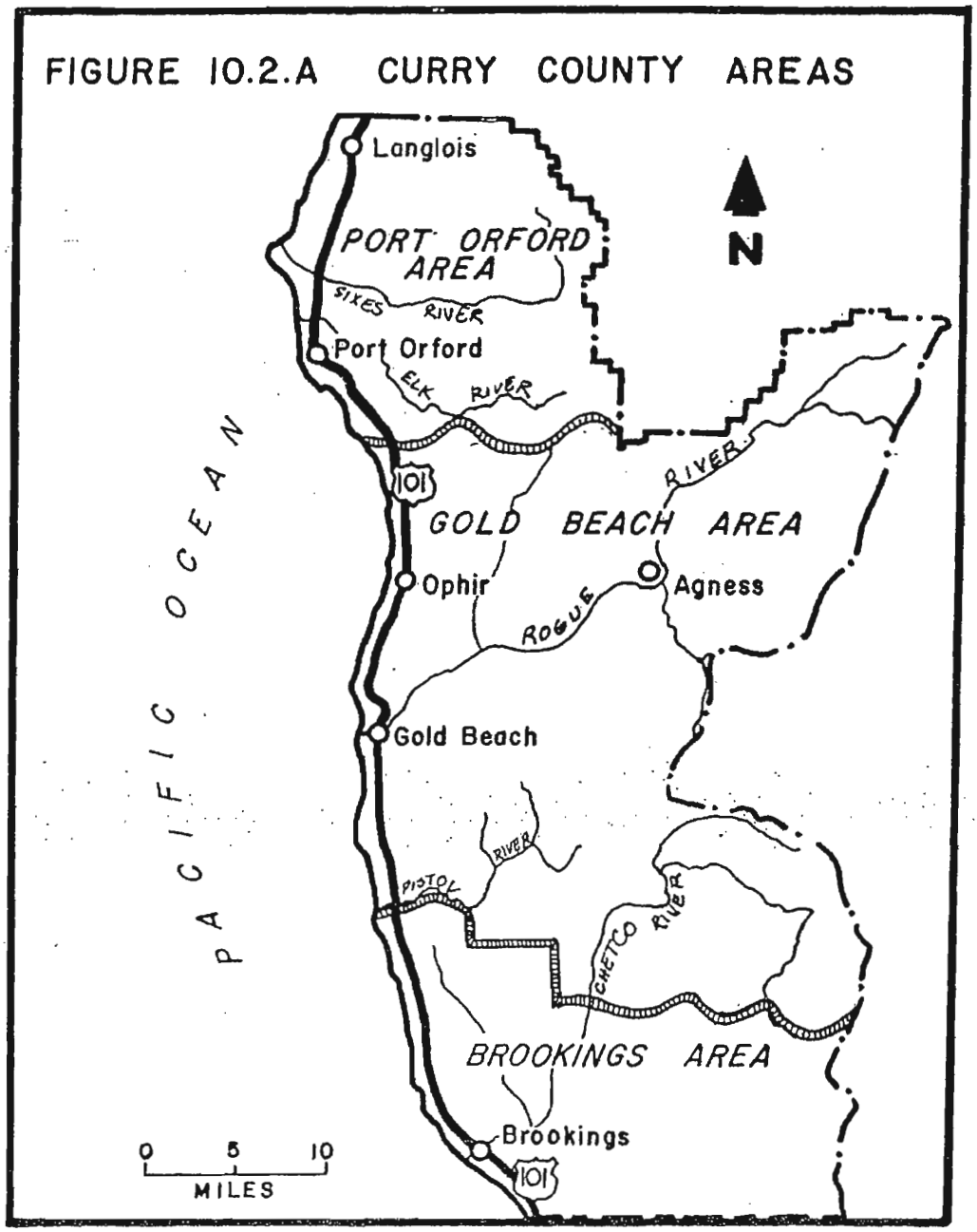
FIGURE 10.2.A CURRY COUNTY AREAS
Langlois
PORT ORFORD AREA
SIXES RIVER
Port Orford
ELK RIVER
N
PACIFIC OCEAN
101
RIVER
GOLD BEACH AREA
Ophir
Agness
ROGUE
Gold Beach
RIVER
PISTOL
CHETCO RIVER
BROOKINGS AREA
Brookings
101
0 5 10
MILES

rural sections.

10.2.1 Housing Types

The numbers and types of housing units in the three areas are listed in Table 10.2 A based upon data taken from the Curry County Assessor's Office.[1] Included are conventional houses, mobile homes (both real property and personal property), multi-family buildings, apartments, and the numbers of motels, courts and mobile home parks (it is assumed that there will be one housing unit for the manager in each such business). This table does not include the number of households living in house trailers, recreational vehicles and business buildings, nor the cases where more than one housing unit is located on one tax lot, since these data are not available in the assessor's records.

Recent building permits were reviewed to update the information in Table 10.2 A through March 1981. The building permits issued after about 1 October 1979 should indicate the approximate number of housing units that have been built after March 1980 or were under construction on 1 April 1981, if it is assumed that completion of a building requires about six months after receipt of a building permit. Table 10.2 B shows that building permits for 644 housing units and permits for demolition of 12 units were issued between 1 October 1979 and 31 March 1981 for a net increase of about 632 building units. Combining those units with those of Table 10.2 A indicates a total of about 7334 housing units in the county at the present time.

For comparison, preliminary results available from the U.S. Federal Census (April 1980) show an estimated county total of 7499 living units in Curry County at that time. Further information from that census will not be available until late in 1981. Concurrently, the new Rural Address System in Curry County shows about 4075 housing units in the areas outside the boundaries of the three principal cities and the communities of Nesika Beach, Wedderburn and Langlois.

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[1] Curry County Assessor's Office (1980)

TABLE 10.2 A

CURRENT HOUSING UNITS IN CURRY COUNTY

	Conventional Homes		Mobile Homes			Parks*	Multi-Family		Apartments		Motels & Courts	Total	
		% Owner occ.	Real Property	% Owner occ.	Persnl Prop.		Bldgs	Units	Bldgs	Units		Bldgs	Units
Brookings Area													
City of Brookings	918	66	13	15	2	24	55	121	11	163	5	1028	1246
Harbor Sewer Dist.	242	57	267	64	320	11	6	12	2	14	1	849	867
Harbor Bench	303	60	86	53	121	4	2	5	1	4		517	523
Other	469	53	396	33	214	4	3	4				1086	1087
Total	1932	64	762	45	657	43	66	142	14	181	6	3480	3723
Gold Beach Area													
City of Gold Beach	421	72	17	76	66	20	11	28	8	60	13	556	625
Nesika Beach	107	73	21	67	2	1	2					137	138
Wedderburn	89	78	0	0	8	1			2	16	2	102	116
Hunter Creek	82	73	9	78	29	4						124	124
Other*	576	57	116	73	175	5	3	6	1	4	2	878	
Total	1275	64	163	73	284	32	15	36	11	80	17	1797	1887
Port Orford Area													
City - Port Orford	343	56	5	80	12	7	3	5	4	20	5	379	397
Langlois	62	56	7	86	3	2						74	74
Other	496	52	70	71	51	3	1	1				621	621
Total	901	55	82	73	66	12	4	6	4	20	5	1074	1092
County Total	4108	63	1007	53	1007	87	85	184	29	281	28	6351	6702

TABLE 10.2 B

Housing Units

	Building Permits Oct.1979 through Mar.1981				Housing Unit Demolition Permits	
	Conventional Single Family Homes	Mobile Homes	Multi-Family Units	Total	Single Family Units	Net Inc. Housing Units
Brookings	51	6	53	110	3	107
Gold Beach	5	16	28	49	0	49
Port Orford	12	6	5	23	2	21
Rural County	147	315	0	462	7	457
Total	215	343	86	644	12	632

Source: Curry County Building Department (1981)

Mobile homes comprise a large part of the housing unit supply, about 31 percent for the county as a whole and about 43 percent of the housing units outside the city limits of the three cities. The highest concentration of mobile homes is in the Harbor Sanitary District, where they make up about 49 percent of the total housing units.

10.2.2 Tenure of Housing Units

Approximately 64 percent of the single family conventional homes in the county are occupied by owners (see Table 10.2 A). Generally, conventional home owner occupancy is more prevalent in Gold Beach and adjoining communities (72 of 78 percent) and also in the Brookings incorporated area (66 percent), but lower in rural areas.

Overall, about 53 percent of real property mobile homes are occupied by owners. Higher fractions are owner occupied in the Gold Beach (67 to 78 percent) and Port Orford (71 to 86 percent) areas, and lower fractions in the Brookings area (e.g. 33 percent in rural areas near Brookings).

There are about the same number of real property and personal property mobile homes in the county. County records do not include information on whether personal property mobile homes are occupied by owners or renters.

10.2.3 Condition of Housing Units

The County Assessor's data on home deterioration was used in determining the condition of single family housing units, both conventional structures and real property mobile homes. Houses were rated by their percent good and this percent was class as sub-standard (0-69 percent) and standard (70-100 percent). The county total is about 30 percent substandard, 69 percent standard and 1 percent unknown (see Table 10.2 C).

By areas, the percent substandard is greater in the north-Port Orford area at 48 percent, Gold Beach area at 30 percent and Brookings area at 23 percent. For the cities, Port Orford has 47 percent, Gold Beach 39 percent and Brookings 18 percent substandard. The specific area with the highest percentage of substandard units is Langlois with 92 percent. The higher percentage of substandard housing in the northern part of the county is due to the fact that much of the housing in this area is made up of old homes since the northern part of the county was initially settled over 100 years ago.

In 1972, substandard housing in the county was 42 percent of the toal housing units.[1] The decrease in the percent of substandard units from 1972 to 1980 probably was created by the addition of new housing, and not through rehabilation or replacement of substandard units (that is, 42 percent of 1972 housing units is approximately the same as 30 percent of 1980 housing units).

The large percentage of poor quality homes in the county presents problems in meeting housing needs. The substandard housing units do not qualify for mortgages from lending agencies, so that a large percentage of potential buyers are unable to purchase them unless loans can be arranged through the sellers. Also, homes that are in disrepair and of low quality construction are not eligible for home improvement loans and tend toward further deterioration. This situation lends to a continued loss of housing stock.

10.2.4 Cost of Housing Units.

County assessor's records were used to determine the prices from actual sales of single family homes. These sale prices reflect the meeting between the supply of properties offered for sale at different prices and the

[1] Coos Curry Council of Governments (1972)

TABLE 10.2 C

Condition of Single Family Homes

	0-69	70-100	Unknown	Sum
Brookings				
City	165 (17.9%)	774	9	918
Harbor S.D.	69 (28.5%)	171	2	242
Harbor Bench	69 (22.6%)	228	6	305
Other	132 (28.1%)	323	14	469
Total	435 (22.5%)	1466	31	1932
Gold Beach				
City	164 (39.0%)	316	0	421
Nesika Beach	49 (45.8%)	58	0	107
Wedderburn	5 (5.6%)	84	0	89
Hunter Creek	19 (23.2%)	62	1	82
Other	202 (35.1%)	369	6	576
Total	380 (29.8%)	888	7	1275
Port Orford				
City	161 (46.9%)	182	0	343
Langlois	57 (21.9%)	5	0	62
Other	213 (47.8%)	273	10	496
Total	431 (47.8%)	460	10	901
TOTAL	1246 (30.3%)	2814	48	4108

Source: Curry County Assessor's Office 1980

FIGURE 10.2 B
ACTUAL HOME SALE PRICES
(Land + Improvements)
Curry County

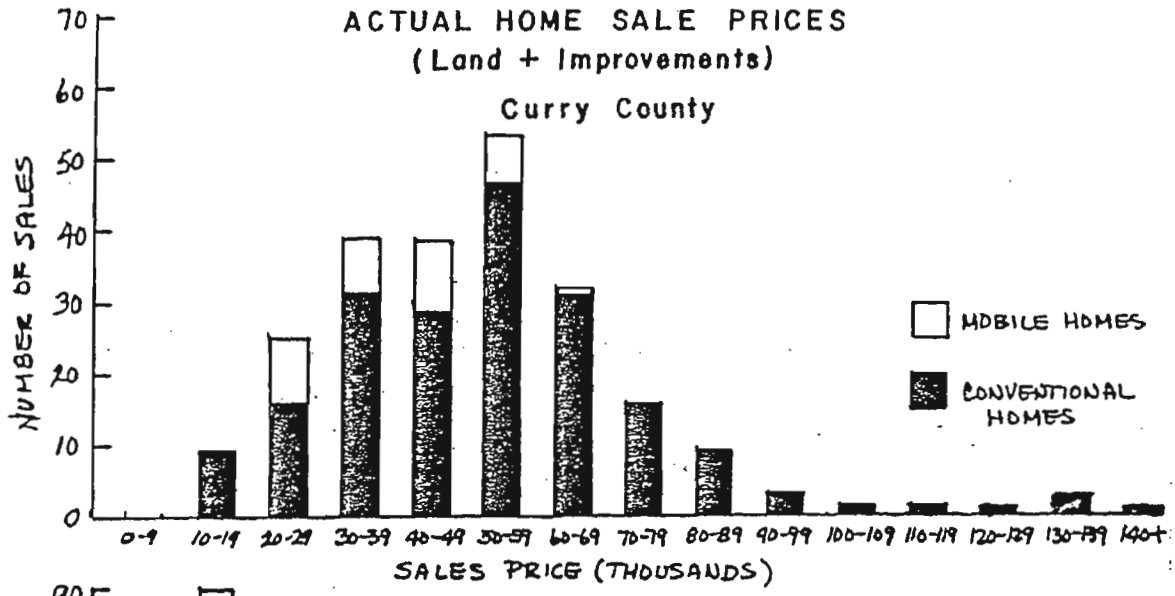


FIGURE 10.2 F
ACTUAL UNIMPROVED PROPERTY SALES
Curry County

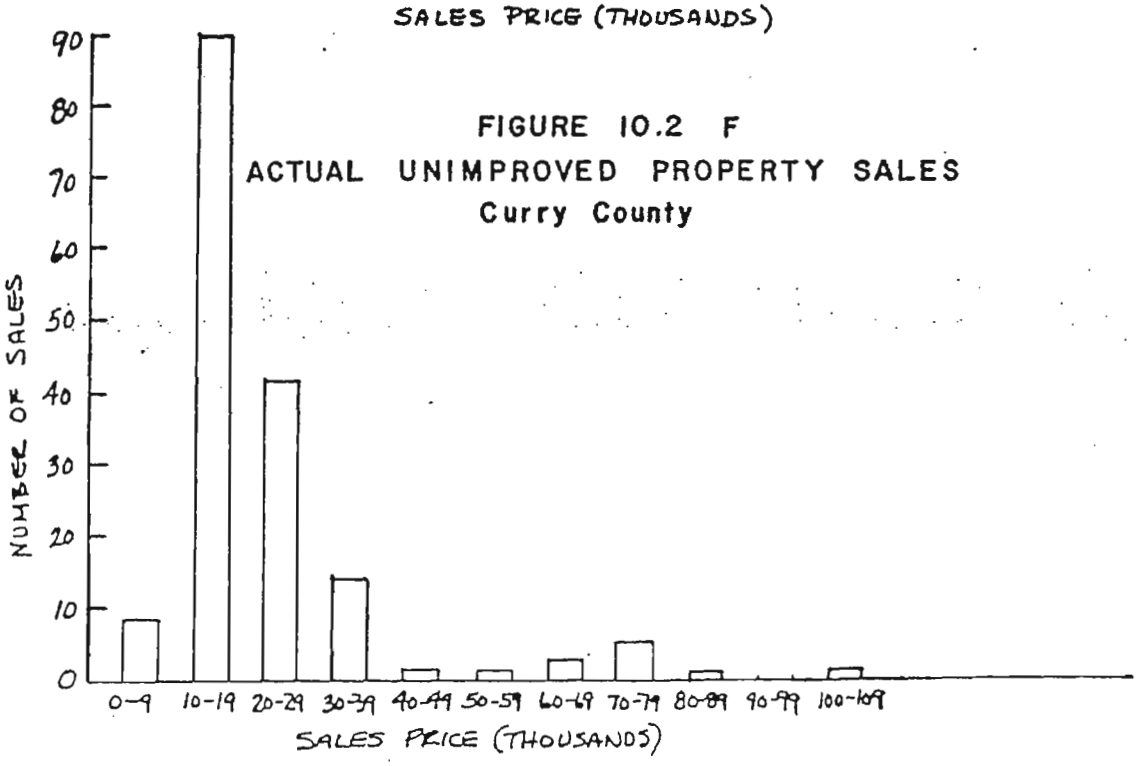


FIGURE 10.2 C
ACTUAL HOME SALE PRICES
(Land + Improvements)
Brookings Area

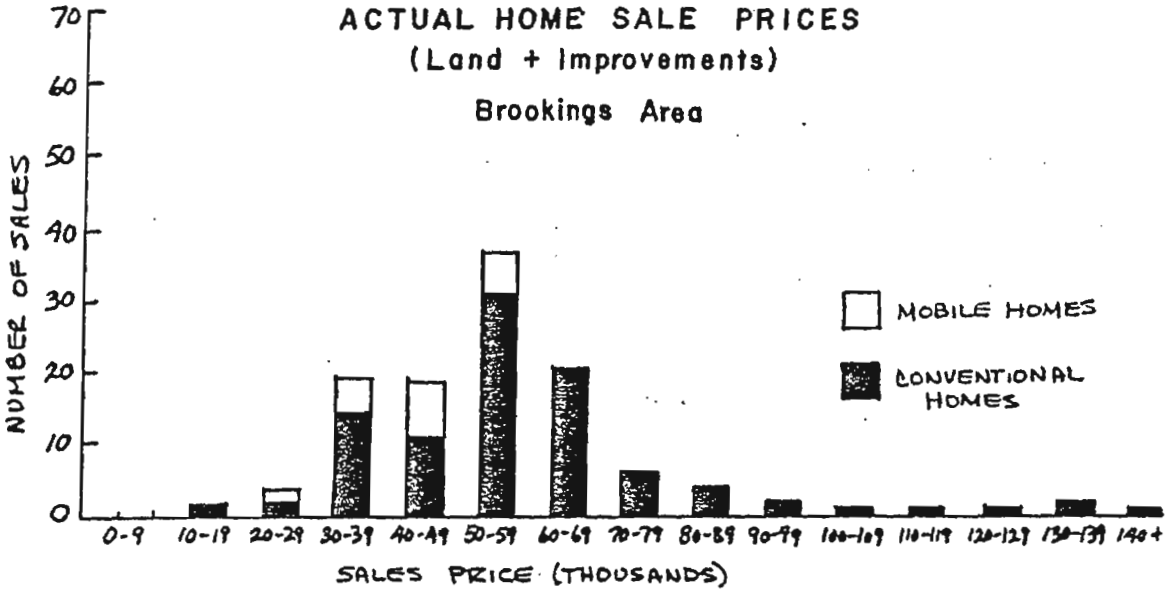


FIGURE 10.2 G
ACTUAL UNIMPROVED PROPERTY SALES
Brookings Area

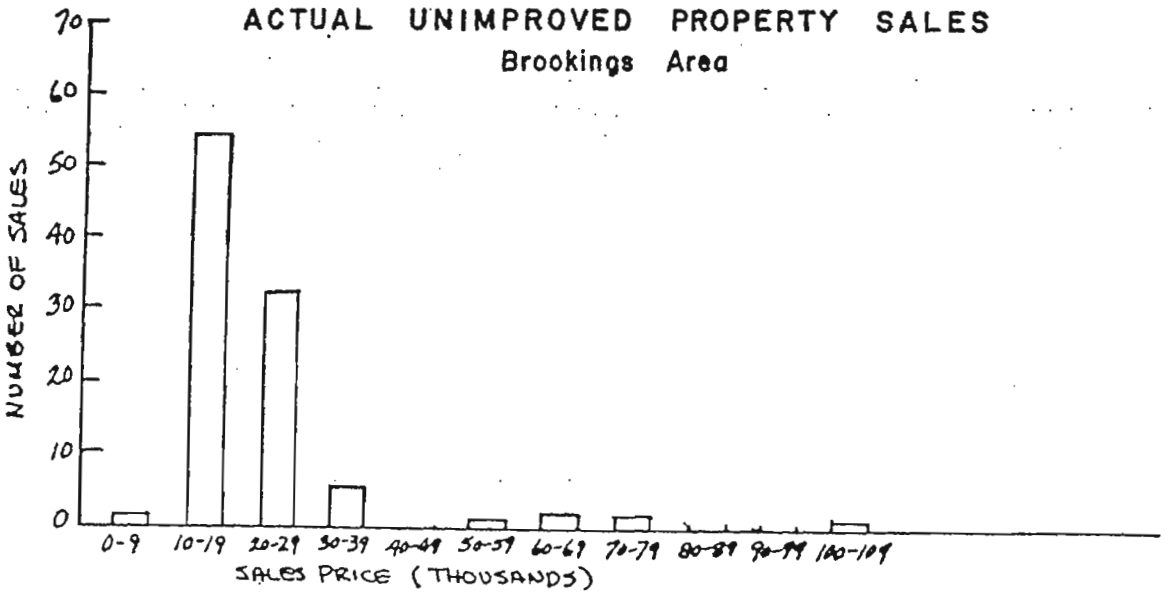


FIGURE 10.2 D
ACTUAL HOME SALE PRICES
(Land + Improvements)
Gold Beach Area

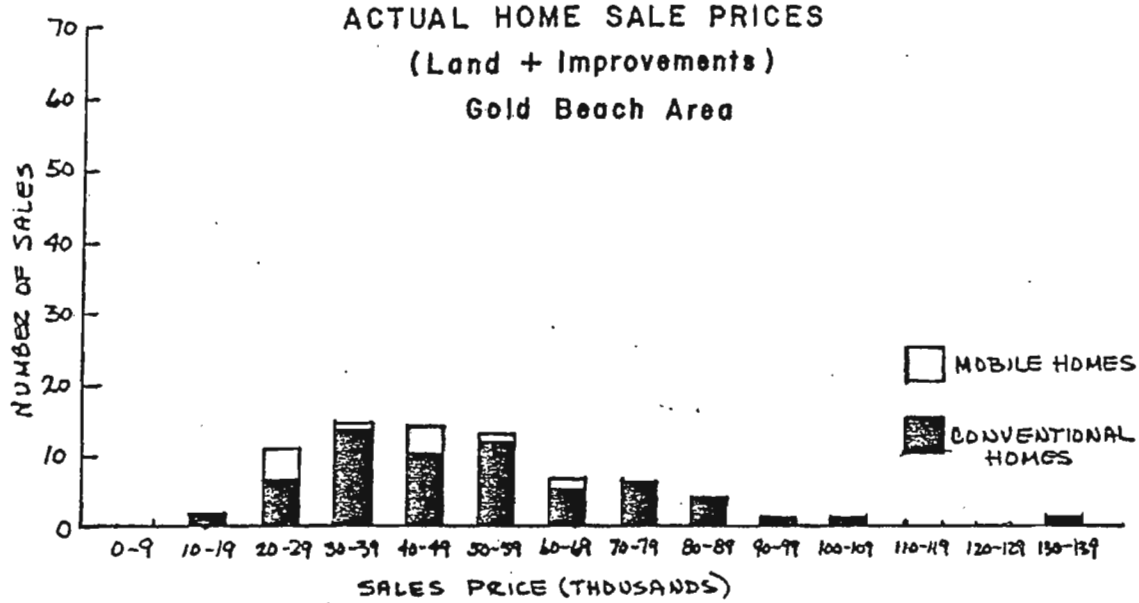


FIGURE 10.2 H
ACTUAL UNIMPROVED PROPERTY SALES
Gold Beach Area

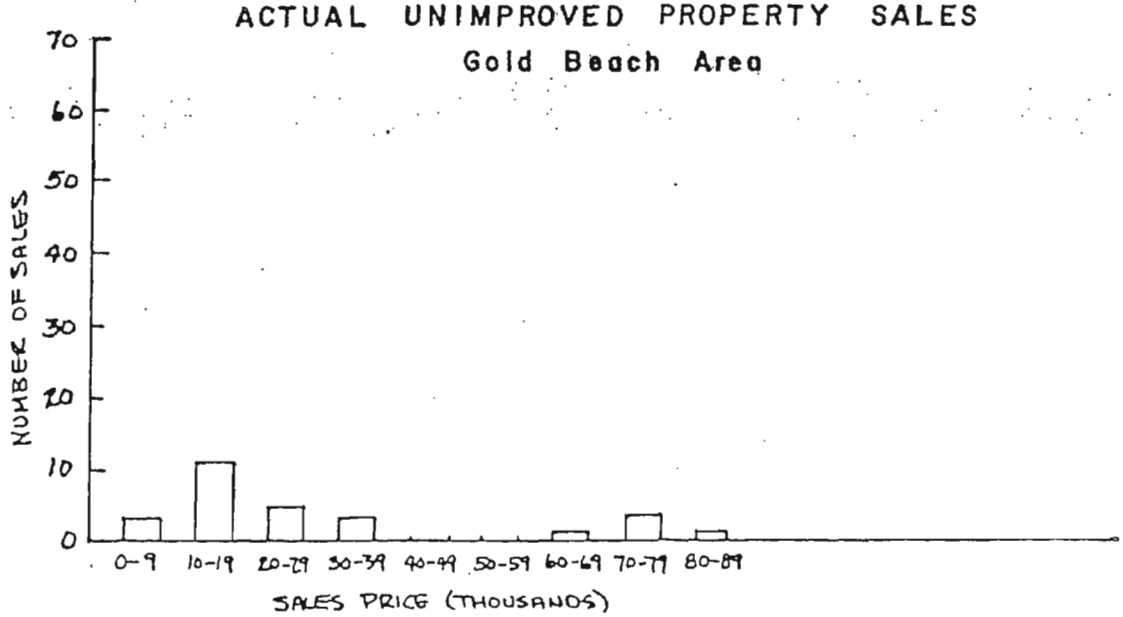


FIGURE 10.2 E

ACTUAL HOME SALE PRICES

(Land + Improvements)

Port Orford Area

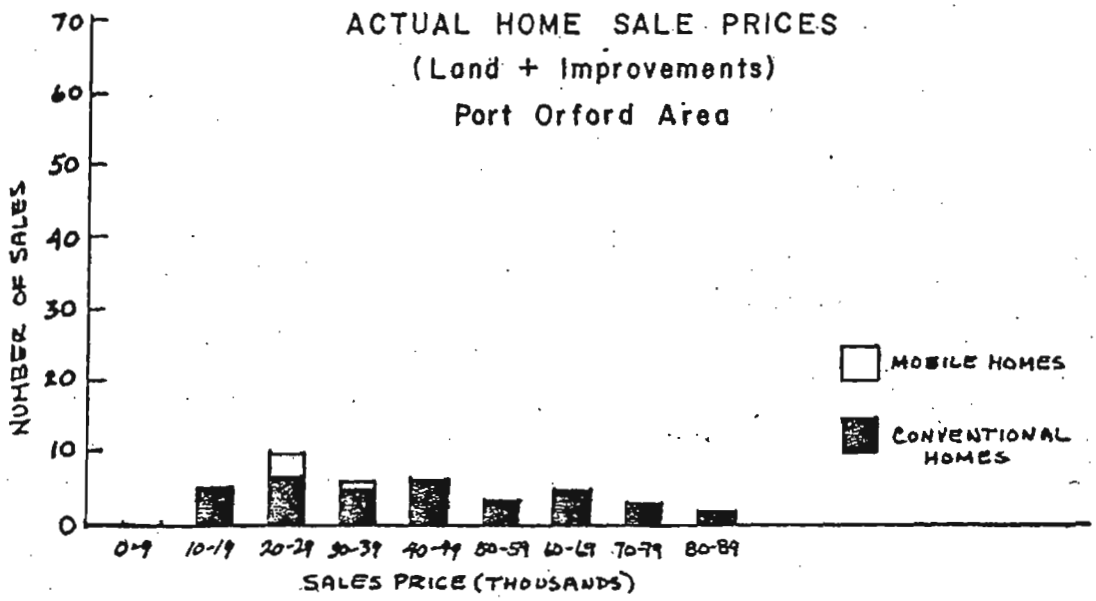
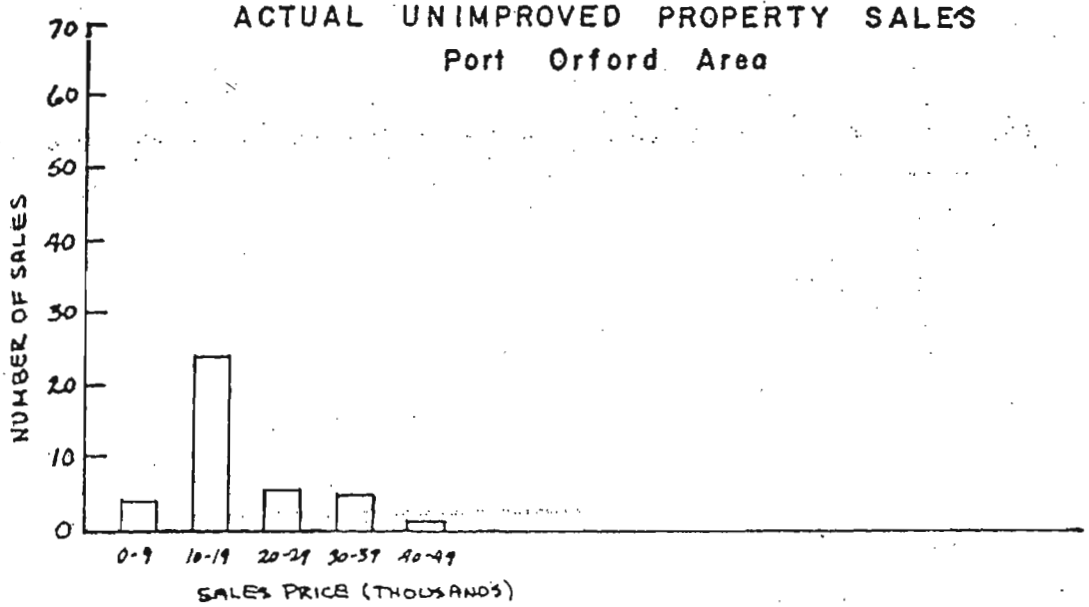


FIGURE 10.2 I

ACTUAL UNIMPROVED PROPERTY SALES

Port Orford Area



demand for prices which people were willing and able to pay. Sales of multi-family units were not included, since those units provide mainly rentals, and the purpose of this section is to explore the availability of living units to be purchased by people in the county.

The county assessor's records show that 200 single family conventional homes and 33 real property mobile homes were sold in the year between 1 September 1979 and 31 August 1980. Informal discussions with local real estate people indicate that home prices rose about 10 percent from then until April 1981 and that a very high fraction of sales (perhaps 90 to 95 percent) were made to out-of-state buyers.

For the entire county, the median price ranges (both land and improvements) for conventional home sales was $50,000. to $59,000. and for mobile homes $40,000 to $49,000. as shown in Figure 10.2 B. The numbers of sales of improved properties in the three areas of the county closely correspond to the population in those areas.

More than half of the sales of single-family improved properties were made in the Brookings area and median price ranges there were $50,000. to $59,000. for conventional homes and $40,000. to $49,000. for mobile homes (Figure 10.2 C). About 30 percent of the sales were in the Gold Beach area, with the median price ranges of $40,000.to $49,000. for conventional homes and about $40,000. for mobile homes (Figure 10.2D). The remaining 18 percent of sales were in the Port Orford area, at lower median price ranges of $40,000. to $49,000. for conventional homes and $20,000 to $29,000 for mobile homes (Figure 10.2.E).

The Farmers Home Authority administers a loan program for purchase of single family homes in Curry County. As of April, 1981, there were 169 loans outstanding, including 86 loans for which the government subsidized loan payments. Typically, the homes have three bedrooms and one bath, a floor area of about 1,000 to 1,100 square feet and an average cost of about $50,000. To qualify for loans, the applicant must have a good credit rating, be a renter, have been employed at a position for at least six months and have an adjusted gross income less than that from the formula (adjusted gross income + $16,000. - 5% -$300./child). If the adjusted gross income is less than $11,200., the government subsidizes the payment.

Classified advertisements from the three county weekly newspapers were reviewed over a five week period (in March and April, 1981) to investigate the current supply and price ranges for different types of single family homes available for purchase in the different areas of the county. Single family conventional homes, real property mobile homes and personal property mobile homes were included, but not multi-family building such as duplexes or apartment buildings. Actual prices as negotiated in the accomplishment of sales usually would be lower than the asking prices listed in the classified advertising. The prices of conventional homes and real property mobile homes include the costs of land parcels upon which the homes are located. The prices of personal property mobile homes include only the mobile homes.

Conventional homes are consistently more expensive than mobile homes, and real property mobile homes cost more than personal property mobile homes. Properties in the Brookings area usually are the most expensive, followed by those in the Gold Beach area and those in the Port Orford area having the lowest prices. The medians of advertised price ranges for conventional homes were $70,000. to $79,000. in Brookings; $60,000 to $69,000. in Gold Beach; and $40,000 to $59,000. in Port Orford; and for personal property mobile homes from $10,000. to $19,000. in Brookings, and less than $10,000. in the other areas.

10.2.5 Rents and Vacancy Rates

The rentals advertised in the three weekly newspapers were reviewed during a five week period in March and April, 1981, to investigate the prices of single family rental units in the different areas of the county. The approach was (a) to determine the median rental prices each week for each of the three types of family units - conventional homes, mobile homes and individual units within apartments, duplexes or condominiums; and (b) to compare the results from week to week to define typical median prices.

The Coos-Curry Housing Authority administers a HUD Section 8 rental assistance program for low income, elderly, disabled and handicapped people in Curry County. Normally, about 40 housing units are included. As of 1 April, 1981, 34 units were being supported, including 16 for elderly people and 10 for low-income families in the Brookings area; 5 for elderly in Gold Beach and 3 for elderly in the Port Orford area.

Under this program, the income of the recipient must be less than 80 percent of the median income for his family status (e.g. less than $11,900 for a couple, less than $14,900. for a family of four, etc.). The recipient then pays 25% of his adjusted gross income and HUD pays the remainder of the rent.

The classified advertisements concerning properties for sale and for rent were also used to obtain very rough estimates of the vacancy rates in the county. Properly, vacancy rates should be determined both for owner-occupied properties that are offered for sale and also for rental units in single-family homes, duplexes, apartments and other multiple-family units. However, only parts of the desired information were provided by the classified advertising.

Typically, about 113 single-family homes were advertised for sale each week (69 in Brookings, 30 in Gold Beach and 14 in Port Orford area), of which 65 were conventional homes (36 in Brookings, 19 in Gold Beach and 10 in Port Orford), and 15 were real property mobile homes (13 in Brookings, and 2 in Port Orford). These single family homes included both owner-occupied and rental properties, with no way to differentiate between them.

The typical numbers of advertised single family rental homes in the county include about 9 conventional homes (6 in the Brookings area, 2 in the Gold Beach area and one in the Port Orford area) and about 7 mobile homes (6 in the Brookings area and 1 in the Gold Beach area). Also several rental units were available in apartments, duplexes and condominiums but the numbers of units were not indicated.

With the information available from the classified advertising sample, vacancy rates can be estimated only for single-family residences. The 129 single-family homes advertised for sale or for rent comprised about 2.1 percent of the total single-family conventional and mobile homes in the county.

Of course, these do include some number of owner-occupied homes which actually are not vacant. Conversely, the classified advertisements do not include all units that are for sale or for rent. As a rough estimate, perhaps 2 percent of the single-family homes and mobile homes were vacant.

10.2.6 Vacant Lands

Vacant lands available for housing are located within city urban growth areas (UGB), within community areas, within rural committed areas and as farm-forest related dwellings on resource lands. Those lands located within city urban growth areas are evaluated for housing suitability by the comprehensive plan (Chapter 14), and vacant lands suitable for housing infill were evaluated in the Committed Lands Document. Additional housing is also provided in the form of farm or forest-related dwellings constructed on agricultural or forest lands.

An analysis was made of the sales of unimproved residential properties smaller than four acres, to examine the market price of building sites for single family residences. The properties whose highest and best use would be for mobile homes were taken to be the most likely sites for installation of mobile homes. About 168 sales were made in the period of the year ending 31 August 1981; of those, 160 lots were for conventional homes and 8 lots whose best use would be for mobile homes. The median price range in all areas of the county was $10,000. to $19,000 (Figure 10.2.F).

About 59 percent of the unimproved property sales were in the Brookings area, and of those, 91 were conventional home lots and 8 were for mobile homes (Figure 10.2 G). About 17 percent of the unimproved property sales (all for conventional homes) were in Gold Beach area (Figure 10.2 H) and about 24 percent (all for conventional homes) were in the Port Orford area (Figure 10.2 I).

10.3 HOUSING DEMAND

The demand for housing in Curry County is based on several factors; 1) general population growth, 2) changes in household structure, 3) economic factors, 4) household income and a desire to have a vacation home in the area. These factors interact with each other in a complex manner to result in a overall housing demand for the county. Each of these factors is discussed below in terms of its impact on housing demand.

10.3.1 Population Changes and Housing

The population of Curry County grew about 31 percent in the ten years from 1970 to 1980, from 13,006 in 1970 to 16,992 in 1980. The recent growth was a marked

change from the previous 0.7 percent decrease between 1960 and 1970. The recent increase was due mainly to immigration rather than natural growth. In 1980, about 55 percent of the population lived in the southern section of the county (with about 37 percent within the City of Brookings plus the Harbor unincorporated area), about 29 percent in the central area of the county comprising Gold Beach and surrounding areas, and about 16 percent in the Port Orford and the northern county.

Population growth has been most rapid in the south, with an increase of about 49 percent between 1970 and 1980. The growth during the same period was about 17 percent in the Gold Beach area and about 0.7 percent in the Port Orford area. However growth between 1970 and 1980 in the three principal cities was slower than in their surrounding areas; Brookings grew by about 24 percent compared to about 67 percent outside the city. Gold Beach decreased by about 3 percent compared to a growth of about 34 percent outside, and Port Orford increased by about 2 percent compared to a growth of about 6 percent outside.

A complete discussion of the population structure and projections of future population for the county is included in the urbanization element of the comprehensive plan (Chapter 14) with only pertinent facts summarized with respect to housing.

Population projections for the county give a total county population of about 25-35,000 by the year 2000, and a projection of 33,000 was selected for planning purposes.

The population age structure of the county is older than that of Oregon and the United States.[1] Curry County's median age was 35-39 compared to the Oregon and United States median age of 25-29. The highest median age (45-49) within the county was in the Harbor unincorporated area where more than 45 percent of the population is older than 50 years. The population projections and demographic profile of Curry County indicates that there has been a major influx of people of retirement or near retirement age living mainly in the southern third of the county that is likely to continue in the future. Much of this influx will use mobile homes as housing indicating the expanding need for low to moderate cost conventional housing.

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[1] PSU (1979)

10.3.2 Household Types

The size of the average household has decreased from 2.8 to about 2.4 persons since 1970 in accordance with a national trend. Important factors in Curry County have been an influx of retirement age population which forms one or two-person households and an increasing divorce rate which creates fragmented families. Although the number of housing units has increased at a greater rate (44 percent increase from 1970 to 1980) than the population (31 percent increase), nearly all of the difference can be accounted for by the decrease in household size.

The number of households in the different sections of the county in 1980 are taken to be the same as the numbers of housing units shown in Table 10.2 A, increased by the net numbers of building permits issued up to 1 April, 1980.

The approximate number of households in the different sections of the county in 1980 and the projected number in 2000 are shown in Table 10.3 A. The numbers of households in the year 2000 are assumed to increase from those in 1980 in direct proportion to the estimated population increase. As indicated, about 3,540 additional housing units will be required at that future date. Since about 30 percent of the housing in the county was in substandard condition in 1980, a large number of these homes will need to be replaced which will be in addition to the net increase of about 3,540 homes needed for increased population.

10.3.3 Economic Situation and Housing

The predominant sectors of employment in Curry County are lumber and wood products industry, trade, government, and a general group comprising self-employed, domestics, agriculture and commercial fishing. The greatest decrease in employment in the past two years has been in the lumber and wood products industry, which has been severely curtailed during 1980 and 1981 by the extremely high home mortgage and loan interest rates, that have been on the order of 15 to 20 percent and have greatly reduced new housing construction. Also, the industry is suffering long term job losses due to 1) depletion of lumber resource, and 2) federal government policy actions in managing the remaining resources and protecting the environment, and 3) productivity increases that displace labor.[1]

[1] CCDEIA (1980)

TABLE 10.3 A

Population and Housing Projections

	1980		2000		
	Population	Housing Units*	Population	Housing Units**	Housing Required
Brookings Division					
City of Brookings	3,384	1,363	4,600	1,853	490
Harbor Sewer Dist.	2,856	949	4,600	1,529	580
Harbor Bench	823	572	5,300	1,001	429
Other	2,205	1,190		2,083	893
	9,268	4,074	14,500	6,466	2,392
Gold Beach Division					
City of Gold Beach	1,515	681	1,750	787	106
Wedderburn	303	126	456	190	64
Nesika Beach	362	150	545	226	76
Hunter Creek	326	135	491	203	68
Agness	104	43	157	65	22
Other	2,391	922	3,601	1,389	467
	5,001	2,057	7,000	2,860	803
Port Orford Division					
City of Port Orford	1,061	432	1,200	489	57
Langlois	194	81	268	112	31
Unincorporated	1,468	677	2,032	937	260
	2,723	1,190	3,500	1,538	348
	16,992	7,321	25,000	10,864	3,543

*Add 632 building permits to 6,702 living units in County + $\frac{7334}{6702}$ = 1.09 times number of living units in any one area in Table 2.

** (Housing units in 1980 x $\left(\frac{\text{Population in 2000}}{\text{Population in 1980}}\right)$ = Housing Units in 2000

The results have been permanent closing of some mills, temporary closing of others, plus cut-backs and lay-offs of employees.

Other sectors of the county economic structure are also hindered by unemployment including the seafood industry, tourism, and government (see Section 9.3.3). In summarizing the unemployment rate, Curry County has been significantly worse than the statewide rate and the national rate with a recent high point being 19.4 percent in March, 1981. However more recently the unemployment rate has moderated with unemployment being about 12-18 percent which does not include commercial fishermen. The decline in the principal industries is causing increasing numbers of young and working age people to leave the county, which will lower the need for homes in the county.

10.3.4 Family Income and Housing

The family income of county residents is an important factor in determining housing demand in terms of type and price range. Incomes in Curry County are consistently lower than the statewide average as indicated in Table 10.3.B.

TABLE 10.3 B

Median Family Income

Year	Curry County	State of Oregon
1980	$17,709	$21,066.
1979	17,216.	19,479.
1978	16,297.	17,993

Source: State Employment Division - Research and Statistics Section (1980)

Curry County ranks 26th among the 36 counties in the state with respect to median family income.

In most cases more than one person per family is employed to produce a combined family income which is greater than the average wage per employee in the county. This increases the buying power of a family unit over that of an individual with respect to housing. However, even with two income family units it is very difficult for the average family to buy a house. As an example, the median price for a conventional house in the county was $50,000 to $59,000 in 1980 with a 10% increase since

then. Therefore, assuming a house price of $60,000. for the typical conventional home with a 20% down payment ($12,000) and a mortgage rate of 13 to 18%, the monthly payments will be between $591 and $783 (see Table 10.3C). Using the 1980 median family income of $17,709/yr. ($1476/mo.) the monthly house payments would use between 40 and 53% of the family income. For family financial stability house payments should not exceed 25 to 30% of the family monthly income.

TABLE 10.3 D

Approximate Monthly Costs for Home Purchase

Spring 1981
Selling Price - $60,000.
Down Payment (20%) - $12,000.
Thirty year mortgage, at either 18% or 13%

Approximate Monthly Costs	18%	13%
Mortgage Payments	$723.	$531.
Insurance	10.	10.
Maintenance	25.	25.
Property Taxes	25.	25.
	$783.	$591.

The level of household incomes in Curry County indicate that housing prices, especially for conventional homes, are beyond the means of most families so that much of the demand for home purchase in reduced due to inability to afford a house. This forces people into other forms of housing such as mobile homes and rental housing.

10.4 FUTURE HOUSING NEEDS

The future housing needs for the county will be determined by the numbers and characteristics of the different household types which will be present in the county during the next twenty years. Most projections show a continued gradual decline of the forest products industry in the county which provides much of the employment for working age people with families. This decline may be stabilized in the future or other industry such as nickel mining may locate in the county to sustain the labor force. However, if the steady decline of the working age population continues there will be a similar reduction in the demand for the typical three bedroom

house utilized by younger families.

The income of working families will probably remain low compared to other areas in the state, which will create a demand for lower cost new housing, refurbishment of the comparatively large fraction of sub-standard present housing, and reasonable priced rentals. The new lower cost housing for sale could be provided by smaller conventional houses, mobile homes, and lower rentals. Rentals will probably be provided mainly by additional apartment houses, mobile homes and smaller conventional homes. The higher density type of residential use will probably become more common and in greater demand because of lower cost per unit for construction. Higher density residential uses such as apartment buildings and mobile home parks are also more likely to be located within cities or community centers where full services are available.

The future housing needs of the county are likely to be different than in the past due to the increasing numbers of retirees moving into the area who have special housing needs. People of retirement age are generally looking for low-cost housing of small size because the family unit is typically two people who live on a fixed income. These people will be in need of small conventional homes, mobile homes or apartments which are conveniently located and modestly priced. The county is also attractive to the more affluent retirees who prefer quality homes typically located on a larger homesite or a better grade condominium in a planned unit development. These people often are seasonal residents who maintain a summer home in the county and travel or live elsewhere during the winter months.

In summary it appears that the future housing needs of the county will require some housing of all types ranging from larger homes on acreage lots to low cost multifamily dwellings in cities. However, certain factors, such as family income, economic conditions, and household type are changing and indicate that most of the future housing will necessarily be smaller in size and low in cost. This is reflected by the fact that most of the county population cannot afford to buy the average priced houses on the market today and needs some form of affordable housing.

10.5 PLAN POLICIES FOR HOUSING

Curry County recognizes that adequate and affordable housing is essential to its citizens and seeks to

provide for these housing needs through its comprehensive plan. The comprehensive plan provides for housing needs by designating lands suitable for residential use in various density classifications, implementing housing construction through its ordinances, and developing plan policies by which future decisions will be made regarding housing.

Curry County has developed the following policies with regard to housing:

1. Curry County encourages the development of adequate housing for all of its citizens in terms of location, quality, and affordability.

2. Curry County recognizes the need for all forms of housing and has designated lands for residential use with conventional homes, mobile homes, multi-family dwellings, and mobile home parks.

3. Curry County recognizes the need for quality home construction and has adopted the Uniform Building and Plumbing Code to insure standard construction practices within the county.

4. Curry County supports public and private financial programs which help people afford adequate housing.

5. Curry County recognizes the housing needs of those people who desire to live in a planned community by providing a process by which planned unit developments can be created with unit ownership and common areas.

6. Curry County will revise its comprehensive plan with regard to housing should any significant change take place in the existing population or housing demand which indicates an inadequate supply of housing units.

CHAPTER 11 - PUBLIC FACILITIES AND SERVICES

11.1 INTRODUCTION

An important aspect of the comprehensive plan for Curry County is the provision of public facilities and services in a timely and appropriate manner for urban and rural development. This chapter of the comprehensive plan describes those public services available in the county and the extent to which they can accommodate the future growth of the county.

Goal 11 has the primary intent "to plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development." The Goal further states that "urban and rural development shall be guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable, and rural areas to be served."

For purposes of comprehensive planning the following definitions apply:

Rural Facilities and Services - are facilities and services which the governing body determines to be suitable and appropriate solely for the needs of rural use.

Urban Facilities and Services - are key facilities which are at least the following: police protection, fire protection, sanitary, storm drainage facilities, planning, zoning, and subdivision control, health services, recreation facilities, energy and communication services, and community government services.

The provision of public facilities and service in the county under the comprehensive plan should be coordinated with other comprehensive plans for urban growth boundaries, urbanizable lands and to rural uses within the county. Also public facilities for rural areas should be provided at levels appropriate for rural use. Conversely public facilities proposed for urban and urbanizable lands should be appropriate for the development of those lands to urban densities. Finally the comprehensive plan should provide for a management program to assign respective implementation roles and responsibilities to those governmental bodies operating in the planning area.

11.2 TYPES OF PUBLIC FACILITIES

Curry County in its rural and urban areas has the following types of public facilities and services:

1. Public water systems - which serve incorporated cities, rural communities, and rural areas.

2. Public sewage disposal systems - which serve incorporated cities, and their urban growth areas.

3. Fire protection districts - which serve incorporated cities, rural communities and rural areas.

4. Law enforcement services - which serve the incorporated cities and the countywide area.

5. Public health services - which serve the incorporated cities and the countywide area.

6. Educational services - are provided throughout the county by several school didtricts.

7. Electrical energy and communication services - are provided throughout the populated areas of the county by rural electrification co-op and a private telephone corporation.

Other aspects of public facilities and services are discussed in other sections of the comprehensive plan such as transportation services (Chapter 12), recreation (Chapter 8), and solid waste (Chapter 6). This chapter will primarily focus on those public facilities which are essential to the present and future development of lands for residential and related uses (i.e. sewer, water and protective services).

11.3 PUBLIC WATER SYSTEMS

Public water in Curry County is provided through the city systems and the five rural water districts. Table 11.3A shows the statistical information regarding these water systems. As can be seen from the above table the largest water systems in the county are those of the three cities. Two of the rural water districts are located within the urban growth areas of adjacent cities (Hunter Creek Water District and Harbor Water District) so that they could possibly become part of the Gold Beach and Brookings municipal systems. The remaining rural water systems serve the rural communities of Langlois, Ophir and Nesika Beach.

A brief description of each of the public water systems in the county is given to inventory these facilities.

TABLE 11.3A

Water System Data, by District, 1978

	Source	Number of Users	Supply Capacity	Exc Supply over plan demand	Storage Reservoir
Langlois WD	Floras Creek	79	.35 mgd	None	100,000 gal.
City of Port Orford	Garrison Lake	559	1.35 mgd	None	217,000 gal.
Nesika Beach RWD	North Bank Rogue River	156	.1 mgd	excess of supply over plan demand	200,000 gal.
Ophir RWD	Nesika Beach RWD	65	-		200,000 gal.
City of Gold Beach/Wedbn	South Bank Rogue River	1085	.45 mgd winter .9 mgd summer	1.4 mgd	800,000 gal.
Hunter Crk. RWD	City of Gold Beach	96	1.39 mgd	-	250,000 gal.
Brookings	North Bank Chetco River	663	1.5 mgd	1 mgd	1,500,000 gal.
Harbor RWD	South Bank Chetco River	1015	.5 mgd peak demand of record		720,000 gal

11.3.1 City of Port Orford Water System

The City of Port Orford uses Garrison Lake as its principal water source with a small reservoir on the North Fork of Hubbard Creek (about 3/4 mile east of the city) as a secondary source. The water is pumped from the source, treated, and stored for distribution throughout the city. At present, the system is utilized well below capacity and the city is encouraging more additions to the system by development of vacant land within the city. The city comprehensive plan contains additional information regarding the city water system.[1]

11.3.2 City of Gold Beach Water System

The City of Gold Beach water system uses the Rogue River as its source with an intake well located about 3½ miles east of the city above the head of tide. Water is pumped to storage tanks in the city for distribution both within the city and surrounding areas. Water is provided to the neighboring Wedderburn area and Hunter Creek Water

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1 City of Port Orford (1980)

Districts on a contractual basis. Both of these areas are included within the City of Gold Beach UGB and will probably become part of the municipal system in the future.

The Gold Beach system requires upgrading of storage capacity, larger transmission lines and pumps in order to accomodate summer and industrial demand. Other problems with the system are the lack of water storage in the Wedderburn area. Wedderburn presently receives its water from a pipe line over the Rogue River Bridge and if the line should break the entire community is without water. Fire protection under such circumstances would be only by hauling water with tanker trucks. The City of Gold Beach comprehensive plan has a more complete discussion of this system.[1]

11.3.3 City of Brookings Water System

The City of Brookings water system uses the Chetco River as its source from a well located about two miles east of the city limits above the head of tide. The Ferry Creek Reservoir was the former source of water but has been discontinued, however, it could be a future alternate source (See Water Resources Inventory Map). Water is pumped from the source, treated, stored and distributed within the city and adjacent areas.

Brookings water system has adequate capacity through the planning period. The basic problems faced by the city are replacement of old lines and protecting the intake from upriver pollution. The Ferry Creek water supply has a high turbidity problem but, during peak demand or malfunction in the primary system, can be used to supplement or replace the primary system. The long term growth of Brookings may require upstream impoundments to supplement the Chetco River during low flows. A more complete discussion of the City of Brookings water system is provided in the City of Brookings Comprehensive Plan.[2]

11.3.4 Langlois Water System

The Langlois Water District uses Floras Creek as its source of water near the southern boundary of the community. Water is pumped from the creek to a storage tank and then distributed through the community area. The system presently serves the community area of Langlois with a main line extended north about 3/4 mile from the commercial center to serve a few residences along U.S. 101.

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1 City of Gold Beach (1980)

2 City of Brookings (1981)

The district has adequate storage capacity through the planning period since the installation of a new storage tank, however, the intake system at Floras Creek was inadequate and, through a cooperative effort with Curry County, the district is upgrading the intake to reduce turbidity and increase intake capacity.

The district is planning to install a new package filtration system and replace old distribution pipes to further improve water quality. At present the water system is not at capacity and can accomodate additional service hookups. The community boundary has been determined to be the water district boundary because the district is committed to providing service within that area without extending lines into adjacent rural lands.

11.3.5 Nesika Beach-Ophir Water Systems

These rural water systems have the same source on the north bank of the Rogue River which is pumped approximately 3½ miles through a main line to the community of Nesika Beach. The Nesika Beach Water District then provides storage and distribution to the community. The Ophir Water District is a northerly extension of the Nesika Beach system along Ophir Road for a distance of about three miles to the community of Ophir. The Ophir district provides additional storage and distribution to the community area. Recent studies of the two districts show that they have adequate intake storage and distribution facilities for the planning period.

The Nesika Beach-Ophir Water Districts are committed to serving the community areas within their respective boundaries and will not be extending service lines beyond the community boundary. The only water service provided by these districts beyond the community boundary is individual service connections along the main line from the Rogue River.

11.3.6 Hunter Creek Water District

The Hunter Creek Water District has the City of Gold Beach Water System as its source and simply stores and distributes water to the community. The system has adequate storage and distribution lines, but is dependent upon the City for its source which in turn is related to the pumping capacity of the City System. Since the Hunter Creek Water System is totally dependent on the City of Gold Beach the entire community area has been included within the Gold Beach UGB. Therefore, this water system will probably be incorporated into the Gold Beach system as provided by the City of Gold Beach Comprehensive Plan.

11.3.7 Harbor Community Water System

The Harbor Rural Water District serves the unincorporated community of Harbor and areas extending down Oceanview Drive. This district has the Chetco River as its source of water from an intake approximately two miles up the river from U.S. 101 above the head of tide. The district provides storage and distribution to the community areas as well as adjacent rural areas.

The Harbor Water District has satisfactorily met the needs of a rapid increase in population. The District is presently upgrading the intake and has plans for increasing storage capacity as well as extending new transmission lines. These planned improvements will meet the demands of the planning period. The main problem with this district is the conflict between servicing areas where water is needed without putting increased pressure on the remaining agricultural land. This has been solved to a great extent by the City of Brookings including most of the Harbor Water District inside their urban growth boundary which indicates that the district is committing most of its capacity to that area. Service areas of the district lying outside the UGB will probably be limited to individual hookups along existing lines. A more complete discussion of the relationship of the Harbor Water District to the City of Brookings is found in the City of Brookings Comprehensive Plan.

11.4 SEWAGE TREATMENT

The treatment of sewage effluent by a central processing facility is a necessary public facility in order to have full urbanization of the land. In the absence of a sewage treatment facility, development is dependent on some form of individual treatment such as a septic system which requires a relatively large lot size to accomodate the system. Thus the availability of public sewage treatment services is an important factor in separating rural lands from urbanizable areas.

Public sewage treatment in Curry County is limited to the three incorporated cities and areas immediately adjacent to them. Administratively these services are provided through the three city systems and three separate sanitary districts. The three sanitary districts are located within the urban growth boundaries of Brookings and Gold Beach. Table 11.4.A summarizes important facts regarding each of these systems which related to planning; however, for a detailed discussion of the systems the comprehensive plans for Port Orford, Gold Beach and Brookings should be consulted.

The Cities of Port Orford, Gold Beach and Brookings do not extend municipal sewer lines beyond their corporate limits so that an area must annex prior to receiving such service. Sewer service has been available in two areas of Curry County (the Wedderburn area and in the Harbor area) from special districts. The districts in the Wedderburn area have developed a collector system and utilize a sewage lagoon for treatment. The Harbor District simply pipes their effluent over to the City of Brookings for processing. These sanitary districts are so interrelated to the city systems that eventually they will become part of the city systems as growth of the cities expands into the urban growth areas. A full discussion of the timing and conditions for the linking of these facilities is found in the urbanization elements of the City of Gold Beach and City of Brookings Comprehensive Plan.

TABLE 11.4.A

SANITATION FACILITIES

	Type of Treatment Plant	Excess Capacity	Service Area	Design Population
Brookings (Regional Plant)	Primary, secondary trickling system	2.5 mgd	Brookings	7,855
Gold Beach (Regional Plant)	Activated sludge, continuous mix	.5 mgd	Gold Beach	3,800
Harbor	Uses Brookings treatment facilities		Area south of Brookings	---
Port Orford	extended aeration, secondary with polishing ponds	---	Port Orford	1,250
Wedderburn	lagoon	0	Area north of Rogue River mouth near Gold Beach	
Knoxtown	lagoon	---	---	---

Source: Curry County Area Development Factbook

11.5 RURAL SEWAGE DISPOSAL

Most of Curry County is dependent upon individual sewage disposal utilizing a system approved for such use by the Department of Environmental Quality (DEQ). The most commonly used system is a variation of the typical septic subsurface disposal system. Such systems work almost

universally in the county although specific sites are found where they cannot be sited due to topographic, soil or groundwater constraints. Oregon now allows certain alternate disposal systems to be used in areas where the standard septic system cannot be sited. This allows for some degree of flexibility in rural areas except that most alternate systems are considerably more expensive than the standard system. The county issues feasibility reports on the suitability of land for septic disposal and permits for the installation of such systems through the County Department of Environmental Sanitation.

11.6 OTHER UTILITIES

Electrical power is provided to most areas of the county by two utility systems; the City of Bandon and the Coos-Curry Electric Coop Inc. The City of Bandon only serves a small area of the county in the vicinity of Langlois where they have a single transmission line along U.S. Highway 101. The Coos-Curry Electric Coop. was organized in 1938 and serves part of Coos County and virtually all of Curry County. Power is purchased from Bonneville Power Administration as a preference customer. The Coop has installed transmission and distribution lines throughout the coastal area of the county to link the population centers and serve the rural areas. Table 11.6.A summarizes the operating statistics of the Coos-Curry Coop. for the county.

TABLE 11.6.A

OPERATING STATISTICS

Coos-Curry Electric Co-op.

	1975	1974
Miles of Line - Distribution	1,103	1,091
Miles of Line - Transmission	58	58
Average no. Billed Consumers	8,841	8,510
Average KWH/Cons. per year - Res.	17,119	16,395
Operating Revenue per mile	2,845	2,429
Operating Expense per mile	1,978	1,546
Consumers per mile	8.0	7.8
Depr. value electric plant	$9,340,611	$8,586,081
Total principal paid to REA	4,711,610	4,375,714

Source: CCDEIA Curry County Factbook

Curry County is served by General Telephone of the Northwest, Inc. as the prime facility for general communication. They have exchanges located in Langlois, Port Orford, Gold Beach and Brookings with service to all developed areas of the county. Other communication services include the operation of TV translators and Cable TV networks in the incorporated cities and the operation of a local radio station in the Brookings area.

11.7 FIRE PROTECTION

Fire protection in Curry County is provided by either city fire department or Rural Fire Protection Districts (RFPD). Table 11.7.A shows statistical information regarding county fire departments.

TABLE 11.7.A

City	Insurance Classification	Fire Dist. Assessment (Per $1,000 true cash Value of the District)	Personnel: Paid/ Volunteer	Total Alarms Responded to in 1975
Brookings	7	$0.77	1/29	86
Gold Beach	5	0.17	-/35	15
Port Orford	7	0.16	-/27	12

District	Insurance Classification	Fire Dist. Assessment (Per $1,000 true cash Value of the District)	Personnel: Paid/ Volunteer	Total Alarms Responded to in 1975
Dawson Tract RFPD	8	(See Brookings)		
Gold Beach-Wedderburn RFPD	5	2.50	(See Gold Beach)	
Harbor RFPD	6	.52	-/20	11
Ophir RFPD	U N R E P O R T E D			
Langlois RFPD	9	1.02	-/11	3
Port Orford RFPD	9		(see Port Orford)	
Agness RFPD	U N R E P O R T E D			

Source: Annual Statistical Report for 1975, Oregon State Fire Marshall

Insurance classifications represent a measure on a scale-of-ten of the level of protection in an area. Criteria include such factors as availability of fire hydrants and distance from fire stations. An entirely unprotected area is rated 10 and would have maximum insurance premiums on a given building, whereas, the same building in a more protected area would cost less to insure.

Large areas of the county are without rural fire protection districts, leaving structures unprotected. Brush and forest fire suppression in these areas is handled by the U.S. Forest Service; State of Oregon, Department of Forestry and Coos Forest Protective Association.

11.8 POLICE PROTECTION

Police protection in Curry County is provided by the Curry County Sheriff's Department and the Oregon State Police. The Curry County Sheriff's Department deploys deputies to all coastal parts of the county on a regular shift basis. In the southern part of the county, patrol cars are dispatched by radio from Gold Beach from the substation located in Harbor. Patrols are dispatched from the Sheriff's Office in Gold Beach for the central part of the county including the Agness area. Police protection by the Sheriff's Department in the northern part of the county is provided by four full time deputies stationed in the area. Sheriff's deputies patrol the county in two shifts between the hours of 8:00 a.m. to 3:00 a.m., however, resident deputies in various parts of the county are on 24 hour emergency call. The cities of Gold Beach and Brookings provide their own police protection, but the City of Port Orford contracts to the Curry County Sheriff's Department for the services of three deputies.

The Oregon State Police have a permanent office in Gold Beach and dispatches patrol cars to the coastal area of the county between 7:00 a.m. and 11:00 p.m., also units from the Coos Bay office patrol in the northern part of the county due to overlapping coverage by the two offices. The state police also provide officers to enforce state game laws in the county.

11.9 EDUCATION

Curry County is served by seven school districts which provide education to all populated areas of the county for grades 1-12. Table 11.9.A describes each district with regard to school facilities, numbers of students and teachers, and budgets. Students are transported to schools by an extensive system of school bus routes that traverse most county roads. In addition to the public school systems, there is one private school in the Brookings area which is operated by the Seventh Day Adventist Church. Curry County also has an

Educational Service District which provides specialized services to all of the school districts of the county.

TABLE 11.9.A

CURRY COUNTY SCHOOL DISTRICTS

CURRY District		# of Schools Primary/ Secondary	# of Students	1976-77 Total Budget	1976-77 Total Levy	Per Pupil Current Expenditures	# of Teachers	Average Teacher Salary
2J	Port Orford/Langlois	2/1	593	$1,331,420	932,341	$1,918	34	$12,149
3	Gold Beach Elementary	2/-	558	989,166	482,407	1,632	26	14,051
4	Agness	1/-	17	34,693	25,277	1,950	1	9,775
12	Ophir	1/-	98	218,269	143,528	1,959	7	10,953
16	Pistol River	1/-	21	103,480	83,404	2,955	2	11,000
17	Brookings-Harbor	2/1	1,536	2,574,410	1,571,214	1,443	71	12,384
23	Upper Chetco Elementary	1/-	33	127,109	89,802	1,991	3	12,791
UH1	Gold Beach Union High	-/1	348	931,341	572,360	2,038	18	14,805

Source: CCDEIA Curry County

Presently, all school systems in the County are under capacity and some districts are in fact suffering from declining enrollments to the point of having to combine grades and reduce sports programs. This reduction in student population probably reflects the economic situation in the county with declining employment and relocation of working-age people to areas with more employment opportunity.

11.10 RURAL AND URBAN LEVEL SERVICES

As noted earlier, Goal 11 points to the need for distinguishing between the types and levels of facilities and services that are urban in nature and those services which are exclusively rural. This distinction is important since needs for urban and rural areas are different and should be planned to allow the appropriate level of growth to occur efficiently.

Most of Curry County only requires rural services levels because of the low density of housing and the predominance of resource lands. Rural service levels are generally considered to be the provision of protective services (police and fire), electrical power, communication services and education.

Urban level services are generally determined to be all of those services found in rural areas and also the provision of public water and sewage disposal. The availability of public or community water to an area allows the development of the land to a higher density because it eliminates the necessity for a well, spring or other natural source of water. If public sewage disposal is also available to an area in combination with a public or community water source then the need for an area to accommodate the septic disposal system and appropriate setback distances is eliminated and development to urban density is possible. The Curry County Comprehensive Plan recognizes these public facility service levels by identifying the various areas where differing levels of such services exist and designating land uses appropriate to those levels. The comprehensive plan recognizes the following public facility service areas in the county.

1) Rural Service areas - basic protective services, energy and communication services and education available, water and sewage disposal on individual basis.

2) Rural Community services areas - all services that exist in rural areas and also a public water system together with a commercial center (store, post office, church, etc.).

3) Urban service areas - all services that exist in the above service areas and also public sewage disposal . These areas are located within the urban growth areas of the incorporated cities.

Plan designations and zoning have been applied to lands within the county that are appropriate to the identified service levels. The county has developed several rural residential zones which are applied to lands that have only rural services. These zones have minimum lot sizes which are appropriate for the provision of water and disposal of sewage on individual lots. The following land use zones are applied to rural lands:

1) Rural-Residential (5 acre minimum) -used where lands are presently parcelized at that size and water availability is uncertain.

2) Rural-Residential (2.5 ac. min.) - used where lands are presently parcelized at that size and water availability is known to some extent.

3) Rural-Residential (1 ac. min.) - used where lands are highly parcelized and public or community water is available or approved individual wells exist on each lot proposed in a division of land.

In areas where public water systems have been organized into administrative districts with definite boundaries the comprehensive plan has recognized the area as a rural community. The definition of a community area in the comprehensive plan provides some basis for the water district to make its plans for future development of its system in terms of the needs of the rural community. Rural communities generally have plan designations and zones which are appropriate to the existing land use and include rural residential uses (Rural Residential, 1 ac. min,), commercial uses, and industrial uses.

Those areas that are served by both public water and sewer have urban level services and are deemed suitable for urbanization. The only areas within county jurisdiction that fit this service level are at Wedderburn and Harbor where both rural water and sanitary services are combined. These areas are proposed for urbanization by virtue of being included within the urban growth areas of incorporated cities.

The Curry County Comprehensive Plan has identified several public facility service levels within urban growth boundaries of incorporated cities to insure that these areas are included in the plans of the adjacent city and reach full urbanization during the planning period. Other areas of lower public facility service level have been identified as rural communities. These areas have been given specific boundaries and appropriate plan designation for development at density levels suitable for the carrying capacity of their system. Finally all other lands in the county have only rural services and are designated as rural lands by plan designation and zoning.

11.11 PLAN POLICIES REGARDING PUBLIC FACILITIES

The provision of public facilities and services at adequate levels to support the density of development proposed in all areas of the county is an important aspect of the comprehensive plan. Curry County recognizes several levels of public facility service in the county and has determined plan designations that are appropriate to these levels of service. Curry County has also developed the following plan policies with regard to public facilities for implementation of the plan

1. Curry County recognizes three levels of public facilities and services existing in the county:

   a) rural services;
   b) rural community services;
   c) urban services;

   and has defined these levels as part of the comprehensive plan.

2. Urban service levels located within county jurisdiction are planned to be included within the urban growth boundaries of cities so that these facilities can be further developed in coordination with the adjacent cities.

3. Rural community services are located within unincorporated community centers which have organized water districts, fire protection; and have been defined by a community boundary that separates the higher service level from the adjacent rural lands.

4. Rural lands are all other lands which are dependent upon individual sources of water and sewage disposal and have a limited level of other public facilities and services.

5. The comprehensive plan effectively separates urban service levels and rural service levels with urban growth boundaries and rural community boundaries.

6. The comprehensive plan designates uses appropriate to each of these service levels through the zoning and subdivision ordinances which determine land use and minimum lot size.

7. Curry County encourages the development of adequate public facilities and services to the benefit of its citizens where appropriate and economically feasible.

8. Curry County recognizes the need for adequate public facility levels in the rural community areas it has recognized and has materially aided many of these communities in developing these services.

9. Curry County recognizes the rural areas of the county as being a rural service area and does not encourage the provision of additional public services into these areas in order to preserve their rural character.

12 TRANSPORTATION

12.1 INTRODUCTION

The development of safe, convenient and economical transportation is essential to the comprehensive plan for Curry County. This chapter of the comprehensive plan analyzes the type and condition of transportation facilities in the county and their future potential and problems during the planning period.

Goal 12 requires that the transportation plan for a county "shall 1) consider all modes of transportation; 2) be based upon an inventory of local, regional, and state transportation needs; 3) consider the differences in social consequences that would result from utilizing differing combinations of transportation modes; 4) avoid principal reliance upon any one mode of transportation, 5) minimize adverse social, economic and environmental impacts and costs, 6) conserve energy, 7) meet the needs of the transportation disadvantaged by improving service, 8) facilitate the flow of goods and services to strengthen the local and regional economy and 9) conform with local and regional land use plan.[1]

Curry County has provided an inventory of its present transportation system as part of the Goal 12 requirement and has analyzed these systems with respect to the issues identified in the Goal.

12.2 STREETS AND ROADS

The present transportation system in Curry County is almost totally dominated by automotive transportation over streets and roads. There are no railroads, regular air or sea shipping modes available within the county so that all transportation basically centers on automobile transportation and truck shipping.

The most important transportation link in the county is Highway U.S. 101 which transects the county from north to south along the coast. Other streets in the county can be divided into four broad functional classifications, local streets, collector streets, arterial streets and arterial highways.

Any system of classification has gray areas between classes. Design flexibility is particularly necessary to meet the needs of the users and also to provide for safe

[1] LCDC (1978)

and convenient traffic flows. Both physical and economic conditions determine the characteristics of any road, thus a great deal of overlap in function and design exists among the various street functions. The basic classifications and their uses in ascending intensities are as follows:

Local Streets - Local streets have as their primary purpose that of providing access to properties abutting the public right-of-way. The movement of traffic and the use of the road easement for location of utilities are secondary functions. Ordinarily, local streets account for 50% to 80% of the total road mileage of a developed area. This amount is considerably lower than average for the county due to large areas of undeveloped land and many uninventoried private roads.

Collector Streets - These carry traffic from local streets to arterial streets. These streets also provide access to abutting properties; however this function sometimes tends to be secondary in nature. Collector streets serve the internal traffic movement within an area of the county, such as a subdivision, and connect such an area with the arterial street system. Collectors do not handle long through trips and are of necessity not continuous for any great length.

Arterial Streets - This class of streets brings traffic to and from the highway and handles movements of traffic between major land uses or through the community. Arterials interconnect principal traffic generators within the county such as the central business district with the schools and major residential areas.

Arterial Highways - These roads provide rapid movement of traffic from one city to another. They make use of center medians and pavement markings to accomplish and land separation and serve large volumes of traffic.

12.2.1 Inventory of County Roads

Table 12.2A summarizes the miles of road in different areas of the county by road class.

Appendix 12-I is an inentory of all publicly maintained roads in Curry County with their physical description.

TABLE 12.2A

Area	Local	Collector	Arterial Streets	Arterial Highways	Total Road Mileage	% of Total
Harbor-Winchuck	4.96	2.04	18.62	5.0	30.62	8.3
Brookings-Chetco	10.06	29.88	7.70	11.2	58.84	16.0
Pistol River	1.40	8.8	16.61	10.8	37.40	10.2
Gold Beach	22.90	46.7	7.70	21.0	98.30	26.8
Agness	18.70	.0	20.00	.0	38.70	10.5
Port Orford-Langlois	25.80	8.2	47.30	22.3	103.60	28.2
Curry County Total	83.86	95.62	117.93	70.3	367.46	100.0
% of total	22.8	26.0	32.1	19.1	100.0	-

Source: Curry County Road Department

Highway 101 is the only arterial highway in the county which links all of the subareas of the county with the exception of Agness. Agness is reached by a county and U.S. Forest Service road from Gold Beach which is not classified as an arterial highway.

The Harbor-Winchuck area generally contains an adequate road system in terms of location, mileage, and surfacing for the travel-oriented categories of arterial highway and arterial streets. However, with increasing use, existing congestion and access oriented problems can be expected to escalate along U.S. 101 as the population increases in the area.

Arterial roads can also be expected to encounter an escalation of access and congestion problems, but to a lesser degree and primarily in the heavy use areas of the port and shopping center. The anticipated widening and resurfacing of lower Harbor Road will greatly facilitate use of that arterial in particular. While Ocean View Drive is adequate at present traffic levels and for the planning period, the width of the paving extends nearly to the right-of-way limits along much of its length, which will make widening and improvements more difficult when it becomes necessary.

The primary deficiency in streets is at present in the area of land access. Development of the existing local street and collector system has arisen primarily from the need to provide access to individual lots so that many of the local

streets serve a maximum number of access points. The overriding need is for additional local streets to accommodate the demand for access to individual lots. The planning of a local street system to fill in undeveloped areas must be flexible enough to facilitate development through the subdivision process, while at the same time fulfilling the overall transportation needs of the area.

The Brookings-Chetco area generally contains an adequate road system. Basic maintenance, primarily in the form of resurfacing and repair work, is needed for many roadways presently in poor-fair condition. Improvements to U.S. 101 in the form of passing lanes would enhance traffic flow during periods of peak use, especially in the summer time. New residential developments provide right-of-way of adequate width and surfacing to meet the increased demands expected in the future through the county subdivision process.

The Pistol River area has an adequate road system with respect to location of roadways and distribution of population. U.S. 101 provides access to the neighboring cities of Gold Beach and Brookings. Major intersections on the arterial highway are with the Pistol River Loop Road (County Road # 693) on the north and south side of Pistol River. The Pistol River Loop Road also provides access to Carpenterville Road which is an arterial road paralleling U.S. Highway 101 south to Brookings. North Bank Pistol River Road (County Road #690) and South Bank Pistol River Road (County Road #695) are main collector roads which intersect the Pistol River Loop Road. The collector roads along Pistol River provide access to areas inland from the coast.

Forest Service and BLM roads provide access to the forest from Gardiner Ridge Road and other roads along the Chetco River. The Oregon State Highway Division has also identified several sites within this area for removal and processing of highway construction material. These are: Myers Creek Quarry, and Henry Shale Pit located where the Old Coast Highway and U.S. 101 intersect at Myers Creek; and the Pistol River Bar located along the North Bank Pistol River Road.

The Gold Beach area has a generally adequate road system with respect to location and condition of most classes of roadway. It can be expected that there will be a further increase in traffic along arterial highways and arterial streets as tourism develops and local growth continues. U.S. 101 is the only arterial highway with major intersections located at Old Coastal Highway 101 just south of Nesika Beach and at the North Bank Rogue River Road and Jerry's

Flat Road at each end of the Rogue River Bridge. The Jerry's Flat Road intersection contains sharp, blind corners and is unsafe and should be improved as traffic increases. Changes in the traffic patterns will probably be related to the growth of the City of Gold Beach and its surrounding area.

Outside the City of Gold Beach the development of the local street system has been through the county subdivision process utilizing the county road standards. The best development of collector streets is to the north of the Rogue River where segments of the Old Coastal Highway have been maintained for local travel between community centers such as Wedderburn, Nesika Beach and Ophir. As development continues north from Gold Beach, local streets can be added to the existing collector streets to provide a more complete road system. However, some sections of the old highway, while paved, are too narrow and winding to be used as a major neighborhood collector. Widening must be done when use levels require it.

The Agness area is served by a road system that primarily consists of Forest Service roads with a few short lengths of road that are maintained by the county. Most of these roads are not improved to the extent that they could carry heavy traffic loads. The principal access road to Agness is the Gold Beach-Agness Road (F.S. 333) which is maintained as a two-lane asphalt surfaced road. Other roads are principally single-lane gravel roads that provide access to the forest areas for timber production and recreational purposes.

The Gold Beach-Agness Road (F.S. 333) is the only arterial road providing access from the coast. The principal local roads are the Bear Camp Road, (F.S. 3400), Lobster Creek Road (F.S. 343), Wildhorse Road (F.S. 368), Agness-Illahe Road (Co. 375), and Oak Flat Road (Co.,450). These roads provide access to various parts of the area from the Gold Beach-Agness Road.

Since most of the land in the Agness area is under public ownership, extensive private development requiring a network of local roads is unlikely. Most of the future commercial and residential development in the area will probably occur near Agness and Illahe which are served by surfaced roads. The improvement of other roads will probably be related to the development of recreational sites in the Siskiyou National Forest and the demand placed on those sites.

Access to Agness is also possible by boat utilizing the Rogue and Illinois Rivers. Historically, this area was only accessible by boat or by trails following the river bank. This mode of transportation is still used for recreational purposes. River float trips originate upstream usually from points in Josephine County and pass through the portion of these river drainages that is accessible by road. River access is also possible by going upstream from the mouth using jet boats which are able to traverse relatively shallow rapids.

The Port Orford-Langlois area generally contains an adequate road system. Since great increases in local traffic are not expected, the system should continue to be adequate for some years yet. Improvements to U.S. 101 in the form of passing lanes would enhance traffic flow during periods of peak use in the summer time. Basic maintenance and resurfacing will also be needed for many roadways indicated as being presently in fair to poor condition.

12.2.2 Road Use and Traffic

Road use in Curry County is best reflected by the periodic traffic count data at various sites in the county. Traffic count data obtained from the Oregon State Highway Division shows an average overall increase in traffic on U.S. 101 of 38.5% countywide as shown on Table 12.2B.

Traffic counts along U.S. 101 during this same period are indicated on Tables 12.2B, C and Appendix 12-II Average figures shown are somewhat misleading. Traffic flows during the winter months are normally lower than average during the summer tourist season. This heavy use of U.S. 101 by many slow moving recreational vehicles presents passing hazards. As traffic hazards increase, widening of drivable surface and use of passing lanes would be desirable.

The traffic count data also indicate that between 87-88% of all vehicles using U.S. 101 are light vehicles (passenger cars, and light pickup trucks).

12.3 MASS TRANSIT

Curry County, due to its small population, geographic isolation from major population centers, topography, and economy does not lend itself to the development of mass transit services. The county and its incorporated cities have no railroad service, taxi services, or commercial airline service in the past nor do any appear

TABLE 12.2B

Historical Traffic Data
U.S. 101 near Pedrioli Drive

Year	Average Daily Traffic
1967	2,954
1968	3,227
1969	3,241
1970	3,416
1971	3,745
1972	3,814
1973	4,015
1974	4,035
1975	4,290
1976	4,546

Source: OSHD

TABLE 12.2C

Average Daily Traffic by Months - 1976
U.S. 101 near Pedrioli Drive

	Average Weekday		Average Daily	
Month	Volume	Percent of ADT	Volume	Percent of ADT
January	3,267	72	3,240	71
February	3,309	73	3,350	74
March	3,624	80	3,656	80
April	3,819	84	3,850	85
May	4,382	96	4,482	99
June	5,149	113	5,139	113
July	6,259	137	6.285	138
August	6,624	146	6,534	144
September	5,442	120	5,542	122
October	4,683	103	4,609	101
November	4,122	91	4,041	89
December	3,999	88	4,546	84

ADT = Average Daily Traffic

Source: OSHD

possible in the forseeable future. Railroad lines or services have never been extended into Curry County as a commercial carrier. A company railroad existed in the Brookings area for the transportation of logs from the forest to a mill site but the facility was removed after the bridge across the Chetco River burned.

Various small commercial airlines have attempted to provide regularly scheduled service to the county but found that it was not economically feasible. Problems with commercial airline service are related to the limited capabilities of the county airports, the adverse weather conditions in winter, and the lack of a reasonable market for such services. The county is served by an air ambulance service and air charter services.

Taxi services have been started in the incorporated cities in the past but did not succeed due to low ridership and long travel distances between points.

12.3.1 Intercity Bus Service

The only mass transit service that serves Curry County on a regular basis for travel to and from the county is commercial bus service. Greyhound Coporation handles 74% of all inter-city bus travel in the state and is the only inter-city bus system operating regular routes in Curry County.[1] Passengers may board at scheduled stops or at any point along the county route by flagging down the bus. Stops are scheduled at Langlois, Port Orford, Gold Beach and Brookings. In addition, the communities of Sixes, Ophir, Wedderburn, and Pistol River are on U.S. 101 and can be served on a need basis by flagging the bus.

Present Greyhound schedules have three buses north and south on a daily basis with final destinations in Portland and San Francisco.

The cost per mile to the passenger ranges from $0.06 to $0.068 whereas, total operating costs for automobiles range from 14 to 22¢ per mile. It is obvious that in order to compete in terms of cost a car traveling between cities must carry three or more passengers; yet the average number of passengers per car traveling Oregon Highways was 2.1 in 1977. Failure to take into account the true operating cost of an automobile is certainly a factor in the general preference for that mode of transportation, but inconvenient bus schedules and the absence of mass transportation systems within county cities contribute to the problem.

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[1] CCCOG (1978)

Commercial bus schedules are oriented towards the long haul and not specifically designed for the convenience of people traveling short, round trips between adjacent communities. For the most part, few buses are scheduled to and from communities with arrival and departure times occuring at convenient hours. Therefore, one day trips for shopping or business may not be possible without a long wait.

Greyhound bus service provides transportation service which is excellent for achieving efficient, low cost service for long haul purposes. However, the service is not a solution for short trip patrons conducting business between towns on the South Coast. No self-supporting alternative for the general public has yet been identified that could fill that need particularly in light of the negative impact such service could have on Greyhound's ability to provide service to the area.

12.3.2 Local Transportation for the Disadvantaged

Curry County is the only public transportation provider of local and inter-city services convenient for day trips. Curry County provides services which include door-to-door services furnished in response to advance telephone reservations. A combination of scheduled trips and periods of demand responsive dial-a-ride transportation is available from dispatch centers located in the Port Orford Senior Center, the Gold Beach Senior Center and the Chetco Senior Center in Brookings. These services are provided generally within three miles of the dispatch centers; however, service to rural areas within a 14 mile radius of each dispatch center is available according to a published schedule on a weekly basis. Also trips between cities for obtaining medical services are available on a scheduled basis. These services are provided free to Senior Citizens (age 60+) and handicapped; however, standard fees are charged to the general public who need transportation with priority services given to handicapped and seniors. The majority of the transportation disadvantaged reside in the Brookings-Harbor area where approximately 60% of the seniors live. Their primary need is for local trips on a routine basis using low cost convenient transportation. A secondary need of these people is for transportation to rural areas and adjacent cities.

Curry County is providing a level of service that currently meets most demands. However, increasing use is expected with the growing population and awareness of the services. The county continually assesses the program and

seeks to provide a service to meet general and special transportation needs within its financial ability. A primary goal is to provide the service as efficiently as possible, utilizing volunteer and private community support wherever possible.

A second form of local transportation is provided by the Retired Senior Volunteer Program (RSVP) to senior citizens through the Senior Centers. The service consists of volunteer drivers transporting individuals on needed trips with expenses for transport reimbursed to the volunteer. The program is funded from public sources and user donations. This service augments the county program for specialized needs.

12.4 AIR TRANSPORTATION

Curry County has provisions for air transportation through three airports in the county. Table 12.4A describes the existing facilities at each airport.

Seven additional private landing strips are known in the county. These include grass or dirt strips at Agness, Big Bend, Crissey Field, Garvins, Half Moon and Paradise Bar and a gravel bar strip at the Champion Building Products millsite. None of these airstrips include support facilities or developed improvements.

Mercy Flights (Medford based non-profit organization) provides air ambulance service on a 24 hour basis to residents who are members of Mercy Flights.

12.4.1 Brookings Airport

This facility is owned by Curry County. The airport is 90 acres and located at 458 feet above mean sea level. Runway edge lights and end lights are provided on a 2600 foot long asphalt runway. Five hangar facilities hold nineteen aircraft with eleven tiedowns available adjacent to the runway. The airport utilizes Visual Flight Rule (VFR) approach and departure procedures. Other facilities include segmented circle and wind indicator, 10-inch rotation beacon, and a unicom (frequency 1228). Only visual flight rule approach and departure procedures apply.

A master plan was completed in 1980 for this facility in a cooperative effort of Curry County and the State of Oregon Aeronautics Division (OAD). The document entitled "Brookings State Airport Master Plan 1980-2000" was prepared by Wadell Engineering Corporation and does an effective job of inventory, projections and planning for the facility.[1]

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[1] Wadell Engineering (1980)

TABLE 12.4A

CURRY COUNTY PUBLIC AIR FACILITIES - 1977

	Gold Beach	Brookings	Cape Blanco
Ownership	Port of Gold Beach	County	State/County
Acreage	48	90	65
Runways	1	1	1
Surface	Asphalt	Asphalt	Asphalt
Lights	Low Intensity	Low Intensity	Low Intensity
Dimensions (ft)	3200 x 75	2600 x 50	5100 x
Strength (lbs.)			
single wheel	21000	8000	100000
FBO Services: fuel,	Charter, mechanical	NA	NA
Navigational Aids:	Wind Indicator	Wind Indicator	Wind Indicator
	Runway lights	Runway lights	Runway Lights
	Beacon	Beacon	Beacon
	NDB	-	-
	Vasi		
Aircraft based	14	15	2
Traffic Estimate-1977			
FAA-	13000	8500	NA
OAD-	15900	12300	2000
Traffic Estimates-1980:			
OAD-	18000	11600	2000
Traffic Estimates-1990:			
OAD-	22000	15800	3000
Meteorological Conditions:			
Wind Data Available-	yes, Day-time basis only	Not On regular basis	Not On regular basis
Ave. Annual Precip. (inches)	80.33	79.03	65.70
Ave. Temp. (°F)	53.6	53.1	49.8
Max. (July)	66.7	65.7	57.7
Min. (Jan.)	40.6	40.6	41.9

Abbreviations: FAA - Federal Aviation Administration
OAD - Oregon Aeronautics Division
NA - Not Available

Sources: "Oregon Aviation System Plan". OAD, 1974.
"Form 5010", FAA, 1977.
"Brookings County Airport-Tentative Development Plan" Jerry R. Swanson, 1974.

The plan forecasts a steady increase in numbers of based aircraft and hours of aircraft operations through the year 2000. The plan identifies basic improvements to the airport facility including lighting, navigation aids and support equipment. Of primary concern to the county in the comprehensive plan is the land use aspect in protecting the airport from conflicting uses and reserving sufficient land, where possible, to expand the airport parking, maintenance, hangar and aviation dependent commercial activities. Also of primary importance, is protecting the airport's existing runway and any appropriate land necessary to extend it to upgrade the classification of the airport and, therefore, expand the range of aircraft which can use the facility.

It is projected that the runway length will have to be lengthened south 300 feet to a total length of 2900 feet in order to qualify as a basic utility airfield which can accommodate 95% of all propeller aircraft parking and hangar facilities are recommended as well as widening the runway 10 feet to a total of 60 feet.

12.4.2 Gold Beach Airport

The Gold Beach Airport is owned and operated by the Port of Gold Beach and located on land immediately south of the mouth of the Rogue River. The Gold Beach Airport is the busiest airport in Curry County with nearly twice the number of landings as the Brookings Airport.[1] Gold Beach Airport is defined as a Basic Utility Airport which means it can accommodate about 95% of the general aviation propeller aircraft under 12,500 pounds. Specific planning issues regarding this airport are discussed in the City of Gold Beach Comprehensive Plan.

Curry County has land use administration over only portions of the airport impact area. The land use administration is handled through the urban growth area management agreement with the City of Gold Beach for those areas outside the city limits.

The Gold Beach Comprehensive Plan clearly recognizes the importance of the Gold Beach Airport and the need to protect it from encroachment by incompatible land uses. (See figure VI-3). Of particular importance is the fact that prevailing northwest winds in the summer often keep this airport fog free and open while other coastal airports are closed due to fog which is an important safety consideration for aircraft pilots in southwest coastal Oregon.

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[1] City of Gold Beach (1979)

The plan includes as one of its transportation goals the need "to encourage the expansion of air freight, air charter, and air services to the city." Another of the plan's transportation goals is "to consider for adoption as part of the city's comprehensive plan, an airport master plan."

To emphasize the importance of the airport to the community, the plan, in reference to the activities of the Port of Gold Beach, states that, "the city should encourage efforts to improve the airport and encourage only compatible uses adjacent to the airport. As the city continues to grow, a need for commercial air service could develop. At that time the adequacy of the airport facilities will partly determine if commercial air services can be brought to the area."

The goals and policies are tied to the actual situation of the land through the land use map of the comprehensive plan. The land use map, although subject to change as conditions may warrant, designates which uses should be permitted throughout the city. The airport is included within the "Public and Semi-Public" land use classification. The area around the airport is contained within the "Airport Activity classification, which allows only uses compatible with the airport. To permit the city "a degree of flexibility in dealing with its future," the Airport Activity "designation will allow the city to look at specific proposals with respect to compatibility with the airport and also the surrounding areas."

The area south of the Rogue River that is affected by the airport lies within the City of Gold Beach and is thus subject to the City of Gold Beach Zoning Ordinance. The area north of the Rogue River is under the jurisdiction of Curry County.

To provide the maximum degree of safety in the runway approach areas, it is necessary to insure that all obstructions, sources of glare and radio interference, and uses which attract birds be prohibited in the approach areas. A solution to this would be to adopt a height restriction or aviation hazards classification that could be applied as an overlay on top of the underlying zone. In this way, the underlying zone would control the basic land use while the overlay zone would specify the maximum height of all objects within a specified area.

12.4.3 Cape Blanco Airport

The Cape Blanco Airport was originally constructed by the military for coastal air defense. For this reason

the 5100 foot runway and taxi strips are capable of handling aircraft of greater size than any other field on the south coast.

The runway is in fact, 55 feet longer, than North Bend Municipal Airport's longest runway. The airport is located approximately six miles north of Port Orford, adjacent to Floras Lake State Park. The area is rural with ranching being the primary activity. After the military discontinued use of this field, the State of Oregon acquired it and now operate it as a Land Access Field for recreational flyers. Due to the caliber of the field construction, however, it is capable of reclassification to a Basic Utility or Basic Transport Airport. The airport features automatic runway lighting, a beacon, and wind indicator. The airport is the least used of the three Curry County airports with an average of only one take-off or landing per day. This due to its relative isolation from any population center and adverse winds or weather conditions during much of the year. The airport is now used as a pick-up facility for air taxi operators and air ambulance services as well as recreation flyers. However, the field has the capacity to service large propeller and executive jet traffic as well.

Cape Blanco airport has potential for expansion and even the possibility of becoming a regional airport. This is because the land around the airport is undeveloped and in an ideal situation where little or no conflicting uses exists. The airport has the advantage of having a good runway and vacant land with room for expansion in almost any direction. The principal disadvantage is in the isolation of the site from population centers requiring transportation of travelers to Coos County or Gold Beach/Brookings. Other problems could result from the competition of commercial and industrial uses for land which has agricultural capability or is in park use.

12.4.4 Airport Noise

The major potential conflict between continued airport use and off-airport development centers on noise impact. Human reaction to the intrusion of aviation noise is complex and subjective. Several indexes have been developed in an attempt to rate the annoyance associated with living and working with aviation noise. In general, these indicators attempt to measure quantitatively the acoustic energy of the sound and relate this to the subjective feelings of loudness, noisiness or annoyance. Though measures of the noise environment alone cannot provide an accurate prediction of the degree of annoyance that may be associated with a given level of noise intrusion.

The guidelines established by the Oregon Aeronautics Division for areas of "moderate noise impact" (55-65Ldn) state that most uses in such areas are compatible or conditionally compatible. They do, however, recommend that noise sensitive uses such as schools, hospitals, nursing homes, theaters, auditoriums and residential development should have noise insulation installed. However, outside of urban areas, lower background noise levels may result, and airport noise within the 55 Ldn noise contour may be perceived as a problem.

The Brookings and Cape Blanco Airports are located in areas where there are only low density residential uses so that noise is not a problem. However, the Gold Beach Airport is located in the center of town so that there is a greater possibility for conflict between airport noise and surrounding uses. These conflicts will have to be resolved as part of the City of Gold Beach Comprehensive Plan.

12.5 WATERBORNE TRANSPORTATION

Three ports which are located at Port Orford, Gold Beach, and Harbor exist within the county. The Port of Port Orford is a non-estuarine, natural harbor with one jetty and serves primarily commercial fishing craft. This port is discussed more fully in the Port Orford Comprehensive Plan. The Port of Gold Beach is an estuarine port located near the mouth of the Rogue River and serves not only commercial fishing craft, but sport and charter boats also. A more detailed discussion of this port is included in the Gold Beach Comprehensive Plan. The Curry County Comprehensive Plan will deal most specifically with the Port of Brookings which is located in the unincorporated town of Harbor.

The Port of Brookings serves not only lumber barge and commercial fishing traffic but also sport and charter vessels. Facilities include two boat basins, a barge ship and turning basin, two jetties, boat ramp, and a maintained entrance only during daylight hours and at high tide.

Small boat crossing on the Chetco River have increased from 2,835 in 1963 to 35,157 in 1975. The Chetco entrance has more crossings per year than any other place on the Oregon Coast with the exception of the Columbia River (see Table 12.5A).

With the exception of Port Orford about one half of the boats moored in County ports are of local origin, however, in Port Orford almost all the boats are locally owned (See Table 12.5B). This is probably due to the nature of boat mooring of vessels during the winter storm season with the expense of dry land storage.

TABLE 12.5A

VESSEL CROSSINGS OF OREGON COASTAL PORT ENTRANCES IN 1974

Coastal Entrance	Number of Outbound Crossings					
	May	June	July	Aug	Sept	Total 5-month Period
Mouth of Columbia River*						
Nehalem River	97	217	860	1,951	896	4,021
Tillamook Bay	342	398	2,232	4,964	2,313	10,249
Yaguina Bay	686	1,400	8,931	9,903	6,714	27,634
Siuslaw River	**	1,665	3,874	3,718	1,409	10,666
Umpqua River	1,003	3,302	3,821	9,203	2,109	19,438
Coos Bay	1,230	3,438	6,080	6,478	2,520	19,746
Coquille River	24	164	644	892	161	1,855
Rogue River	14	138	994	2,717	869	4,732
Chetco River	1,627	3,195	9,679	9,073	5,898	29,472
TOTALS	5,023	13,917	37,115	48,899	22,889	127,843

*No official count of vessel crossings is made at the Mouth of the Columbia River due to the exceptionally large number of crossings and expanse of area used by boaters which makes an accurate count impractical.

**No count for May available from U.S. Coast Guard Siuslaw River Station.

Source: U.S. Coast Guard Stations at Garibaldi, Newport, Florence, Winchester Bay, Charleston and Brookings, November and December, 1974 VIZ, Oregon Coastal Ports Development Plan. February, 1975.

Pleasure boating represents the heaviest use of coastal navigation and port facilities. Boat registrations in recent years in Oregon have been on the increase in excess of the rate of population growth. There was an increase in boat registrations of 7.4% from November 28, 1972 to December 3, 1973 as opposed to an overall population increase of under 3%. The high percentage of non-locally-owned boats moored in the Port of Brookings reflects the extensive use of port facilities by residents in the Grants Pass, Medford, and Klamath Falls areas.[1]

The fast growing Southern Oregon area can therefore, be expected to place additional pressures on the port facilities.

TABLE 12.5B

ORIGIN OF BOATS MOORED IN CURRY COUNTY

	Percent Local	Percent Outside Local Area
Port Orford	95%	5%
Gold Beach	58%	42%
Brookings	54%	46%

Source: Oregon Coastal Port Development Plan, February, 1975

12.6 OTHER FORMS OF TRANSPORTATION

Curry County has provisions for other forms of transport primarily for individual pedestrian use. These facilities are predominantly associated with the existing road and streets as bikeways, sidewalks and urban paths.

One percent of State gasoline tax revenues are set aside for the construction of bicycle routes. The incomplete Oregon Coast Bicycle Trail follows Highway 101 and is improved as sections of the highway itself are widened. Sections have been completed in, and north of, Port Orford and in the Harbor area. Bicycle touring is popular during the summer and increasing bicycle related accidents are possible on narrow, curving sections of the highway although signs are posted indicating the presence of bicyclists.

In urban and rural developing areas of the county inadequate separation between pedestrians and motor driven

vehicles is one of the greatest obstacles to increasing pedestrian traffic volumes. Most pedestrian safety problems are related to the incoporated cities because distance between cities probhibit serious pedestrian travel on U.S. 101. The most common safety problem for pedestrian travel on U.S. 101. The most common safety problem for pedestrians in the rural areas of the county involves the lack of sidewalks and paths, which forces pedestrians to compete with vehicles for use of the road. The primary hazard exists in the school age children who need to walk to and from their homes to reach school bus pick-up points. They are exposed twice daily, many times under dark and rainy conditions, to walking on road rights-of-way. This conflict is presently addressed through the State of Oregon traffic laws which allow the school bus driver to control highway traffic and by the rural school systems which provide for safe school bus pick-up points.

12.7 REGIONAL NEEDS

A study done by the Coos-Curry Council of Governments in 1973, "Transportation and Planning Needs in Administrative District Seven" explored transportation problems and suggested potential solutions. The summary of transportation needs for Curry County is still accurate after seven years because most of the identified needs have not been resolved. These principal needs are as follows:

1. Reduction of the county's general isolation from the rest of Oregon with the improvement of east-west transportation in the county, develop commercial air transportation and improve ocean commerce to local ports.

2. Improvement of county transportation systems by further development of arterial highways for safe efficient movement of people and goods, development of airports, transit systems and similar systems.

3. Improvement in local traffic circulation patterns to reduce local congestion.

These three general goals can be translated into the following specific needs for county transportation systems of the county:

1. Improvement of the three county airports to allow further development of the air transportation systems of the county.

2. Improvement of the county road system to eliminate hazards and allow for more efficient use of vehicular transportation in the county.

3. Development of the three ports in the county to increase the volume and variety of sea transport to and from the county.

4. Development of an east-west arterial highway to link the county to Interstate 5 which is the major highway in the state.

5. Development of additional modes of mass transit in the county to serve the people with an economical and efficient means of transport between and within the communities of the county.

12.8 PLAN POLICIES FOR TRANSPORTATION

Curry County recognizes its geographic isolation within the state and its dependence upon the automotive form of transportation as limitations in the future development of the county. Therefore, as part of its comprehensive plan Curry County adopts the following policies with regard to transportation:

1. Curry County will continue to develop its road system as the principle mode of transportation both for access to the county and within the county.

2. Curry County will seek further improvement of mass transit systems to the county by encouraging more frequent scheduling of commercial carriers and by continued support of those systems presently developed for mass transit within the county.

3. Curry County will seek to improve air transport to the county by recognizing the importance of the three county airports and continue to support the development of these sites for future expansion of air service.

4. Curry County will continue to support the development of the ports in the county in order to expand sea modes of transportation to and from the county.

5. Curry County will continue to support programs for the transportation of the disadvantaged where such programs are needed and are economically feasible.

6. The comprehensive plan encourages development to occur near existing community centers where services are presently available so as to reduce the dependence on automotive transportation.

7. Curry County will continue to support the development of an east-west arterial highway from U.S. 101 to Interstate 5 in the county as the best means of reducing the relative isolation of the area from the rest of the state.

APPENDIX 12-I PUBLICLY MAINTAINED ROADS IN CURRY COUNTY

A. Harbor-Winchuck Area:

Name				
Arterial Highway				
U.S. 101	0 to 1.65	3	72'	Good
	1.65 to 3.15	3	62'	Good
	3.5 to 5.0	3	40'	Good
Sub-Total	5.0	= 16.3%		
Arterial				
So. Bank Chetco	0 to 3.09	3	26'	Good
	3.09 to 5.09	5	22' to 24'	Good
	5.09 to 6.09	2	16' to 20'	Good
Lower Harbor Rd.	0 to 3.09	3	26'	Good
	.6 to 1.53	3	24'	Good
Benham Lane	0 to .49	3	20'	Good
Ocean View	0 to 1.1	2	22'	Good
	1.1 to 3.61	2	28'	Good
Winchuck Road	0 to 6.9	3	24'	Good
Sub-Total	18.62	= 60.8%		
Collector				
Shopping Center Ave.	0 to .3	3	22'	Good
East Benham Lane	0 to .17	3	28'	Good
Boat Basin Road	.38		26'	Good
East Hoffeldt Lane	0 to .29	2	20'	Good
Pedrioli Drive	0 to .9	3	20'	Good
Sub-Total	2.04	= 6.7%		
Local Streets				
Harbor Trailer Court	0 to .61	2	20'	Fair
Chapman Lane	0 to .19	2		Good
Hoffeldt Lane	0 to .45	3	20'	Good
Crestline Drive	0 to .13	3	20'	Good
Lively Lane	0 to .17	3	37'	Good
Floral Hill Drive	0 to .4	3	28'	Good
Titus Lane	0 to .13	3	20'	Good
Olsen Lane	0 to .54	4	18'	Good
Freeman Lane	0 to .24	2	16' to 18'	Fair
Museum Road	0 to .3	2	22'	Good
Wollam Lane	0 to .11	4	22'	Good
State Line Road	0 to .51	3	22'	Good
Sub-Total	4.96	= 16.2%		
TOTAL	30.62	= 100%		

B. Brookings-Chetco Area:

Name				
Arterial Highway				
U.S. 101	11.2	3	40' to 72'	Good
Sub-Total	11.2	= 19.0%		
Arterials				
Carpenterville Road	7.7	-	-	Fair
Sub-Total	7.7	= 13.1%		
Collectors				
Cape Ferrelo Road	2.7	5	24'	Good
Rainbow Rock Road	2.15	3,4,5	24' to 26'	Fair
Dawson Tract Road	.55	2	22'	Fair
Airport Road	.84	5	22'	Fair
North Bank Chetco Rd.	8.15	3,4	24' to 28'	Fair
Gardiner Ridge Road	9.4	1,2,5	16' to 24'	Good
South Bank Chetco Road	6.09	2,3,5	16' to 24'	Good
Sub-Total	29.88	= 50.8%		
Local Streets				
Egger Road	1.5	2	24' to 32'	Good
Duley Creek Road	1.3	1,2	14'	Fair
West Rainbow Rock Road	.27	5	24'	Fair
Demoss Road	.31	4	20'	
Brookings Dump Rd.	.20	2	20'	Poor
Passley Road	.17	2	12'	Good
Blueberry Drive	.09	2	16'	Fair
East Harris Heights	.5	1,2	12' to 16'	Good
Parkview Drive	.52	4	22'	Good
Dodge Avenue	.56	4	22'	Good
Stafford Road	.35	4	20'	Fair
Old County Road	2.3	1	12' to 16'	Fair
Lundeen Road	.19	2	18'	
Thompson Road	.5	4	18' to 20'	Good
Ferry Creek Heights Rd.	1.3	2	12' to 16'	Fair
Sub-Total	10.06	= 17.1%		
GRAND TOTAL	58.84			

C. Pistol River Area:

Name	Miles	Surface Type	Width	Condition
Arterial Highway				
U.S. Highway 101	10.	3	40' to 72'	Good
Sub-Total	10.8	= 28.7%		
Arterials				
Carpenterville Rd.	10.31	3	18'	Good
Pistol River Loop	6.3	3	23'	Good
Sub-Total	16.61	= 44.1%		
Collectors				
No. Bank Pistol River Road	7.5	2/1	12' to 22'	Fair
So. Bank Pistol River Road	1.3	2	13' to 16'	Good
Sub-total	8.8	= 23.4%		
Local Streets				
Pistol River Cemetery Rd.	0.24	2	24'	Good
Passley Road	1.2	1	10'	Fair
Sub-total	1.44	= 3.8%		
GRAND TOTAL	37.65 miles			

D. Gold Beach Area:

Name	Miles	Surface Type	Width	Condition
Arterial Highway				
U.S. 101 (in County)	18.9	3	40' to 72'	Good
Sub-total	18.9	= 19.3%		
Arterials				
Jerry's Flat Road	7.7	3	24' to 26'	Good
Sub-total	7.7	= 8%		
Collectors				
Euchre Ck. Road	2.1	3	21'	Good
Ophir Frontage	5.7	3	21'	Good
Squaw Valley Road	8.8	3/2	20' to 22'	Good
Nesika Beach Road	1.1	3	21'	Good
Rogue Wood Parks Road	6.0	3	26'	Good
N. Bank Rogue Road	3.1	3/2	12' to 26'	Good
Old Coast Road	5.0	2	10' to 18'	Good
Wedderburn Loop	1.0	3	18' to 36'	Good
Hunter Creek Road	7.2	2	20' to 34'	Good
Hunter Creek Loop Road	1.3	2,3,4	20' to 34'	Good
Little South Fork	3.4	1	20'	Fair
Sub-total	46.7 miles = 47.8%			
Local Streets				
Arizona Ranch Road	0.9	3	18'	Good
Ponderosa Road	0.5	4	20'	Good
Grange Road	0.3	4	24'	Good
Chandler Road	0.2	4	18'	Good
A Street	0.1	2	24'	Good
B Street	0.1	2	18'	Good
Gun Club Road	0.1	4	24'	Good
Hillside Acres Road	0.8	3	20'	Good
Rogue Hills Road	0.8	3	28' to 40'	Good
Doyle Pt. Road	0.3	2	24'	Good
Curry Street	0.1	3	28'	Good
Riverway Drive	0.04	3	28'	Good
Airport-S. Jetty Road	1.5	2,4	20'	Good
Grizzly Mtn. Road	2.7	1	14' to 20'	Good
Coldiron Road	0.2	4	22'	Good
Fourth Street	0.4	3,4	18' to 22'	Fair
Quarry Road	0.4	1	12' to 16'	Fair
11th Street	0.4	1,4	16'	Fair
Brooks Road	0.5	4	16'	Good
Mateer Road	1.05	4	15' to 20'	Good
Hunter Creek Hts. Road	0.7	3	20'	Good
Sub-total	12.09 miles = 12.3%			
GRAND TOTAL	85.39 miles			

Name	Miles	Surface Type	Width	Condition
D. Gold Beach Area (continued)				
City Streets				
U.S. 101	2.12	1		
City streets	2.0	1	varies	Good/Fair
City streets	2.5	2	varies	Good/Fair
City streets	4.2	3	varies	Good/Fair
City Streets	1.5	4	varies	Good/Fair
Total	12.32			
E. Port Orford-Langlois Area				
Arterial Highways				
U.S. 101	22.3	3		Good
Sub-total	22.3 miles = 21.5%			
Arterials				
Langlois Mt. Road	11.1	3,2,1	16' to 24'	Fair/Good
Sixes River Road	11.0	2-3	22' to 24'	Good
Floras Creek Road	9.0	3,2	16' to 32'	Fair/Good
Floras Lake Road	2.3	3	21'	Good
Port Orford Airport	2.9	4	22'	Good
Elk River Road	11.0	3	22' to 24'	Good
Sub-total	47.3 miles = 45.7%			
Collectors				
Floras Lake Loop	1.1	2-3	18' to 21'	Good
Crystal Creek Road	4.5	1-2	18' to 24'	Fair
Dewey Road	1.1	2-4	14' to 24'	Good
Knapp Road	.4	4	24'	Good
Garrison Loop	.4	2	24'	Good
Paradise Point	.7	2	24'	Good
Port Orford Loop	1.1	3	26'	Good
Sub-total	8.2 miles = 7.9%			

E. Port Orford-Langlois Area (continued)

Local Streets

NAME	Miles	Surface Type	Width	Condition
Bono Road	.41	2	22'	Good
Townley Lane	.09	2	12'	Fair
Second Street	.04	4	32'	Good
Jackson Street	.05	4	24'	Poor
First Street	.22	4	24'	Good
Kane Street	.16	2	18'	Good
Main Street	.19	2	22'	Poor
Hazel Street	.04	2	24'	Good
Alder Street	.10	5	22'	Fair
Kerber Lane	.19	2-3	16' to 20'	Good
Allan Boice Dr.	.54	3	22'	Good
Valpy Street	.10	2	24'	Good
Cope Lane	.27	1	14'	Good
Lakeshore Drive	.3	5	24'	Good
Haga Road	.25	2	18'	Good
Willow Creek Road	.13	1	12'	Fair
Ken Thompson Road	.36	4	22'	Good
Boice Cope Road	.2	5	24'	Good
Boice Cope Fork	.5	1	12'	Poor
Woodruff Lane	.18	5	24'	Good
Stonecypher	1.2	2&4	16' to 22'	Good
Pacific Shop Road	.34	3	26'	Good
Pacific High Road	.15	3	24'	Good
Childers	.28	2	18'	Good
Dement Creek Road	1.0	1	18'	Fair
Edson Creek Park Road	.7	1	12' to 16'	Fair
Butter Mt.-Grassy Knob	5.0	2	24'	Good
McKenzie Road	.5	2	12' to 18'	Fair
Lower Elk River Road	.17	2	22'	Good
Nicholson Drive	.17	3	22'	Fair
Silver Butte Road	.64	2	24'	Fair
Myrtle Lane	.25	2	23'	Fair
Azalea Lane	.20	4	24'	Good
Zumwalt Lane	.14	3	24'	Good
Hensley Hill Road	.97	3	20' to 24'	Good
Garrison Lake Road	.34	2	12' to 16'	Fair
Arizona St.	.86	3	21'	Good
Agate Beach Road	.41	2	16' to 20'	Fair
Port Orford Dock Road	.24	3	24'	Good
Cemetery Loop	1.36	3	21'	Good
Hubbard Creek Road	.76	2	12' to 18'	Fair
Noble Drive	.93	2	18'	Poor
China Mtn. Road	4.1	1	12' to 18'	Poor
Sub-Total	25.8 miles = 24.9%			
GRAND TOTAL	103.6 Miles			

F. Agness Area

Name	Miles	Surface Type	Width	Condition
Local Streets				
Mule Creek Road	0.5	1	10'	--
Agness Illahe	7.0	2	15'	Poor
Agness Road	0.3	2	12' to 24'	Good
Oak Flat Road	3.1	2	9' to 14'	Fair
Youth Camp Road	0.8	2		Fair
Sub-total	18.7 miles			

In addition, the Agness area is served by the following U.S. Forest Service Roads which provide access to and from the area and surrounding environs.

NAME	
Agness Road	F.S. 333
Bear Camp Road	F.S. 3400
Burnt Ridge Road	F.S. 3406
Lobster Creek Road	F.S. 343
Wildhorse Road	F.S. 368
Sawtooth	F.S. 3439
Two Mile	F.S. 3432

Surface type:
1 - Gravel
2 - Penetration
3 - Asphalt concrete
4 - Stabilized base
5 - Stabilized base w/armor coat

APPENDIX 12 II

U.S. 101 Average Daily Traffic -- All vehicles 1969 and 1976

Milepost	Location Description	1969	1976	Increase %	1978	1979	% Decrea 78-79
285.78	Coos-Curry County Line	2300	3200	39.1	3600	3450	-4.2
287.86	0.10 mi. south of Langlois P.O	3050	3850	26.2	4300	4150	-3.5
295.55	0.01 mi. north of Sixes River Rd.	2550	3400	33.3	3800	3650	-3.9
295.76	Sixes River Bridge	2750	3800	38.2	4200	4050	-3.6
296.50	0.01 mi. south of Cape Blanco Hwy.	3200	3950	23.4	4400	4250	-3.4
297.74	0.01 mi. south of Elk River Rd.	3500	4450	27.1	4950	4750	-4.1
299.83	North City Limits of Port Orford	4500	5700	26.7	6400	6200	-3.1
300.46	0.01 mi. south of 19th Street	4950	6100	25.6	6900	6800	-2.9
300.76	0.01 mi. north of 13th Street	5100	6200	21.6	6800	6700	-2.9
300.98	0.01 mi. north of Port Orford Hwy.	5200	6300	21.2	6900	6800	-1.5
301.00	0.01 mi. south of Port Orford Hwy.	5400	6600	22.2	7200	7100	-1.4
301.22	0.01 mi. west of Jackson Street	3650	4450	21.9	5000	4950	-1.0
301.24	0.01 mi. east of Jackson Street	3300	4200	27.3	4750	4700	-1.1
301.31	0.01 mi. east of Jefferson Street	2900	3600	24.1	4050	4000	-1.2
301.48	East City Limits of Port Orford	2200	2900	31.8	3300	3200	-3.0
303.61	N. Bndry of Humbug Mt. State Park	2100	2700	28.6	3100	3000	-3.2
308.07	S. Bndry of Humbug Mt. State Park	2000	2550	27.5	2900	2800	-3.5
316.95	0.01 mi. N. of Euchre Creek Rd.	1850	2400	29.7	2700	2600	-3.7
316.97	0.01 mi. S. of Euchre Creek Rd.	1700	2300	35.3	2600	2500	-3.8
320.71	0.25 mi. No. of Nesika Beach Jctn.	2100	2800	33.3	3100	3000	-3.2
321.21	0.25 mi. S. of Nesika Beach Jctn.	1800	2800	55.6	3150	3050	-3.2
322.22	0.10 mi. S. of Old Hey Algnmt.	1900	2750	44.7	3150	3050	-3.2
327.39	0.10 mi. No. of Wedderburn Jctn.	2750	3700	34.5	4200	4050	-3.6
327.85	Rogue River Bridge	4650	6000	29.0	6900	6700	-1.5
327.91	0.01 mi. S. of Jerry's Flat Rd.	5700	7100	22.8	9200	9000	-1.5
328.61	0.01 mi. S. of Caughell Street	8300	10000	20.5	11500	11300	-1.7
328.73	0.01 mi. S. of 1st Street	8200	9900	20.7	11300	11100	-1.8
	Total Average Decrease						-2.8

Appendix 12 II (continued)

Traffic Count Data continued

Milepost	Location Description	1969	1976	Increase %	1978	1979	% Decre 78-7
328.87	0.01 mi. south of 4th Street	8200	10000	22.0	11400	11200	-1.8
329.18	0.01 mi. south of 8th Street	6200	7800	25.8	8900	8700	-2.2
329.97	South City Limits of Gold Beach	3650	4700	28.8	5400	5200	-3.7
330.30	0.01 mi. S. of N. Hntr. Crk. Acc.	2600	3400	30.0	3900	3750	-3.8
331.08	0.01 mi. S. of S. Hntr. Crk. Acc.	1850	2650	43.2	3050	2950	-3.3
334.77	0.10 mi. N. Cape Sebastian S. Park	1750	2550	45.7	2950	2850	-3.4
336.94	0.08 mi. N. of Meyers Crk. Rd.	1750	2600	48.6	3000	2900	-3.3
339.10	Pistol River Bridge	1450	2200	51.7	2500	2400	-4.0
341.26	0.10 mi. S. Carpenterville Rd.	1450	2000	37.9	2300	2200	-4.3
347.78	Thomas Creek Bridge	1550	2100	35.5	2500	2400	-4.0
354.73	0.10 mi. North of Dawson Road	1700	2600	52.9	3000	2900	-3.3
355.38	North City Limits of Brookings	3750	4950	32.0	5700	5500	-3.5
356.00	0.01 mi. south of Ransom Ave.	5000	6800	36.0	7900	7700	-2.6
356.40	0.01 mi. northwest of Arnold Ln.	6000	8100	35.0	9300	9100	-2.2
357.07	0.01 mi. west of Pacific Ave.	9500	12400	30.5	14300	14100	-1.4
357.09	0.01 mi. east of Pacific Ave.	9000	11800	31.1	13500	13300	-1.5
357.36	0.01 mi. east of Fern Ave.	8600	11400	32.6	13200	13000	-1.5
357.61	0.01 mi. east of Adler Street	7100	10300	45.1	12400	12200	-1.6
357.98	Chetco River Bridge	6800	11000	61.8	14000	13800	-1.4
358.14	0.10 mi. south of Harbor	5400	10500	94.4	13500	13300	-1.5
358.75	0.01 mi. N. of Hoffeldt Ln	4500	7500	66.7	8900	8700	-2.2
358.77	0.01 mi. S. of Hoffeldt Ln	4100	7000	70.7	8600	8400	-2.3
359.33	0.01 mi. S. of Benham Lane	3650	6600	80.8	7800	7600	-2.6
359.57	0.01 mi. south of Pedrioli Rd.	3600	5500	111.5	6500	6300	-3.1
361.10	2.01 mi. north of State Line	3250	4550	40.0	5400	5200	-3.7
362.21	0.01 mi. north of Winchuck Rd.	2950	4100	39.0	---	--	--
362.61	Winchuck River Bridge	2850	4300	50.9	5100	4900	-3.9
363.11	Oregon-California State Line	2750	3900	41.8	4550	4400	-3.3
	Total Average Increase			38.4%			

13. ENERGY CONSERVATION

13.1 INTRODUCTION

The comprehensive Plan for Curry County addresses the need to conserve energy at various levels ranging from the designation of land uses throughout the county in an energy efficient manner to the development of plan policies which will encourage energy conservation on an individual basis. This chapter will serve as a review and summary of these planning efforts by Curry County.

Goal 13 has as its principal intent "to conserve energy" by causing the management of uses of the land to maximize the conservation of all forms of energy. The guidelines for Goal 13 further state that the land use plan should, to the maximum extent possible, combine density gradients along high capacity transportation corridors to achieve greater energy efficiency. Also, the plan should consider existing and potential renewable energy sources and whenever possible actions provided under the comprehensive plan should utilize renewable energy resources.

13.2 ENERGY CONSERVATION

Conservation methods are the most important energy source available to the people of Curry County and should be utilized wherever possible to the benefits of the individual, the county and the state. Energy conservation was a consideration in the development of the county comprehensive plan from the standpoint of designating land uses which will promote efficient use of energy and by developing plan policies which recognize energy conservation.

Perhaps the most important aspect of energy conservation that can be reflected in a comprehensive plan is the designation of land uses in an appropriate manner so as to encourage efficient energy use. This can be achieved by utilizing certain principals in determining land use designations such as:

1) designating industrial and manufacturing uses at sites which are close to the materials they utilize to avoid long haul distances for raw material;

2) designating light commercial uses in community centers to provide commercial centers for shopping and services;

3) designating residential uses near community and commercial centers so that people do not have to commute long distances to work or shop;

4) designating rural commercial sites in areas that are predominantly in agricultural or forestry use so that farmers or people do not have to commute long distances to purchase essential goods.

Curry County used these principals in developing the land use designations in its comprehensive plan with the intent of encouraging energy conservation whenever possible.

13.3 LAND USE DESIGNATIONS AND ENERGY CONSERVATION

The Curry County Comprehensive Plan has designated lands for various uses which will promote energy conservation by concentrating commercial and industrial uses in community centers where they are near needed materials and a labor force. Residential designations were also placed in the areas surrounding community centers in order to discourage lengthy commuting distances.

The specific features of the comprehensive plan which are intended to promote energy conservation are as follows:

1. The mutual adoption of reasonable urban growth boundaries by Curry County and its incorporated cities which concentrate most residential uses in the vicinity of these cities.

2. The designation of several unincorporated community centers throughout the county which have commercial, industrial and residential areas within a defined boundary. These areas provide a community function for the people residing in the area so that frequent trips to the larger cities are not required (e.g. Langlois, Nesika Beach-Ophir, Agness, and Pistol River).

3. The designation of industrial sites near the source of material required by the use (e.g. forest industry mill sites near major forest access roads; gravel and cement sites near river gravel bar source areas, and seafood processing facilities near port facilities).

4. The designation of rural commercial sites in various parts of the county to provide some level of services to farmers and other rural residents without having to travel to a city or community center (e.g. Denmark filling station, Sixes store, etc.).

5. The designation of rural residential lands is encouraged in areas that are located on arterial roads or main collector roads so that the use of automotive transport is efficient and compatible with existing transportation corridors.

The comprehensive plan also provides for energy conservation by making reasonable lot size requirements on residential lands. Generally the lot size is no larger than is adequate for the provision of a water source to the residence and disposal of sewage wastes. Where municipal water and sewer services are available small city size lots can be created (6,000 sq.ft.) to allow higher density development. Where municipal or community water service is available but sewage must be disposed of by septic system a minimum lot size of one acre is required for medium density development. Where water must come from individual wells and septic systems are used for sewage disposal, lot sizes are either 2½ acres or 5 acres for low density rural residential development. These lot sizes allow for more concentrated residential uses closer to community centers where public facilities are available and lower density development where individual systems are needed.

13.4 ALTERNATE ENERGY SOURCES FOR INDIVIDUAL USE

Curry County has potential for a number of alternate or renewable energy sources as was discussed in Section 5.4. This previous discussion was in reference to the use of solar, wind, small-scale hydro and wood sources energy on a commercial scale. These same renewable energy sources also have potential for individual application in energy conservation. The comprehensive plan recognizes the possibility that individuals may wish to utilize these resources and has made provision for them in its ordinances.

Solar energy recovery is possible in Curry County and is presently under-utilized and the use of either active or passive solar techniques is encouraged where possible. Access to solar energy is not a problem in Curry County becuse of the rural nature of the county and the setback provisions of the implementing zoning ordinance.

Small individual wind energy conversion systems (WECS) are commercially available for individuals to use in generating energy for their own use. Several of these systems have been installed in the county with varied success. The comprehensive plan recognizes that these systems can provide energy conservation through the use of renewable energy sources and encourages their use providing they are properly installed and do not create a nuisance to adjacent residents. Use of a WECS is allowed in most zones as a conditional use.

Small scale hydro-electric energy generating devices are also available for individual use where suitable stream sites exist. These facilities generally involve the use of a water wheel or small turbine which is powered by diversion of water from the stream. This alternate energy source has not been utilized to any great extent in the county although a few isolated homesites do have some of their electrical requirements supplied by hydroelectric power with fuel powered generators for back up.

Wood has also become an important alternate energy source to electrical heating in the county because of the plentiful supply of fuel wood. The Curry County Building Department estimates that over 75% of new single family dwellings recently constructed utilize wood stoves for an alternate heating source. The Comprehensive plan recognizes that wood will be an important fuel source in the future and has designated most of the land in the county for forest use. This includes small lot forest uses where resource lands have been parcelized to lot sizes too small for commercial production of timber. Hopefully these areas will provide fuel wood for this type of energy conservation. Fuel wood is also available from public and private commercial forest land on a permit basis.

13.5 PLAN POLICIES FOR ENERGY CONSERVATION

Curry County recognizes the need for energy conservation and will encourage conservation by the adoption of a comprehensive plan and its implementation. The following specific policies address specific needs and energy conservation goals:

1. Curry County has designated land uses in its comprehensive plan with the intent of achieving energy conservation and the county will continue to achieve this goal by making land use decisions that are consistent with energy conservation.

2. Curry County recognizes that there is potential for the generation of energy from alternate and renewable sources and has made provisions in its implementing ordinance to allow the installation of devices which will generate such energy.

3. Curry County recognizes the use of wood as an alternate fuel source for heating and has encouraged the use of wood as a fuel through its building code which allows wood fuel heating and its zoning ordinance which designates lands for forest and woodlot use.

14 URBANIZATION

14.1 INTRODUCTION

Provision of adequate urban and urbanizable lands is essential as a means of meeting the development needs of a county. This chapter of the comprehensive plan describes the population of the county, including its historical growth patterns and distribution, urban growth boundaries of the county's three cities, the rural communities and other committed rural residential areas, and the need for additional rural residential lands.

Goal 14 requires that comprehensive plans "provide for an orderly and efficient transition from rural to urban land use. Urban growth boundaries shall be established to identify and separate urbanizable land from rural land." It further states that establishment of these boundaries shall be based upon the following considerations:

(1) Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;

(2) Need for housing, employment opportunities, and livability;

(3) Orderly and economic provision for public facilities and services;

(4) Maximum efficiency of land uses within and on the fringe of the existing urban area;

(5) Environmental, energy, economic and social consequences;

(6) Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,

(7) Compatibility of the proposed urban uses with nearby agricultural activities.

Sufficient amounts of urbanizable land should be designated to accommodate further urban expansion taking into account (1) the growth policy of the area, (2) population needs by the year 2000, (3) the carrying capacity of the planning area, and (4) open space and

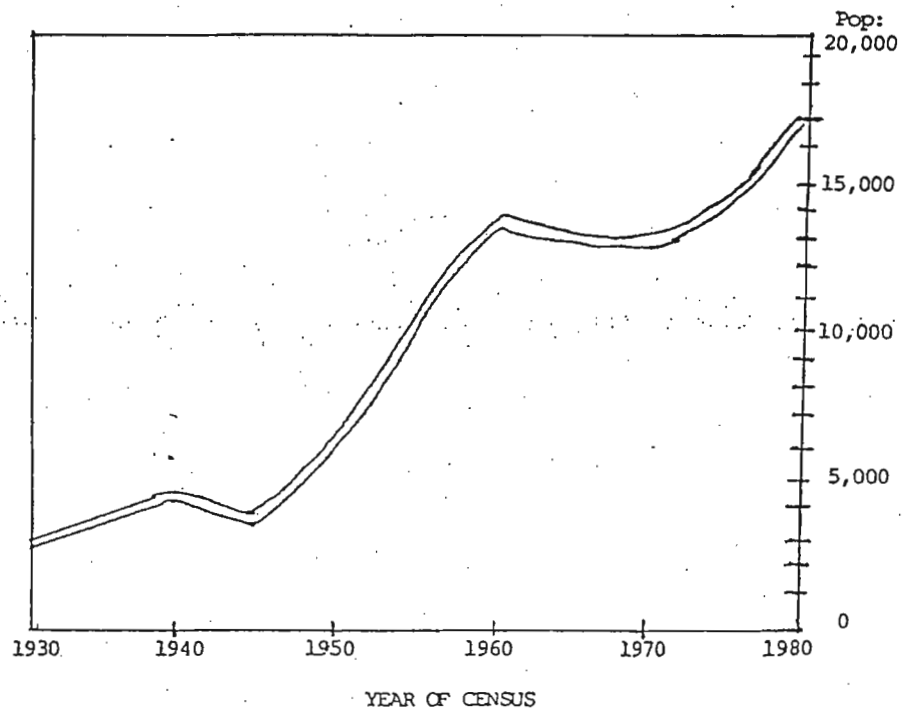
recreational needs. In addition consideration should be given the carrying capacity of the air, land and water resources of the planning area.

14.2 POPULATION DATA

A significant portion of the available information on the population of Curry County is from "An analysis of the Curry County Census," Center for Population Research and Census (CPRC) Portland State University, August 31, 1979, which reports on a special census of the county conducted at the request of the Curry County Commissioners. Only preliminary data from the 1980 census was available at the time of the preparation of this section.

FIGURE 14.2A

CURRY COUNTY POPULATION GROWTH 1930-1980



14.2.1 Historical Background 1930-1980

County population has increased from 3,257 in 1930 to 16,992 residents in April, 1980. The population was stable during the war years, but more than doubled during the 1950's, as illustrated in Figure 14.2A and Table 14.2A. Between 1960 and 1970, county population decreased by about seven percent then grew during the 1970's. Between 1970 and 1980 the population of Curry County increased about 30 percent compared to about 25 percent for Oregon and 11 percent for the United States.

TABLE 14.2A[1]

Population for Selected Years, Curry County, Oregon

Year	Population		Change (%)	Average Annual Change
1910	2,044		-----	---
1920	3,025		+ 48.0	+ 4.8
1930	3,257		+ 7.7	+ 0.8
1940	4,031		+ 23.8	+ 2.4
1950	6,048		+ 50.0	+ 5.0
1960	13,983		+131.2	+13.1
1965	13,000		-----	- 1.4
1970	13,006	Since 1960:	- 7.0	- 1.3
1975	14,100		-----	+ 3.3
1980[2]	16,992	Since 1970:	+ 30.6	---

1970 U.S. Census; "Curry County Resource Atlas," 1973; "Overall Economic Development Plan, 1977-78 Action Program," CCD Economic Improvement Association; Center for Population Research and Census, PSU with staff computations.

[2] 1980 U.S. Census Preliminary Data

Curry County ranked 24th in population out of 36 Oregon counties in 1980, but its 1970-80 growth rate was 13th in the state. Estimates by the Center for Population Research and Census (CPRC) indicate that 84% of county population growth between 1970-78 was due to net in-migration.

14.2.2 Population Growth and Distribution in Curry County

From the time of the 1950 federal census until 1979 Curry County was divided into geographic divisions similar to those used in the census conducted by CPRC in July, 1979. These three areas were the Port Orford

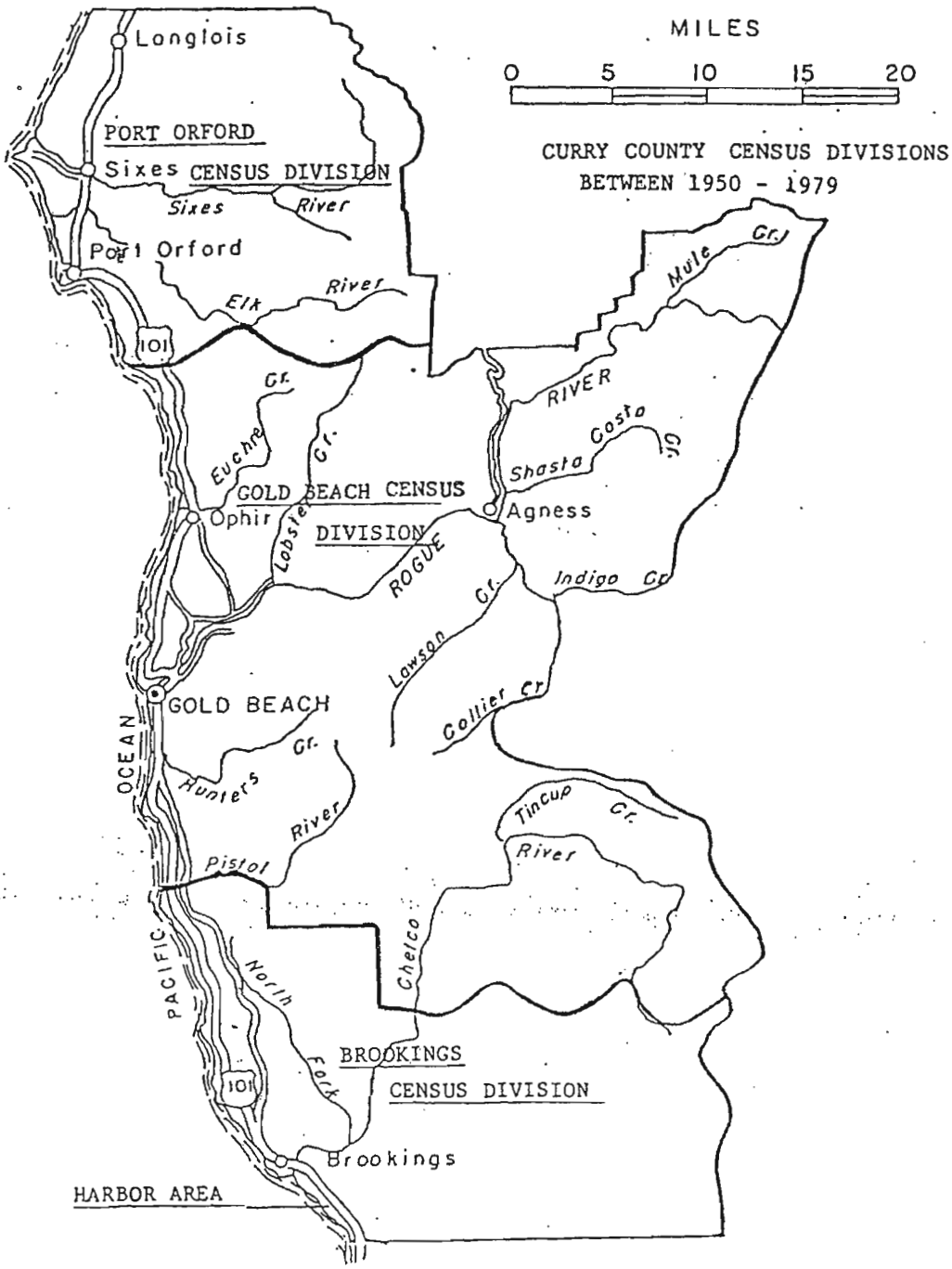

MILES
0 5 10 15 20
CURRY COUNTY CENSUS DIVISIONS
BETWEEN 1950 - 1979
Langlois
PORT ORFORD
CENSUS DIVISION
Sixes
Sixes River
Port Orford
Elk River
101
Mule Cr.
RIVER
Costa Cr.
Shasta
Euchre Cr.
GOLD BEACH CENSUS
DIVISION
Ophir
Agness
Lobster
ROGUE
Indigo Cr
Lawson Cr.
Collier Cr
GOLD BEACH
OCEAN
Hunters Cr.
River
Tincup Cr.
River
Pistol
Chetco
PACIFIC
North Fork
BROOKINGS
CENSUS DIVISION
101
Brookings
HARBOR AREA

FIGURE 14.2B

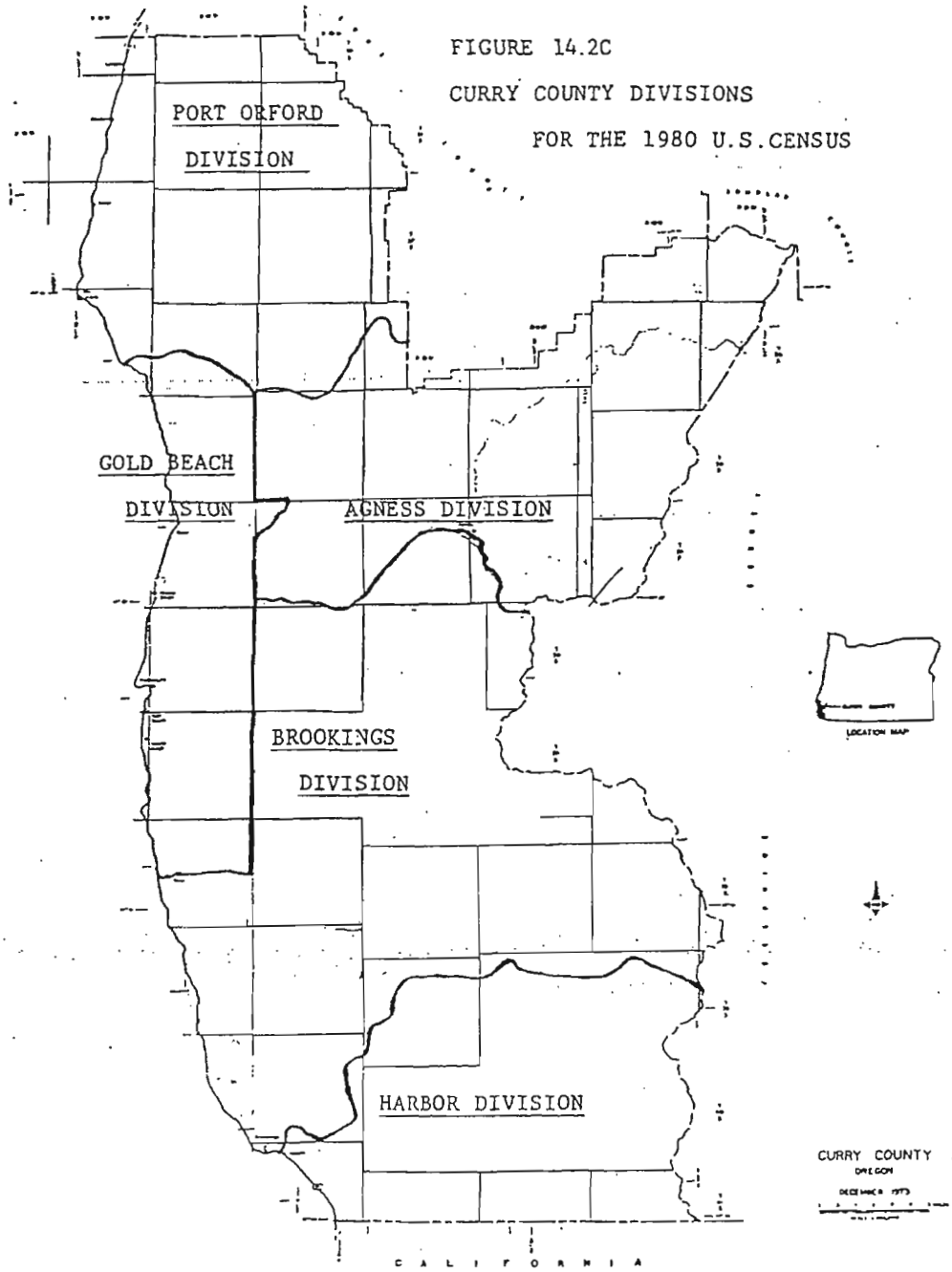
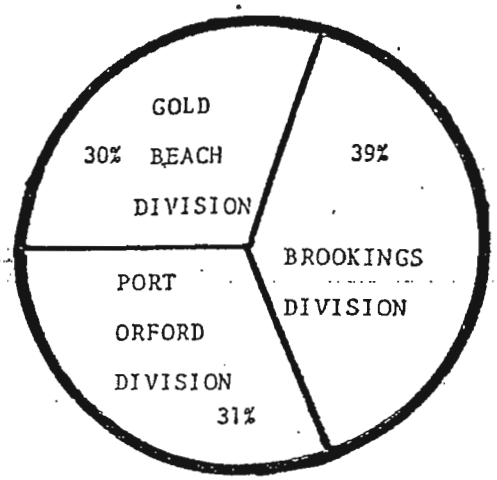


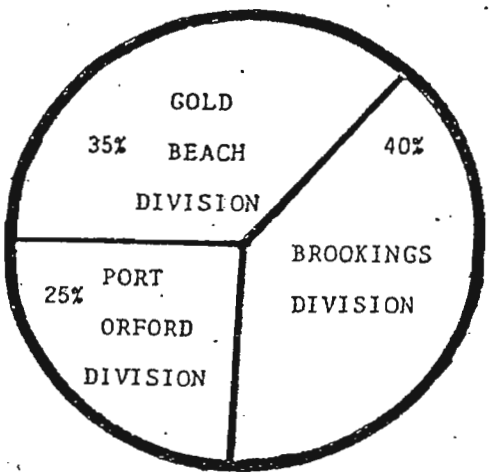
FIGURE 14.2C
CURRY COUNTY DIVISIONS
FOR THE 1980 U.S.CENSUS

POPULATION DISTRIBUTION BY CENSUS DIVISION 1950 - 1980

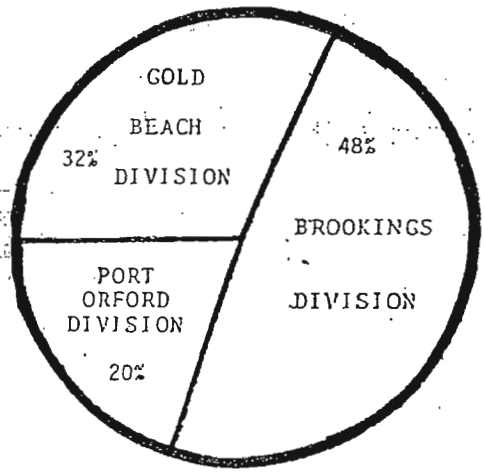
1950



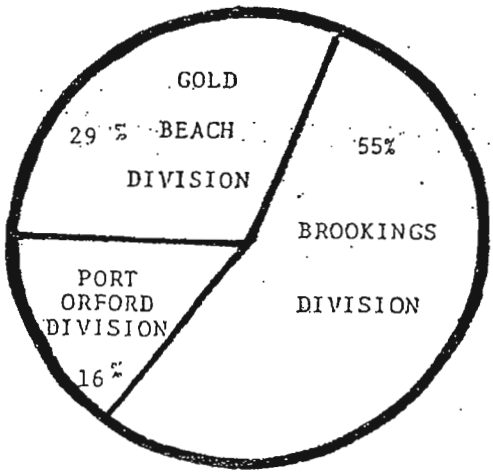
1960



1970



1980



division in the northern part of the county, the Gold Beach division in central Curry County and the Brookings division in the south. The Gold Beach division was separated from the Port Orford division at Humbug Mountain State Park and was bounded on the south by Pistol River. These census divisions, shown in Figure 14.2B, differed slightly from later Census Bureau divisions, but had little effect on population totals because the boundaries were in sparsely settled areas. The Harbor unincorporated area south of Brookings is also shown in Figure 14.2B. For the U.S. Census in April, 1980, the County was divided into the divisions shown on Figure 14.2C. In this report, the county is divided into the original three areas for the sake of consistency with past data.

In 1980, more than half of the population of Curry County resided in the southern third of the county. Thirty-seven percent of the county population was centered in Brookings, the largest city, and the Harbor unincorporated area.

Since 1950, when the census was first taken by geographic regions within the county, the largest and increasing proportion of the population has resided in the Brookings division. The fraction of the population in the Port Orford division decreased since 1950, and that portion in the Gold Beach division decreased after 1960 (Figure 14.2D).

14.2.3 Population Growth by County Division

Table 14.2B shows population change for the county, census divisions and incorporated cities between 1940 and 1980. Over the last 30 years the Brookings division grew at the fastest rate, especially between 1970 and 1980, when the population increased by more than 48 percent. The southern third of the county showed a modest gain during the 1960's while the remainder of the county lost population. The population of the City of Brookings has increased by about 24 percent since the 1970 federal census. The district population growth and estimated projections for the future are shown in Figure 14.2E.

The Gold Beach division, the fastest growing area in the county during the "population boom" of the 1950's, has stabilized and decreased slightly over the past 20 years. The City of Gold Beach has shown a similar pattern, nearly tripling in population between 1950 and

TABLE 14.2B

POPULATION IN GROWTH IN CURRY COUNTY
BY CENSUS DIVISION, 1950-1980

	1940	1950	1960	% change 1950-60	1970	% change 1960-70	1980	% change 1970-80
County	4301	6,048	13,983	131	13,006	-7	16,992	31
Brookings Division	NA	2,388	5,573	133	6,254	12	9,268	48
City of Brookings		-----	2,637	---	2,720	3	3,384	24
Gold Beach Division	NA	1,803	4,883	171	4,145	-15	5,001	21
City of Gold Beach		677	1,765	161	1,554	-12	1,515	-3
Port Orford Division	-	1,857	3,527	90	2,607	-26	2,723	4
City of Port Orford	755	674	1,171	74	1,037	-11	1,061	2
% of Population in Incorporated Cities	NA	NA	40.0%		40.8%		35%	
% of Population in Un-incorporated Areas	NA	NA	60.0%		59.2%		65%	

1960, declining during the 1960's and 1970's. These trends and estimated growths for the future are shown in Figure 14.2F.

The Port Orford division did not grow as rapidly as the remainder of the county during the 1950's. Between 1960 and 1970 this region showed the largest decrease in population. The 1980 census figure is only slightly higher than the 1970 federal census figure. Figure 14.2G shows these population changes and estimated growth for the future.

The Curry County population is estimated to grow to about 33,000 in the year 2000 as shown in Figure 14.2 H. Perhaps 55 to 60 percent of that future population will be in the Brookings census district, about 25 to 30 percent in the Gold Beach district and about 10 to 15 percent in the Port Orford district. These projections assume that recent trends in birth rates, mortality rates and net in-migration will not change significantly. The projections could prove to be very wrong if certain events take place, such as (a) a severe recession in the already weakened county industry, which could cause even more of the people in the younger and working age population groups to leave the county; (b) a boom in the number of retirees moving into the county; (c) a curtailment to the inflow of retirees because of a lack of suitable housing and facilities; or (d) development of the mining industry near or within the county.

Currently, it appears that there could be future mining development in the southern part of the county or in northern California. This could bring about increased growth in the Brookings area, which is already the fastest growing section of the county and could affect the accuracy of the above forecast of population.

14.2.4 Household Size

There has been a trend throughout the U.S. toward a smaller average number of persons per household. This demographic phenomenon may be due to a number of factors, including later marriages, higher divorce rates, a preference for smaller families, and a larger number of persons in the 18-25 and over-60 age groups without children or living alone. This trend is also taking place in Oregon and Curry County. Table 14.2C shows decline of household size since 1970.

Figure 14.2E

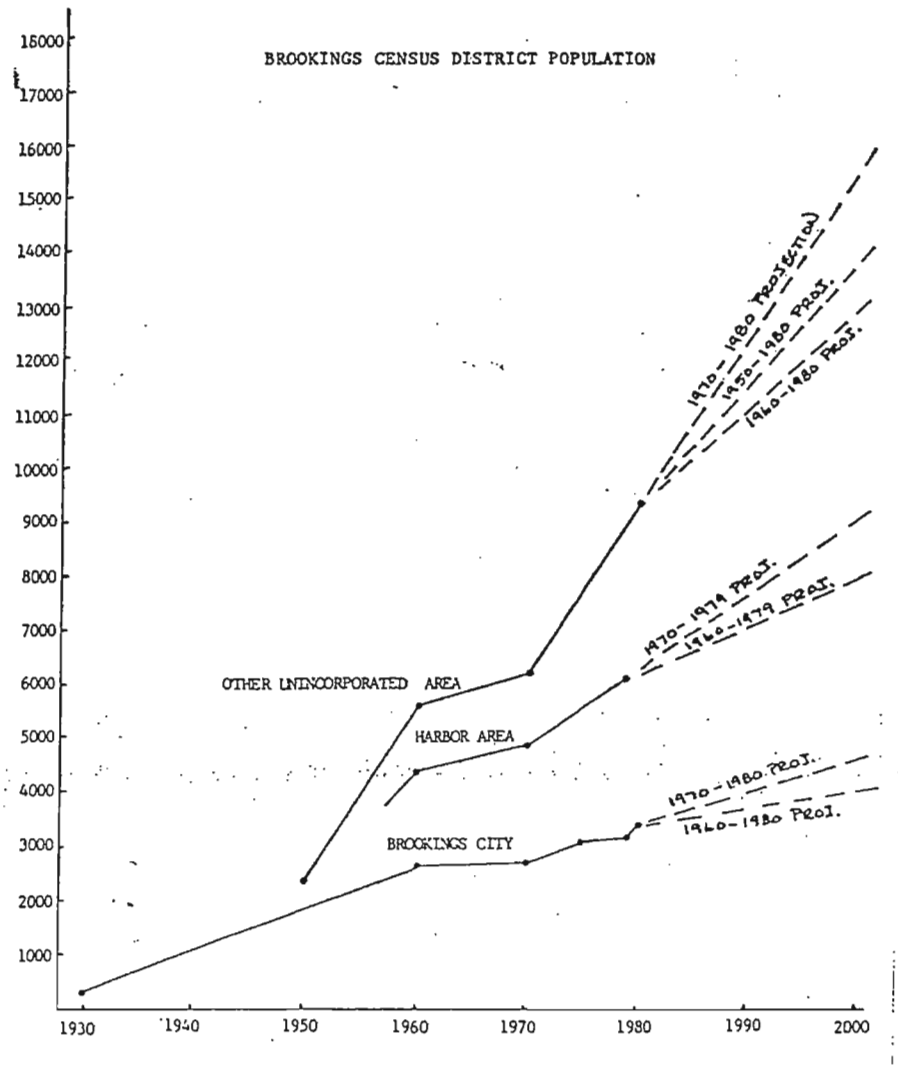

BROOKINGS CENSUS DISTRICT POPULATION
18000
17000
16000
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
1930
1940
1950
1960
1970
1980
1990
2000
OTHER UNINCORPORATED AREA
HARBOR AREA
BROOKINGS CITY
1970-1980 PROJECTION
1950-1980 PROJ.
1960-1980 PROJ.
1970-1979 PROJ.
1960-1979 PROJ.
1970-1980 PROJ.
1960-1980 PROJ.

Figure 14.2F

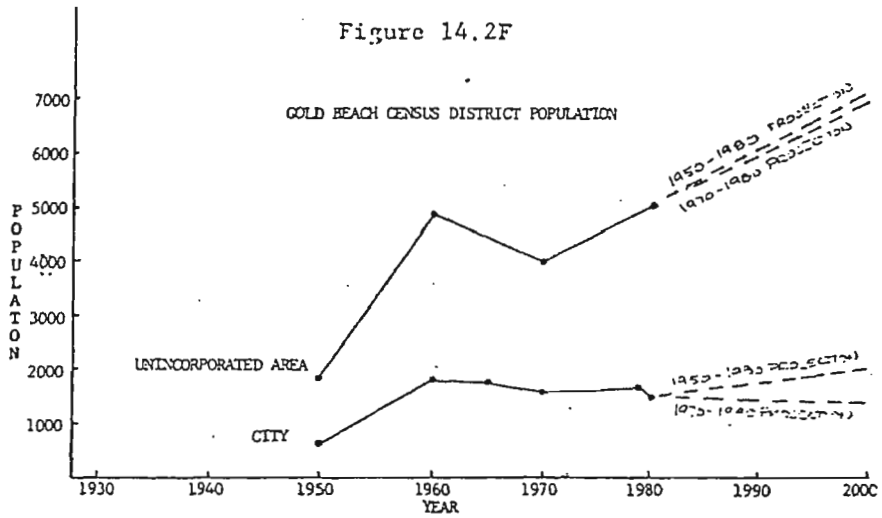


Figure 14.2G

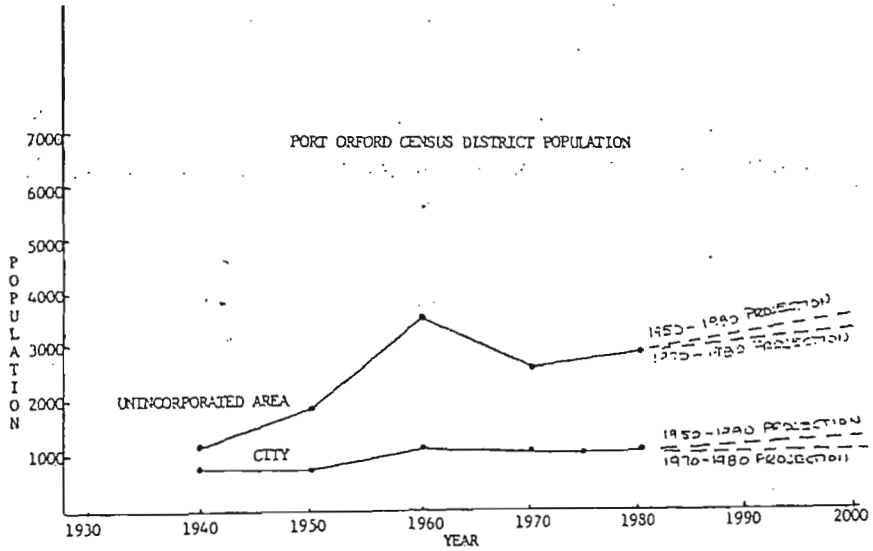
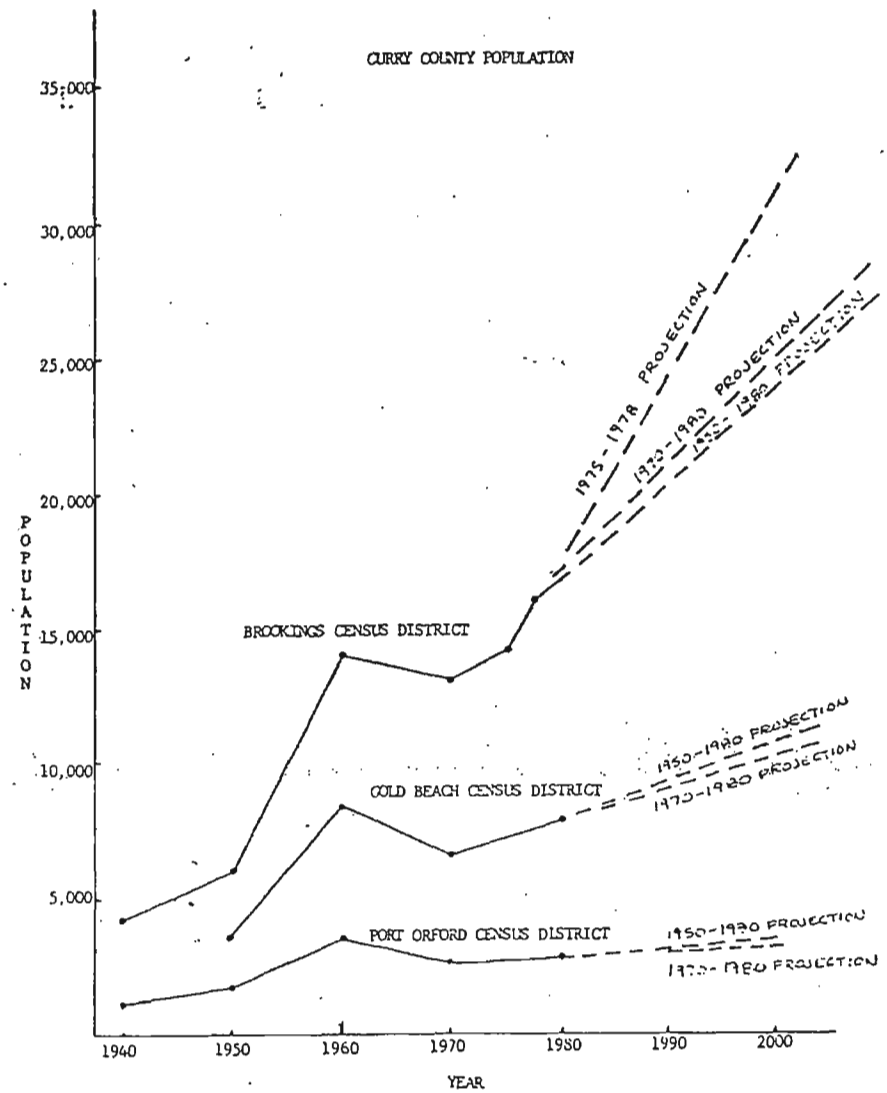


Figure 14.2H


CURRY COUNTY POPULATION
35,000
30,000
25,000
20,000
15,000
10,000
5,000
POPULATION
BROOKINGS CENSUS DISTRICT
COLD BEACH CENSUS DISTRICT
PORT ORFORD CENSUS DISTRICT
1975-1978 PROJECTION
1950-1980 PROJECTION
1970-1980 PROJECTION
1950-1980 PROJECTION
1940
1950
1960
1970
1980
1990
2000
YEAR

One of the reasons why the average household size of Curry County is lower than the state and national averages is because of the older age structure of the county, which will be discussed later in this report. It is also due to the large population of residents living in mobile homes, since mobile homes generally have a lower average household size than single-family residences. About 31% of the living units were mobile homes. The inventory of different types of housing units were mobile homes. The inventory of different types of housing units in the county is discussed in Section 10 of the plan.

Table 14.2C shows changes in the household size between 1970 and 1980 within the county.

TABLE 14.2C

AVERAGE HOUSEHOLD SIZE IN U.S., OREGON & CURRY COUNTY

	1970 Avg. Household Size	1980 Avg. Household Size	%change
United States	3.17	2.83	-10.7
Oregon	2.81	2.42	-13.9
Curry County	2.80	2.43*	-13.2*

* Based upon the County Assessor's data of about 7000 housing units in Curry County in 1980. The preliminary estimate from the U.S. Federal Census indicates a number of about 7499 units, for an average of 2.26 persons per household.

14.2.5 Age and Structure of Curry County Population[1]

The sex structure of the Curry County population differs from those of the State of Oregon and the United States. U.S. Census Bureau estimates in 1970 indicated that about 51 percent of the national population were female and 49 percent male. These percentages also held true for the state of Oregon. In Curry County, however, the breakdown by sex was almost even. Within the county, females outnumbered males in the incorporated cities.

[1] Unless otherwise shown, the data used in this section is taken from the County 1979 Census conducted by the Center for Population Research and Census at Portland State University.

TABLE 14.2D

CHANGES IN AVERAGE HOUSEHOLD SIZE, 1970-1980

	1970 Average Household Size	1980 Average Household Size	Percent Change
Curry County	2.80	2.43	-13.2
Brookings Division	2.84	2.30	-16.2
Brookings City	2.85	2.26	-20.7
Harbor*	2.62	2.53	- 3.4
Gold Beach Division	2.75	2.54	- 7.6
Gold Beach City	2.98	2.32	-22.2
Port Orford Division	2.80	2.39	-14.6
Port Orford City	2.72	2.56	- 5.9

*Includes the Harbor sanitary district described in Figure 2 and the area west of the highway and south to the California border.

Table 14.2E shows population by sex and minority status for 1970. Although out-dated, the figures for Curry County are probably close to actual figures today as there are very few minority people within the county and little flux in actual numbers. Migrant workers (primarily for tree planting or cone collecting work) do pass through the county seasonally but these people are considered to be transient workers and are not included under the totals listed on Table 14.2E.

Curry County has an older age structure than the state and of the nation. The median age group for the county is 35 to 39, compared to 25-29 for Oregon and the U.S. Median age for the county in 1970 was in the 30-34 age bracket. The highest median age within the county (45-49(is in the Harbor unicorporated area, where more than 45% of the population is older than 50 years.

Another example of how the population structure of the county differs from the state and the nation is the percentage of population in each age group. Table 14.2F and Figure 14.2I point out that the percent of population over 50 years of age is considerably greater in Curry County than for Oregon or the United States which have similar age structures. Over 38 percent of the county population is 50 years of age and over, compared to about 25 percent in that age group for Oregon and the U.S.

TABLE 14.2E

POPULATION BY SEX AND MINORITY STATUS BY CCD DISTRICT

Minority Status	Coos		Curry		Douglas		District	
	Total	Female	Total	Female	Total	Female	Total	Female
Total	56,515	28,170	13,006	6,425	71,743	35,778	141,264	70,373
White	55,810	27,830	12,799	6,323	71,044	35,432	139,653	69,585
Black	57	19	2	1	57	15	116	35
American Indian	363	176	180	86	413	206	956	468
Oriental	192	105	13	9	151	89	356	203
Other Races	93	40	12	6	78	36	183	82
Spanish American	583	277	153	85	863	381	1,599	743
Minority Group 1/	1,288	617	360	187	1,562	727	3,210	1,531

Source: Census of Population, 1970

[1]Sum of Spanish American and all races except white. Some duplication possible since Spanish American may include nonwhite races as well as white.

TABLE 14.2F

AGE GROUPS AS PERCENT OF TOTAL POPULATION

Age Groups	1979 Curry County	1978[1] Oregon	1978[2] United States
0-4	5.99	7.74	7.10
5-9	6.02	7.25	7.76
10-14	7.12	8.35	8.39
15-19	7.78	9.35	9.49
20-24	6.62	9.76	9.31
25-29	7.21	8.81	8.43
30-34	6.35	7.36	7.34
35-39	5.78	5.90	6.04
40-44	4.59	5.01	5.18
45-49	4.55	4.88	5.21
50-54	5.55	5.11	5.34
55-59	6.31	4.98	5.13
60-64	7.10	4.55	4.32
65-59	6.90	3.82	3.76
70-74	4.71	2.91	2.84
75-79	2.31	2.06	1.96
80-84	1.22	1.32	1.28
85+	.88	.77	1.04

[1] 1978 CPRC Estimate

[2] U.S. Census Bureau Estimate

14.2.6 Population Pyramids

One useful technique for analyzing the age/sex structure of a population is a graph known as a population pyramid. Figures 14.2J, 14.2K and 14.2L compare pyramids for the State of Oregon, Curry County and the Harbor unincorporated area. Size of the population is shown on the horizontal scale of the graph and age groupings on the vertical, with the male population to the left and the female population to the right of the vertical scale.

Figure 14.2J, a 1978 estimate of the age/sex structure of Oregon, shows the largest population in the 15-29 age brackets, representing the postwar baby boom, a gradual decline in the 30-59 age groups, and a further decline in ages 60 and over. The fact that the base of the pyramid, the population less than 20 years of age, is inverted is an indication that fertility rates are declining and the baby boom has ended.

The Curry County pyramid in Figure 14.2K shows percent differences by age and sex between 1970 and 1979. A smaller percentage of the population is less than 20 years of age, similar to the pattern of declining birth rates prevalent throughout the United States. There is a higher percentage of population in 1979 than in 1970. These are the persons born in the post-war baby boom, and the higher percentage of population in 1979 is more of an indication of this age group getting older rather than in-migration. However, the increase of population in the 60-and-over age group is an indication of in-migration. It is interesting to note that the proportion of males to females over 60 years of age is almost symetrical, as there are more women than men in this age group in the state and throughout the United States.

Figure 14.2L shows the population pyramid of the Harbor unincorporated area, which is both the fastest growing area in the county and has the oldest population. This graph bears little resemblence to the pyramid-shaped age/sex structure of Oregon in Figure 14.2J. Seventy-five percent of the population is 21 years of age or older and the 60-75 year age group is the largest by far.

The changes during the past 20 years in the relative numbers of people in the different age groups within Curry County and its principal cities are shown in Figures 14.2M through 14.2P. Clearly indicated are the

PERCENT DISTRIBUTION OF POPULATION
FOR OREGON, 1978, AND CURRY COUNTY, 1979

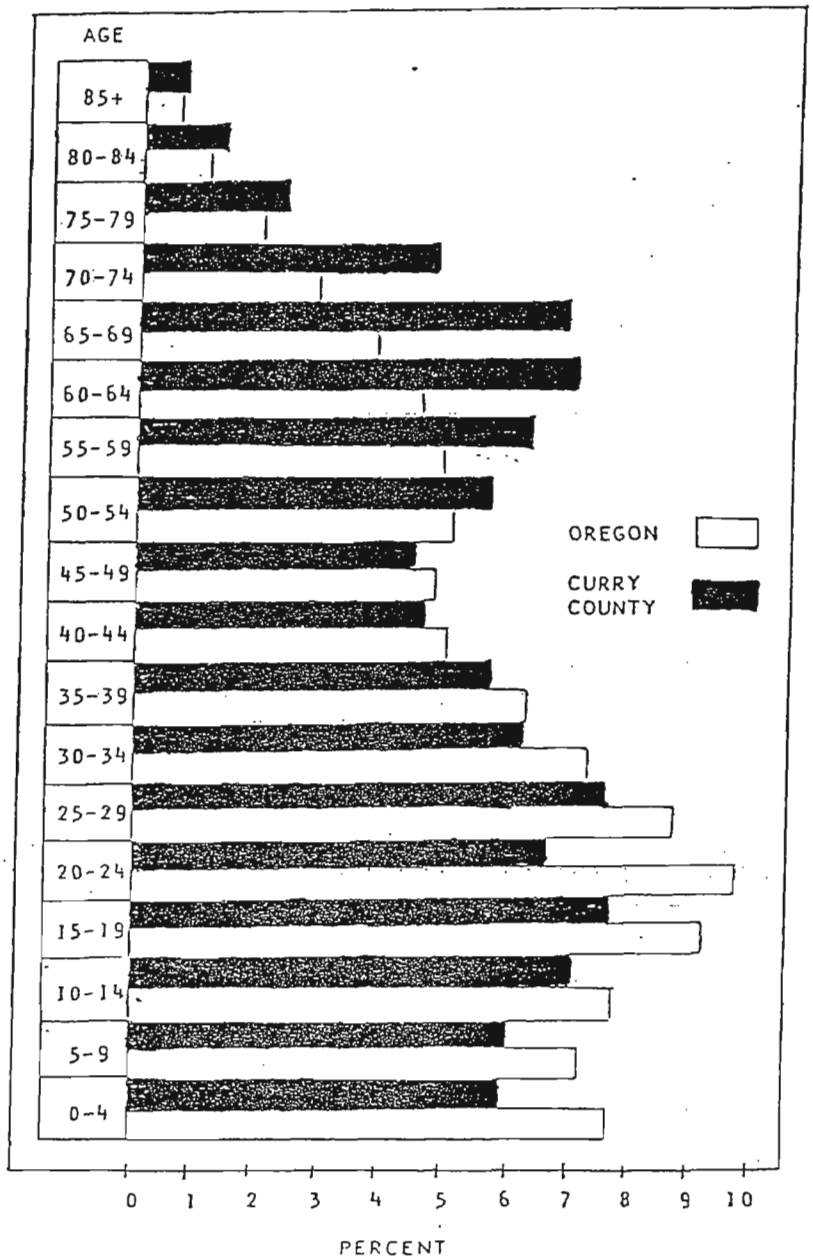


FIGURE 14.2I

FIGURE 14.2J

POPULATION OF OREGON BY AGE AND SEX 1978

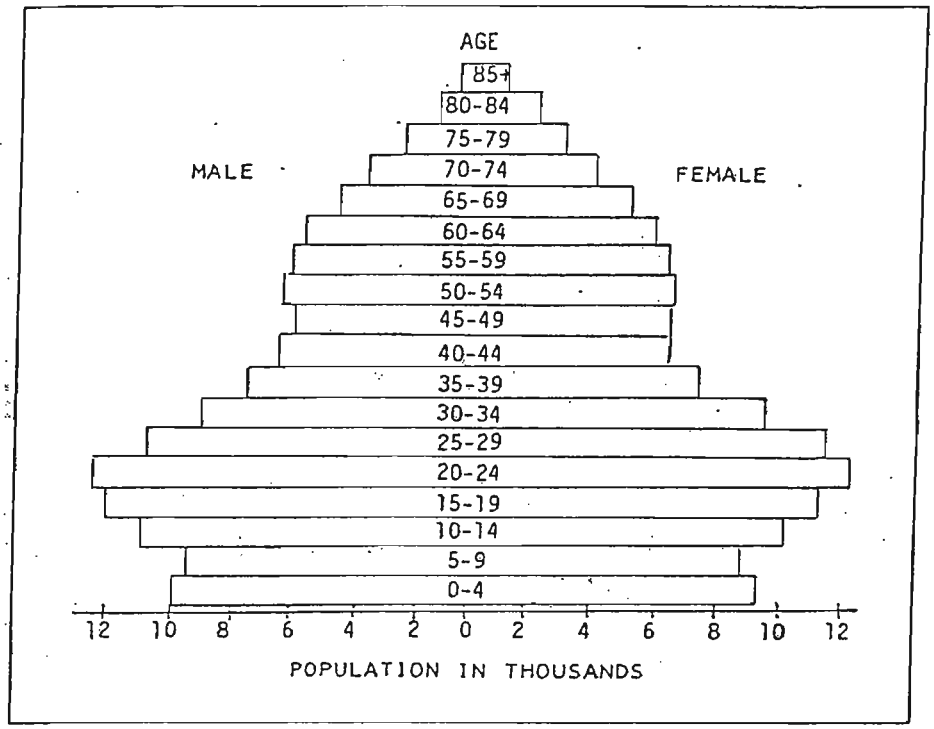


FIGURE 14.2K

CHANGES IN THE POPULATION STRUCTURE
OF CURRY COUNTY 1970-79

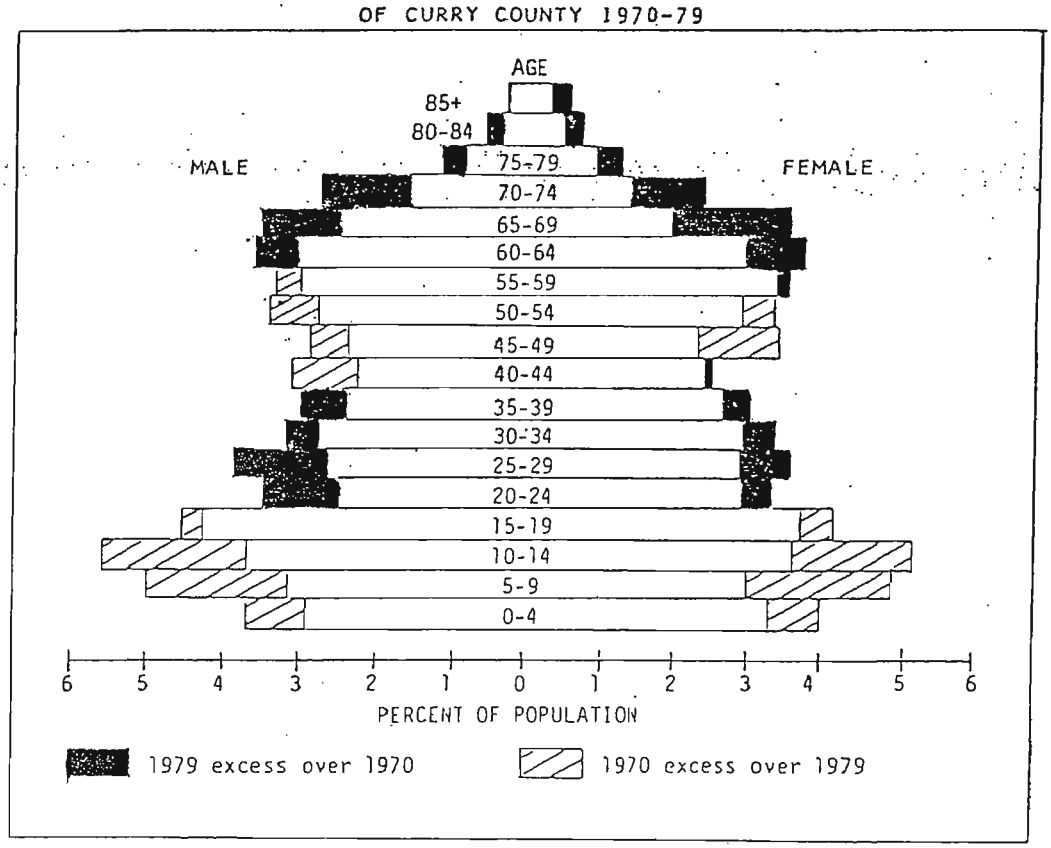
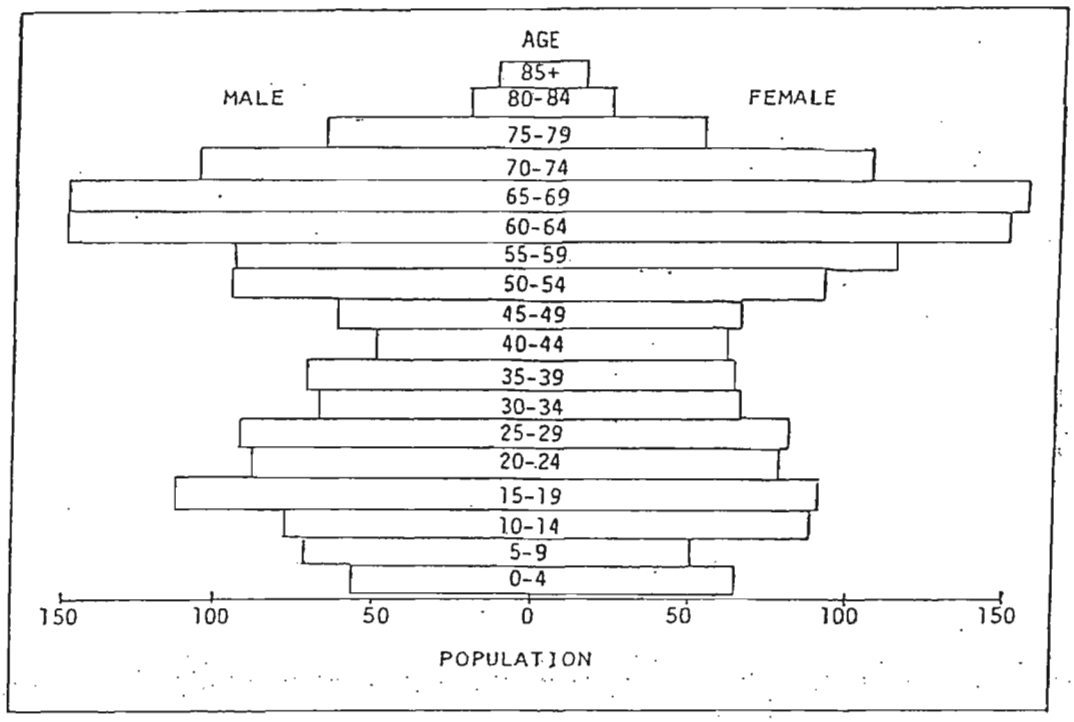


FIGURE 14.2L

POPULATION OF HARBOR UNINCORPORATED AREA
BY AGE AND SEX 1979



decreasing proportions of people in the younger (0-19 years) age group and the marked increases in the older age group (60 years or older). In contrast, the population of the entire state of Oregon has retained rather constant proportions of people in the different age groups (Figure 14.2Q).

People in the younger and working age groups are leaving the county because of lack of economic opportunities. The principal industry, lumbering, has been steadily declining and further decline is expected for several years. The future of the fishing industry is questionable. Only about 200 people are employed in farming. Employment in services has grown in the past but increasing oil prices should reduce tourist trade. Government employment continues to increase in the county.

These population trends make it clear that Curry County and its city governments must make important policy decisions soon if they are to retain viable population and economics.

FIGURE 14.2M

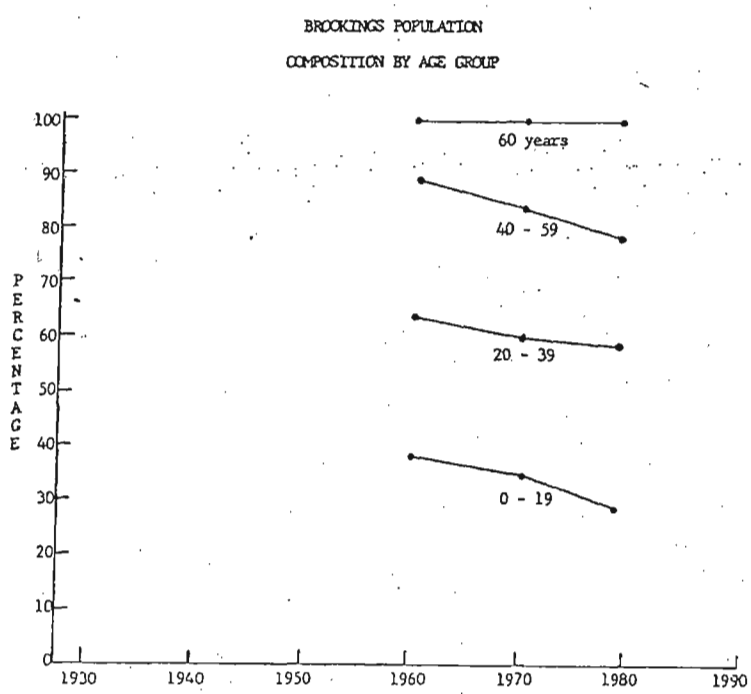


FIGURE 14.2N

COLD BEACH POPULATION

COMPOSITION BY AGE GROUP

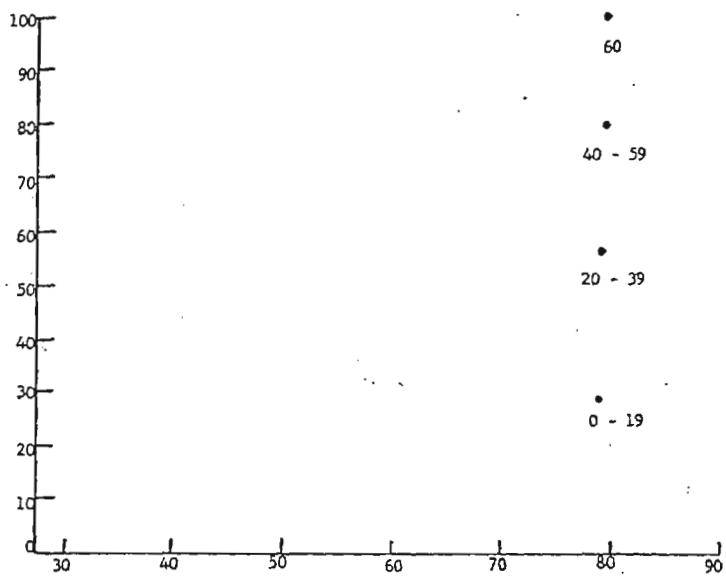


FIGURE 14.2.0

PORT ORFORD POPULATION

COMPOSITION BY AGE GROUP

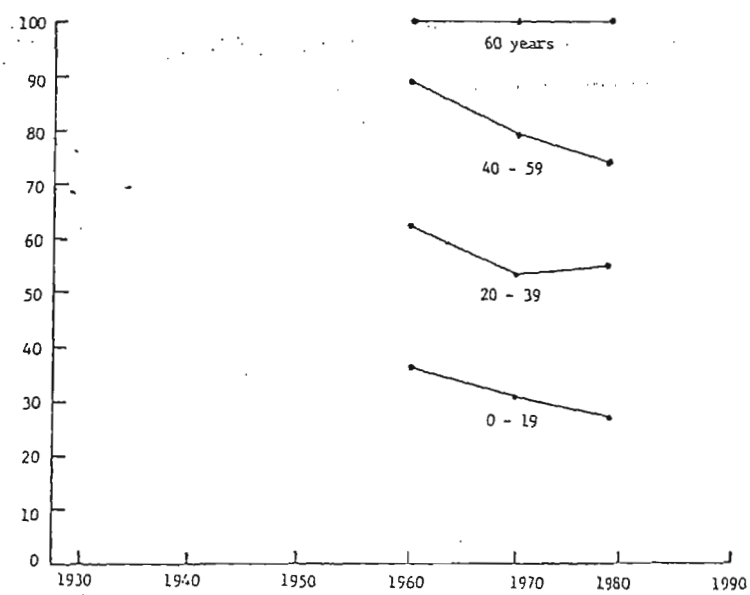


FIGURE 14.2P

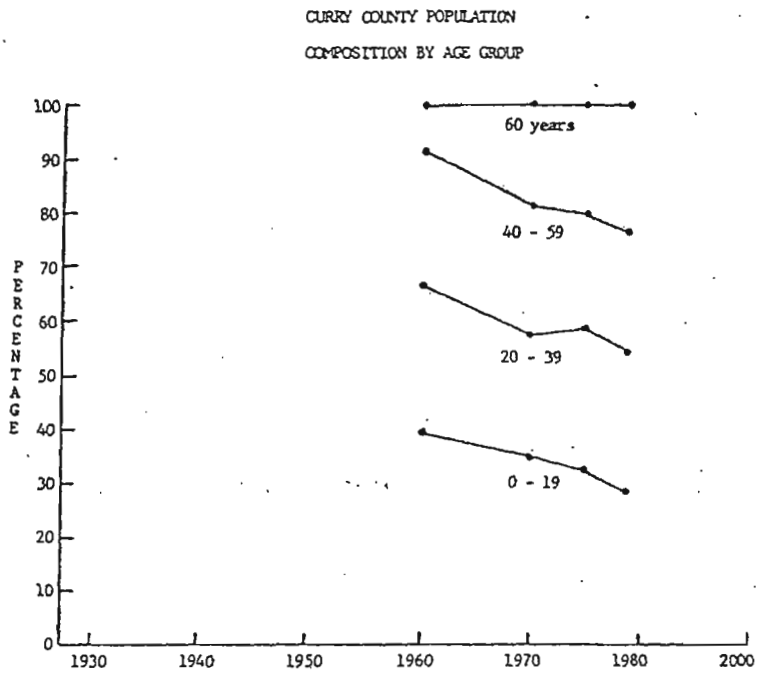
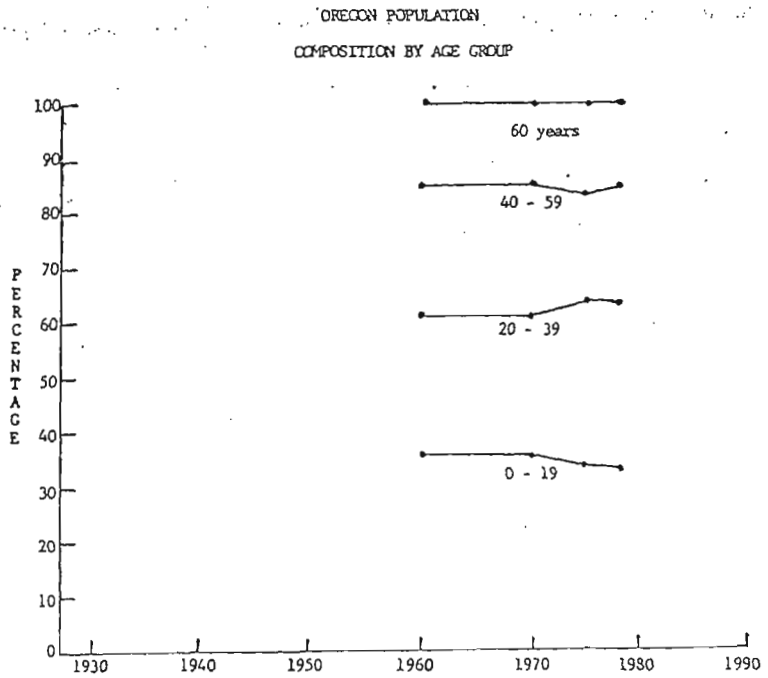


FIGURE 14.2Q



14.2.7 Summary and Population Projection

The population of Curry County is growing at a faster pace than Oregon and the United States.

Most of the county's population growth between 1970 and 1979 was due to in-migration rather than natural increase (i.e. more births than deaths).

The population of the northern part of the county is growing at a low rate; the central area is growing moderately; and the southern area is increasing at a rapid rate.

Almost two-thirds of the people live outside the incorporated cities. Principal growth is taking place in those unincorporated areas, particularly in the Harbor area south of Brookings.

Curry County presently has a population of 16,992 persons. Various long term projections can be made from the historic population data as shown in Figure 14.2H. Curry County has chosen the 1975-78 growth rate as its projection to indicate a total county population of 33,000 in the year 2000. Perhaps 55 to 60 percent of that population will live in the southern Brookings area, about 30 percent in the Gold Beach area, and about 10 to 15 percent in the northern Port Orford area.

Average household size in Curry County is decreasing, and is about the same as that for Oregon and smaller than for the entire United States.

The population structure of Curry County is older than that of Oregon and the United States. There are continued notable decreases in the proportions of younger people (0-19 years), slight decreases in the working age groups (20-59 years), and marked increases in the retiree age groups (60 years or older). These changes are occuring in all sections of the county, but particularly in the southern area.

14.3 POPULATION PROJECTIONS OF INCORPORATED CITIES

Each of the cities in Curry County has projected its population growth over the planning period in determining lands needed for urbanization.

The City of Port Orford presently has a population of 1061 persons.[1] Port Orford has an acknowledged urban growth boundary of approximately 3800 acres, which "...is designed to provide sufficient land to insure choices in the market place for various uses for a future population of 1200-1500 people."[2] The City of Port Orford and its UGB are projected to have a population of 2561 persons in the year 2000. There are presently about 200 dwelling units in the urban growth area representing about 500 persons.

The City of Gold Beach has a present population of 1,650, and is projecting a future population of approximately 2200. There are presently 257 dwelling units in the urban growth area, which at 2.4 persons per dwelling unit represents 617 person. Extrapolating the recent growth rate in Gold Beach Census District, 1.05% annually, to the urban growth area, we can project an additional 143 persons. The City of Gold Beach and its UGB are projected to have a total of 2960 persons in the year 2000.[3]

The City of Brookings has a current population of 3384 persons and urban growth area has a present population of 1968. Brookings is projecting a population of 5965 for the city, and 3555 for the urban growth area for a total projected population of 9520.[4]

14.4 URBAN GROWTH BOUNDARIES

Curry County has mutually adopted urban growth boundaries with Port Orford, Gold Beach and Brookings, along with management agreements governing land use actions within those areas. Further information regarding the urban growth areas is found in the individual city plans. Curry County has acknowledged the boundaries and has accounted for these lands in its assessment of housing needs to the year 2000.

14.5 RURAL COMMUNITIES

There are several areas of the county which have the characteristics of communities but are not incorporated as cities. Generally these areas have a higher level of public facilities including public water service, fire protection, schools, libraries, churches and other public buildings which are located in a recognizable central commercial core area. Residential development in these areas is also at least partially urban or quasi-urban in nature with numerous lots being one acre or less in size. These areas also have well developed network of public streets and roads to provide access to the residential and commercial uses located in the community. Detailed discussion of each of the rural communities described below is given in the Exceptions Document part of the comprehensive plan.

14.5.1 COMMUNITY OF LANGLOIS

The community of Langlois is an unincorporated residential, commercial, and industrial area lying in the north end of the county approximately 13 miles north of the City of Port Orford. The area is predominantly residential with commercial uses being located along Highway 101, which bisects the community. There is also a sawmill located in the central part of Langlois.

Langlois, being unincorporated, has no corporate boundary, however, it is served by a water district and a fire district which have separate boundaries that encompass the separate service areas. The boundary defined for this community includes about 342 acres of land. This boundary also effectively separates the urban uses in the area from the surrounding agricultural and forestry uses.

The community of Langlois has public water service, fire protection, and schools which are provided by special districts. Police protection and street maintenance are provided by Curry County and the State of Oregon.

The Langlois Rural Water District provides the community with public water service. The water system consists of an intake and pump located on Floras Creek, a storage tank filtration plant, and distribution system. This system has a storage capacity of about 100,000 gallons. Presently, the system has 87 customers with 93 hook-ups.

The Langlois Rural Fire District serves the community from a fire station located on First Street near the center of Langlois. The fire district is a volunteer fire department with approximately 15 volunteers. The insurance classification rating is 9, similar to the other small rural fire districts in the county.

A wide range of commercial uses are found within Langlois including a market, feed store, several shops, restaurants, and a service station. These sites are primarily located on U.S. Highway 101 which bisects the community. The Tucker sawmill is located in the center of the community and is the only active mill in the northern part of the county.

14.5.2 COMMUNITY OF OPHIR

The Community of Ophir is an unincorporated residential, commercial, and industrial area lying along the coast just north of the Nesika Beach Community, and about nine miles north of Gold Beach. The community is primarily residential, with the Ophir store, post office, grade school, and Hank's sawmill being located along Ophir Road, which runs northerly through the community area.

Ophir is served by a public water district and a fire district which have separate boundaries that encompass separate service areas that are much larger than the Ophir Rural Community defined by this plan. The boundary for this community includes the most intensively developed lands along both sides of Ophir Road between Nesika Beach and Euchre Creek. Also included in the community boundary are the McNelis-Whipper subdivision and the Surf Hills Subdivision. This line effectively separates urban and quasi-urban uses in the area from the neighboring forest lands and defines a community area of about 555 acres.

Ophir community area has water service, fire protection, and schools which are provided by special districts. Police protection and street maintenance are provided by Curry County.

The Ophir Water District provides the community with public water service through an agreement with the Nesika Beach Water District. The system consists of a 200,000 gallon storage tank and distribution system. Presently the system has about 65 users.

The Ophir Rural Fire Protection District serves the community from a fire station located on Nesika Beach Road near the center of the community of Nesika Beach.

A limited number of commercial uses are found within the community including a store, post office, and RV park. In addition, a small sawmill and the Ophir Elementary School are within the area.

14.5.3 COMMUNITY OF NESIKA BEACH

The community of Nesika Beach is an unincorporated residential, industrial area lying between the coast and U.S. 101 about 7 miles north of the City of Gold Beach. The community has a commercial core with stores located along Nesika Beach Road, the main access road. There is a large vacant parcel located in the center of the community area which was a former lumber mill site. Residential uses are located along the shoreline to the west of Nesika Beach Road and on both sides of U.S. 101.

The community of Nesika Beach, being unincorporated, has no corporate boundary. However, the community is served by a water district and fire district which have separate boundaries that encompass the separate service areas that are larger than the Nesika Beach rural Community as defined by this plan. The boundary of this community includes about 321 acres. This boundary also effectively separates the urban and quasi-urban uses in the area from the surrounding forestry uses to the south and east.

The community of Nesika Beach has public water service, fire protection, and schools which are provided by special districts. Police protection and street maintenance are provided by Curry County.

The Nesika Beach Rural Water District provides the community with public water service. The water system consists of an intake and pump located on the Rogue River above the head of tide, a storage tank, and distribution system. This system has a storage capacity of about 200,000 gallons and a 100,000 gal/day supply capacity. In 1979 the system had about 156 users with some being located outside the district boundary along the supply line from the Rogue River. The pumps and supply line for the Nesika Beach Water District also supply the Ophir Rural Water District which as distribution lines extending about 3.5 miles to the north along Highway 101 from the community of Nesika Beach.

The Ophir Rural Fire Protection District serves the community from a fire station located on Nesika Beach Road near the center of the community of Nesika Beach. The fire district is a volunteer fire department with about 15

volunteers. The district did not report an insurance classification, but it is probably at a level similar to the other small rural fire districts.

14.5.4 COMMUNITY OF AGNESS

The community of Agness is a unincorporated residential and commercial area at the junction of the Rogue and Illinois River, approximately 30 miles east of Gold Beach. The Agness community area is recognized in both the Oregon State Scenic Waterways Regulations and the Federal Wild and Scenic River Systems.

The Agness community boundary is defined as a enclave of developed private land located along the Rogue River at the historic community of Agness which is surrounded by the Siskiyou National Forest. This includes about 491 acres of land and effectively separates an area that is developed with residential and resort commercial uses from the surrounding national forest land.

The Agness area does not have a community water or sewer available. Fire protection is provided by the Agness-Illahe Volunteer Fire Department. The station is located about one mile up the river at Coon Rock Bridge. This location was chosen as being the most central in terms of road access, there being no bridge over the Rogue within the community boundary. A public school is located in the central part of the community. Police protection is provided by Curry County, and road maintenance is provided by Curry County and the U.S. Forest Service.

Commercial uses within the Agness community are primarily related to serving the recreational tourist and include several tourist lodges, a store and service station and recreational vehicle park. Lands surrounding the commercial core of the community are in rural residential use with both seasonal use and permanent dwellings.

14.6 RURAL LANDS EXCEPTIONS

Curry County has prepared an Exceptions Document which analyzes all rural lands outside of urban growth areas in terms of the Statewide Planning Goal 2 requirements for exceptions to other Goals which is part of this comprehensive plan. The Exceptions Document contains the findings which document how certain lands were either physically developed or irrevocably
committed to development and thereby, an exception to the requirements of the resource goals. Through this process the county has identified a total of 8252 acres of rural lands with dwelling units which are located within 75 rural exception areas that have been defined throughout the county.

14.7 ZONING OF RURAL LANDS

Rural lands described in the comprehensive plan fall into two district categories, rural communities and rural exception areas, which delineate zoning. Lands which have been defined as being located within one of the four rural communities have been variously zoned for Rural Industrial (RI), Rural Commercial (RC), Rural Resort Commercial (RRC), and Rural Community Residential (RCR) use. Lands included within the various rural land exception areas have been zoned for Rural Residential (RR) use. The Rural Community Residential (RCR) zone has minimum lot sizes of 1, 2.5, 5, and 10 acres. The RCR and 2.5 acre minimum lot size zones were only applied to those lands which are physically developed or are irrevocably committed to urban use and are thereby an exception to Goal 14. The RCR 5 and 10 acre minimum lot size zones were applied to areas within the rural communities which are physically developed or irrevocably committed to residential development of a more rural nature so that an exception to Goal 14 was not taken under the Goal 2 process. The Rural Residential (RR) zone has minimum lot sizes of 5 and 10 acres which have been applied to the various rural land exception areas based upon the physical development, degree of parcelization, and other factors existing in each particular area. The Rural Industrial (RI), Rural Commercial (RC) and Rural Resort Commercial (RRC) zones have also been applied to many isolated individual parcels of land located throughout the county which are physically developed with industrial or commercial uses at present.

14.8 PLAN POLICIES REGARDING URBANIZATION

1. Curry County defines "rural uses" as those uses which are located outside of urban growth boundaries including non-urban agriculture, forestry, open space, sparse settlement, small farms or acreage homesites with no or hardly any public services.

2. Curry County defines "urban uses" as those which are high intensity residential, commercial or industrial uses located inside urban growth boundaries, or outside urban growth boundaries where an exception to Goal 14 has been justified.

3. Curry County recognizes the urban growth boundaries of Port Orford, Gold Beach and Brookings and the mutually adopted Management Agreements for these areas.

4. The county will work to coordinate with the respective cities with regard to land use decisions affecting the urban growth areas.

5. The county will cooperate with the respective cities to review the established urban growth boundaries at the time of periodic review of the comprehensive plan. Such review will be based upon consideration of the following:

   a) demonstrated need to accommodate long-range urban population growth requirements;
   b) need for housing, employment opportunities, and livability;
   c) orderly and economic provision for public facilities and services;
   d) maximum efficiency of land uses within and on the fringe of the existing urban area;
   e) environmental, energy, economic and social consequences;
   f) retention of agricultural land, with class I being the highest priority for retention and class VI the lowest;

g) compatibility of the proposed urban uses with nearby agricultural activities.

6. Curry County recognizes the rural communities of the county as an additional type of development in the county and has determined boundaries for these communities based on the existing land use in the community and the requirements for a Goal 2 exception to Goal 14.

7. Curry County recognizes rural lands in the county and seeks to retain the rural character of these lands by limiting the development of these lands through rural zoning which will retain the rural character of these areas as reflected in the existing lot size pattern.

8. Curry County has zoned the lands located within the various urban growth areas for urban use and these urban land use zones shall not be applied to lands lying outside of a defined urban growth boundary.

9. Curry County has zoned lands located within the rural communities for either urban use or rural use based on Goal 2 exceptions to Goal 14 for the areas zoned for urban uses; the urban use zones Rural Industrial (RI), Rural Commercial (RC), Rural Resort Commercial (RRC) and Rural Community Residential (RCR-1 and RCR-2.5) shall not be applied to areas presently zoned for rural use unless a Goal 14 exception is approved by the county.

10. Curry County has zoned lands located within the various rural land exception areas for Rural Residential (RR-5, RR-10) use which limits rural residential development to dwellings on existing parcels and the development of new parcels at a density of 5 acre or 10 acre minimum lot sizes.

11. Curry County recognizes that rural residential development in the Floras Lake area (Rural Lands Exception Areas 1 and 2) are unique because of the

existence of the Pacific City Town Plats, therefore, development in these exception areas will be limited to one dwelling unit per contiguous ownership of record (all contiguous platted lots in single ownership) and further divisions of land will be limited to a 5 acre minimum lot size.

12. Curry County will limit commercial uses on rural lands to no more than a total of three separate commercial uses on a single parcel zoned for such use; new commercial uses shall be no greater than 2500 square feet in area allowed only upon a finding that they are appropriate for, and limited to the needs and requirements of the rural area in which they are located; new commercial uses in the Rural Resort Commercial zone shall be limited to hotels, motels, and lodges no greater than 5000 square feet in size and no more than 40 lodging units; and the county will not allow the rezoning of land to permit more than a total of three separate commercial uses within a single rural exception area excluding rural communities.

13. The establishment of new rural industrial uses not legally established prior to August 12, 1986 will require a reasons exception to Statewide Planning Goals 3 and/or 4, 11, and 14 and other Goals applicable to the specific site.

CHAPTER 15. COASTAL SHORELANDS, BEACHES AND DUNE AREAS

15.1 INTRODUCTION

Coastal shorelands and beaches are an important aspect of Curry County because the county has about 85 miles of shoreline which is almost one third of the entire Oregon coast. The coastal shorelands of the county are predominantly rural lands with very little development. The rural nautre of the shorelands is partly the result of public ownership of much of the county shoreline.

Physiographically the county shoreline varies from sand beach with coastal dunes to rugged rocky shoreline with high sea cliffs. Generally the shoreline is a narrow sand beach that has a sea cliff immediately inland of the backshore of the beach. There are a few places along the shoreline where coastal dunes have developed and extend short distances along the coast or inland from the beach. Coastal dunes in Curry County are limited in extent and have not developed into dunefields such as are found further north along the Oregon coast.

Goals 17 and 18 are concerned with coastal shorelines and beaches and dunes. Goal 17 has as its intent "to conserve, protect and where appropriate develop and where appropriate restore the resources and benefits of all coastal shorelands."[1] The goal also recognizes the value of shorelands for protection and maintenance of water quality, fish and wildlife habitat, water dependent uses, economic resources, recreation and asthetics. Goal 18 has as its intent "to conserve, protect, where appropriate develop and where appropriate restore the resources and benefits of coastal beach and dune areas."[1] An additional requirement of Goal 18 is "to reduce the hazard to human life and property from natural or man induced actions associated with these areas."

The comprehensive plan must inventory the following things with regard to coastal shorelines:

1. Hazard areas including a) areas whose use may result in significant hydraulic alteration of other lands or water bodies; b) areas of geologic instability adjacent to shorelines, and c) the 100 year flood plain.

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[1] LCDC, (1978)

2. Existing land uses and ownership patterns, economic resources, development needs, public facilities, topography, hydrography and similar information affecting shorelayds.

3. Areas of scenic importance.

4. Coastal shoreland and wetland habitats.

5. Areas of recreational importance.

6. Areas of riparian vegetation.

7. Sedimentation sources.

8. Areas of public access.

9. Areas of archeological and historical interest.

10. Coastal headlands.

11. Beach and dune areas.

The above items must be identified within the coastal shorelands planning area as specified under Goal 17. The goal further defines the coastal shorelands planning area as "all lands west of the Oregon Coast Highway as described in ORS 366.235 and all lands within an area defined by a line measured horizontally (a) 1000 feet from the shoreline of estuaries and (2) 500 feet from the shoreline of coastal lakes."[1] Lands lying within the coastal shorelands planning area are to be inventoried and considered in the planning process in order to identify coastal shorelands and to establish policies and uses for coastal shorelands.

15.2 DEFINITION OF COASTAL SHORELANDS

Goal 17 defines coastal shorelands as land contiguous with the ocean, estuaries and coastal lakes. It further states that the extent of shorelands shall include at least:

1) lands which are directly affected by the hydraulic actions of the coastal water body;

2) adjacent areas of geologic instability'

3) areas of vegetation which stabilize the shoreline;

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[1] LCDC ,(1978)

4) significant shoreland and wetland biological habitats;

5) areas necessary for water-dependent and water-related use;

6) areas of exceptional aesthetic or scenic quality; and

7) coastal headlands.

Therefore the comprehensive plan must designate a coastal shorelands boundary within the coastal planning area defined by the goal in order to adequately define coastal shorelands. Curry County utilized a coastal planning area that included all lands west of U.S. Highway 101 (Oregon Coast Highway) in its inventory process. Lands east of U.S. 101 adjacent to the Rogue River and Chetco River estuary were also inventoried as part of the coastal shorelands planning area.

Inventories of the information required by the goal were prepared and mapped on the county base map (see inventory maps for Coastal Shorelands, Natural Hazards, Wildlife Resources, Cultural Resources, and Recreational Resources. These maps were then utilized in preparing a map of coastal shorelands in Curry County.

15.3 COASTAL SHORELANDS BOUNDARY

The location of the coastal shorelands boundary is shown on the Coastal Shorelands inventory map (see Comprehensive Plan Inventory Atlas). Lands to the west of this line are considered to be coastal shorelands and lands to the east of the boundary are not shorelands. Those areas considered to be coastal shorelands have land use limitations defined by Goal 17.

The coastal shoreland boundary defined by the Curry County Comprehensive Plan generally parallels the Oregon Coast Highway in the southern two-thirds of the county except in the larger estuaries where the boundary extends upstream to the head of tide. Where the coastal shorelands boundary is defined as the top of the seacliff; however, it will be modified on a case by case basis to be a specific line as defined by analysis of the cliff erosion geological hazard as required under the "Development in Areas of Geologic Hazards" (Section 2.202) of the Zoning Ordinance.

A specific description of the coastal shorelands boundary in Curry County is provided below and is shown on the "Coastal Shorelands" inventory map.

Segment 1 - Coos County line to Floras Lake Outlet:

This segment includes the Floras Creek-New River minor estuary and associated wetlands as well as the

coastal dune field lying between New River and the ocean. The shoreland boundary in this segment follows the inland extent of flooding and is delineated by the 100 year floodplain.

Segment 2 - Floras Lake Outlet to Sixes River:

This segment includes Floras Lake, a coastal lake, and the cliffed shoreline which extends south from the lake to the mouth of Sixes River. Most of the land included in this segment is included within the Floras Lake State Park and is basically an undeveloped natural area. The shorelands boundary in this area is defined as extending a uniform distance of 100 feet horizontally inland from the ordinary high water mark of Floras Lake for the coastal lake part of the segment. For the remainder of this segment which has a seacliffed boundary shoreline, the boundary is defined as following the top of the cliff. The sand spit which separates Floras Lake from the ocean is included within the shoreline boundary as well as any wetland areas which may extend inland beyond the 100 foot boundary distance.

Segment 3 - Sixes River Estuary.

The shoreland boundary in the Sixes River Estuary is defined as being the 100 year floodplain boundary extending from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 4 - Sixes River to Elk River

This segment includes a short section of cliffed shoreline around Cape Blanco which is a prominent coastal headland in northern Curry County. Land in the vicinity of Cape Blanco is included within Cape Blanco State Park and other lands are privately owned agricultural lands wihch are predominantly used to pasture sheep and cattle. The shoreland boundary in this segment is defined as following the top of the cliff.

Segment 5 - Elk River Estuary

The shoreland boundary in the Elk River Estuary is defined as being the 100 year flood plain boundary extending from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 6 - Elk River to City of Port Orford

This segment is a short segment of ocean bluff and sand beach which becomes a sand spit separating Garrison Lake from the ocean. Lands in this segment are privately owned with the exception of the Garrison Beach State Park located just north of Garrison Lake. The shoreline boundary in this segment is defined as following the top of the cliff to the northerly end of the Lake Garrison spit; the coastal shoreline boundary in this part of the segment is defined as being a line located 100 feet inland from jean high tide.

Segment 7 - City of Port Orford

The coastal shoreland boundary within the City of Port Orford is defined by the City of Port Orford Comprehensive Plan.

Segment 8 - City of Port Orford to Euchre Creek

The coastal shoreland boundary is a cliffed shoreline which in places drops precipitiously into the ocean. This segment includes Humbug Mountain which is a prominent headland located about four miles south of the City of Port Orford. Other large rocks are also located at the shoreline in this segment (Lookout Rock and Sisters Rocks). Land within this segment is partially public land (Humbug State Park) and private ownerships which are in agricultural use. The coastal shoreland boundary in this segment is defined as following the top of the cliff except at the sand bar located at the mouth of Myrtle Creek where it is defined at a line located 100 feet inland from mean high tide.

Segment 9 - Euchre Creek Estuary

The shoreland boundary in the Euchre Creek Estuary is defined as being the 100 year flood plain boundary extending from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 10 - Euchre Creek to Rogue River

Most of the coastal shoreland from Euchre Creek to the Rogue River is a cliffed shoreline at the edge of a coastal terrace. The extreme northerly end and southerly ends of this segment are small dune areas that lie inland from the beach. Lands in this segment of coastal shoreland are mostly in private ownership which include the Ophir and Nesika Beacn Rural Community areas. The coastal shoreland boundary in this

segment is defined as being at U.S. 101 from the mouth of Euchre Creek to the Nesika Beach Community area boundary. The boundary is then defined as following the top of the cliff south to the City of Gold Beach Urban Growth Boundary. Within the Gold Beach UGB the shoreline boundary is defined as the inland limit of the foredune that parallels the beach or a line located 100 feet inland from mean high tide where no foredune is present.

Segment 11 - Rogue River Estuary

The shoreland boundary in the Rogue River Estuary is defined as being the 100 year flood plain boundary from the mouth of the river upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 12 - City of Gold Beach

The coastal shoreland boundary within the City of Gold Beach is defined by the City of Gold Beach Comprehensive Plan.

Segment 13 - Hunter Creek Estuary

The coastal shoreland boundary from the City of Gold Beach to the Hunter Creek Estuary and within the Hunter Creek Estuary is defined as being the 100 year flood plain boundary or the ocean flooding boundary, as appropriate upstream to the head of tide. For further information see the Esurarine Resources element of the comprehensive plan.

Segment 14 - Hunter Creek to Pistol River

This segment is mostly cliffed shoreline except in the northernmost part and from Myers Creek to Pistol River in the southern part of the segment. Lands in this segment are partly public ownership as Cape Sebastian State Park and Buena Vista State Wayside. Other lands are privately owned and are either vacant resource lands or are committed lands in resource use. The shoreland boundary in this segment is defined as U.S. 101 from Hunter Creek to the southerly end of the Buena Vista State Wayside and then is defined as following the top of the cliff southerly to Myers Creek. From Myers Creek south to Pistol River the boundary is defined as U.S. Highway 101.

Segment 15 - Pistol River Estuary

The shoreland boundary in the Pistol River Estuary is defined as being the 100 year flood plain boundary extending upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 16 - Pistol River to the City of Brookings

This segment of shoreland is cliffed shoreline except for that area immediately south of the mouth of Pistol River which is a coastal dune field. This area includes the Crook Point headland and Boardman State Park which comprises most of the shoreland of this segment. The shoreland boundary in this segment is defined as the inland limit of the active foredunes in the Pistol River dunefield and the top of the cliff in the seacliff shoreline form Crook Point to Boardman State Park. The coastal shoreland boundary is defined as U.S.101 within Boardman State Park due to the exceptional scenic quality of the shoreline west of U.S. 101 in this area. The shoreline boundary from the southern boundary of Boardman State Park to the City of Brookings is defined as following the top of the cliff.

Segment 17 - City of Brookings

The coastal shoreland boundary within the city of Brookings is defined by the Brookings Comprehensive Plan.

Segment 18 - Chetco River Estuary

The shoreland boundary in the Chetco River Estuary is defined as being the 100 year floodplain boundary extending upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 19 Chetco River to Winchuck River

This segment of shoreland is cliffed shoreline which is almost entirely in private ownerships which are developed with residential uses. The shoreline boundary is defined as following the top of the cliff.

Segment 20 - Winchuck River Estuary

The shoreland boundary in the Winchuck River Estuary is defined as being the 100 year floodplain boundary extending upstream to the head of tide. For further information see the Estuarine Resources element of the comprehensive plan.

Segment 21 - Winchuck River to the California Stateline

This short segment of shoreland is in private ownership and is a lowland area west of U.S. Highway 101. The shoreland boundary is defined as the ocean flooding boundary.

The boundary as defined above effectively separates the coastal shorelands of the county from other lands as required under Goal 17. Those lands lying to the west of the boundary are the lands which are affected by the hydraulic action of the ocean or rivers and streams entering the ocean. The boundary also includes all areas subject to ocean flooding or erosion by the ocean which could be a natural hazard. All areas of coastal wetlands, coastal riparian vegetation, and significant coastal wildlife habitat have been included within the coastal shorelands area. Therefore the coastal shorelands areas includes all those lands which must be considered under Goal 17 and be subject to the requirements of the goal.

15.4 RESOURCES OF THE COASTAL SHORELANDS

The coastal shorelands of Curry County have many of the resources wihch Goal 17 identifies as being of significance and require consideration in the comprehensive plan. Those resources which have the greatest importance to the county are 1) areas of potential economic development along shorelands which have a water dependent need; 2) areas of scenic importance; 3) areas of coastal shoreland and wetland habitat; 4) areas of recreational importance including public access; 5) areas of archeological and historical sites; and 6) coastal headlands.

15.4.1 Areas of Existing and Potential Economic Development

There are several areas in Curry County which have existing commercial development and potential for future development that is dependent upon a coastal location. The existing commercial development in the coastal shorelands area outside of community areas and city urban growth boundaries largely consists of rural commercial uses that are related to tourism. Table 15.4.A lists the existing commercial uses on rural lands that are within the coastal shorelands boundary.

Other existing commercial development within the coastal shorelands boundary is found in the community areas defined by the comprehensive plan and also within the urban growth boundaries of the three incorporated cities. The rural communities of Ophir and Nesika Beach lie within the coastal shoreland boundary and have existing commercial and residential development.

TABLE 15.4.A

Name	Location	Acreage	Use
Arizona Beach Campground	34-14-19 & 20	92 ac.	Private Campground
Prehistoric Gardens	34-13-19	64 ac.	Tourist Attraction
Rainbow Rock Planned Unit Development	40-14-26	28 ac.	Commercial Residential Development
Crissy Airport	41-13-26	39 ac.	Vacant industrial site - emergency landing field.

The rural community of Ophir has part of its area within the coastal shoreland boundary, however, that part of the community is undeveloped and mostly in public ownership so that there are no existing or potential commercial development sites on coastal shorelands. (See Section 14.5.2).

The rural community of Nesika Beach has part of its area within the coastal shorelands boundary. Those lands within the community area which are in the shoreland boundary are those residential and commercial parcels adjacent to the ocean. These parcels lie at the top of an ocean sea cliff and all development of the parcels has occurred outside the ocean shoreland area.

Most lands within the coastal shoreline boundary which are adjacent to the shoreline and could have potential for commercial or industrial water-dependent water-related use are located within the urban growth boundaries of the cities of Port Orford, Gold Beach and Brookings. These areas are located at or near the existing ports or with the estuaries. They are mostly areas or sites located adjacent to the dredged channels which provide access to the water and ocean and can serve the commercial fishing industry. A more complete discussion of these sites and their potential is given in the comprehensive plans for the cities.

15.4.2 Wetlands and Areas of Riparian Vegetation.

The coastal shorelands provide an ideal habitat for many species of animals. Wetlands and shorelines provide abundant food, while also providing riparian vegetation

for nesting, escape and resting cover. Estuaries and rivers provide a food and cover source, and also provide a constant source of fresh water. Curry County has inventoried these lands as part of its Goal 5 Wildlife Resource Inventory. The specific location of these habitat areas and riparian vegetation are shown on the wildlife and the estuary inventory maps and are discussed in the Estuarine Resources element of the plan.

Curry County also has numerous nonestuarine coastal streams which are either too small or are too steep in gradient to have an estuary; however, these streams have extensive riparian vegetation which provides habitat value.

There are also several specific sites of unique ecological and scientific significance which are located within the shorelands boundary. These sites were identified as part of the comprehensive plan inventory and discussed in detail in Chapter 5 (Section 5.6 and Natural Resources Document). The specific sites which are located totally or partially within the coastal shorelands boundary are as follows:

Site No.	Name	Location
Bot. 1	Blacklock Pigmy Forest	Floras Lake State Park
Bot. 9	Euchre Creek Coast Forest	North of Euchre Creek
Bot. 11	South Coast Herbland	South of Euchre Creek
Bot. 13	Nesika Beach Old Growth Forest	South of Nesika Beach
Bot. 16	Otter Point Wayside	South of Nesika Beach

15.4.3 Wildlife Areas

There are several areas in the coastal shorelands which have significance as wildlife habitat and are identified as part of the wildlife resource inventory (see Wildlife Resource Inventory Map). The most significant of the wildlife areas in the coastal shoreland are those that provide habitat for waterfowl and other coastal birds. Curry County has identified these areas as part of its Goal 5 wildlife resource inventory. The inventory identifies the coastal habitat areas for the following birds: 1) snowy plover, 2) brown pelican, 3) perigrine falcon, 4) great blue heron, and 5) band tailed pigeon.

In addition, the inventory also shows the location of wetland areas which are important water-fowl habitat. These wetlands are the flood plain areas of Floras Creek located to the west of Langlois; the Floras Lake area; the Garrison Lake area and the Euchre Creek estuary area. All of these areas with the exception of Garrison Lake, are rural lands essentially in their natural state with the only utilization being for agricultural purposes.

Other wildlife areas typical of coastal shorelands are the anadromous fish streams and estuary water areas. The anadromous fish streams and rivers are important habitat areas of the coastal shorelands which are inventoried as part of the Goal 5 requirements (see Wildlife Inventory Map). Coastal shorelands include the mouths of all anadromous fish streams which are critical to the habitat of the whole stream because they control the access of the fish to the stream. Virtually all of the anadromous fish streams have their mouths in rural areas where there is little or no alteration from the natural state. The Rogue and Chetco Rivers are important anadromous fish drainage basins which have had extensive alteration in the coastal shoreland area. The extent of this alteration and its impact on the fish is discussed in the estuary plan (see Chapter 16).

The coastal shoreland area is also habitat to the various types of mammal wildlife found in the county. However, due to the concentration of populations and developmental uses in the coastal shorelands area, the habitat for big game has been impacted to the extent that it is not considered as important as the inland parts of the county. Other mammals such as fur-bearers are also found in the coastal shorelands and utilize the same wetland habitat as water fowl and non-game birds.

15.4.4 Areas of Scenic Quality

The coastline of Curry County has many spectacular view areas especially with regard to the coastal shorelands. Those areas of special scenic quality along the coast are indicated on the Coastal Shorelands Inventory Map and include the rocky shoreline from north of Brookings to Cape Sebastian. Other scenic areas include coastal vistas at Sisters Rocks, Humbug State Park, and Cape Blanco. Highway 101, the arterial highway flooows the shoreline for most of the distance from Brookings to Port Orford where it provides excellent views of the coastal scenery from vehicle pull-outs and wayside trails (see Coastal Shorelands Inventory Map).

The scenic quality of the coastal shorelands is protected through most of the county shoreline length by virtue of being in public ownership and in a protected status as state parks. Various state parks (Harris Beach, Boardman, Cape Sebastian, Humbug, Cape Blanco, and Floras Lake) include approximately 27 miles of the total 85 miles of county shoreline. In addition, the state controls many more miles of shoreland as highway right-of-way and has developed coastal access at the Winchuck River, McVay Rock, Pistol River, Otter Point, Ophir, and Garrison Beach. Much of the remainder of the county coastal shoreland is rural land in agricultural use and as such its scenic quality is not negatively impacted.

15.4.5 Coastal Headlands

There are seven identified coastal headlands in Curry County (see Coastal Shorelands Inventory Map). These headlands are prominant points and elevated mountain masses which protrude into the ocean with dramatic scenic impact. Those headlands identified in Curry County are:

1. Cape Blanco - located about 6 miles north of Port Orford and has the distinguishing geographic feature of being the most westerly point of the 48 contiguous states. It is also the site of the Cape Blanco lighthouse and is included in a state park.

2. Port Orford Heads - located at the City of Port Orford, it is the headland that provides shelter for the port and city of Port Orford. The Port Orford Heads is the site of a former Coast Guard station but is now a state park wayside.

3. Humbug Mountain - located about four miles south of the City of Port Orford is a prominant mountain which extends into the ocean with abrupt rocky cliffs on its seaward face. The mountain is presently included in a state park.

4. Cape Sebastian - located about 4 miles south of the City of Gold Beach and is a steep, rocky, monolith with trees along its crest. The headland is included in a state park of the same name.

5. Crook Point - located just south of the mouth of Pistol River and is a flat somewhat barren headland that is partly covered by stabilized dunes. The northern side of Crook Point is in state ownership, whereas the southern side of the point is in private ownership as part of a large ranch.

6. Cape Ferrelo - located about 3 miles north of Brookings is a gently rolling headland covered with grass which is included in the Boardman State Park.

7. Chetco Point - is a rocky point included within the City of Brookings.

The coastal headlands of Curry County are notable for their scenic value since they are generally the prominant features of the coastal vistas. These headland sites are also of recreational value because many are developed as recreational sites with hiking trails, beach access points, camping and picnic facilities. Crook Point in the only rural coastal headland that is not included within a state park, however, it is not accessible to the public because it is in agricultural use as part of the Crook Ranch. The Port Orford Heads and Chetco Point are discussed in greater detail in the comprehensive plans for the Cities of Port Orford and Brookings.

15.4.6 Other Resources.

Goal 17 requires consideration of other resources of the coastal shorelands which have been previously discussed under other topics of the comprehensive plan. Areas of archeological and historical significance were considered under section 5.9 as part of open space and natural resources. Areas of recreational importance, including beach access points, were discussed under section 8.4. Certain aspects of water resources in the coastal shorelands area was discussed in Chapter 12 and and economic development in the county was discussed in Chapter 9 of the comprehensive plan. Finally, all aspects of the coastal shoreland that have to do with the estuarine environments of the county are discussed in Chapter 16 of the comprehensive plan.

15.5 COASTAL SHORELAND USES

Goal 17 requires that major marshes, significant wildlife habitat, coastal headlands, exceptional aesthetic resources and historic and archaeological sites shall be protected. The goal further specifies that uses in these areas shall be consistent with the protection of natural values which include the propagation and harvesting of forest products, grazing, harvesting wild crops, and low intensity recreational uses. All such areas in Curry county are protected by virtue of being included within a state park. Those areas not within state parks are: Crook Point, and the wetlands west of Langlois which are part of large ranches that are in agricultural zoning.

The Coastal Shorelands Goal also requires the distinction between urban and rural shorelines with each type of shoreland being protected for certain uses. Curry County has identified urban shorelands as all those shoreland areas that are included within urban growth boundaries. Rural shorelands are then defined as all other shorelands in the county.

15.5.1 Urban Shorelands

Urban Shorelands in the county are located within the urban growth boundaries of the three incorporated cities. Goal 17 requires that shorelands be protected for water dependent recreational, commercial and industrial uses where they are found to be suitable for such uses. Factors which contribute to these uses are the following:

1) deep water close to shore;

2) potential for aquaculture;

3) protected areas which would require little dredging for use as marinas; and

4) potential for recreational utilization of coastal water.

Urban shorelands located within the urban growth boundaries of the three cities have a mix of residential, commercial and industrial uses. The designation of land uses and the protection of vacant shorelands in these areas is specified by the comprehensive plan of the city or the estuary plan if located adjacent to an estuary.

15.5.2 Rural Shorelands

Most of the coastal shoreland in the county is defined as rural shoreland and is in rural use for agriculture or open space. The most notable exceptions to the resource use of shoreland are at a few places where shorelands have been subdivided into small lots for residential use. This type of situation is found in the shoreland areas between the community of Nesika Beach and the Gold Beach UGB, between Boardman State Park and the Brookings UGB, and between the Brookings UGB and the Winchuck River. Most of these areas are already highly developed and irrevocably committed to non-resource use (see Committed Lands Document).

Goal 17 states that rural shorelands are appropriate for the following uses:

1) farm uses;

2) propagation and harvesting of forest products;

3) private and public water dependent recreation developments;

4) aquaculture;

5) water dependent commercial and industrial uses and water related uses only upon a finding that such uses satisfy a need which cannot be accomodated on shorelands in urban areas;

6) subdivision, major and minor partitions and other uses only upon a finding that such uses satisfy a need which cannot be accomodated at other upland locations or in urban areas.

7) single family residences on existing lots, parcels or units of land.

Most of the rural shorelands of the county have been designated for agricultural and open space use with rural commercial and residential designations being applied to areas that are committed to non-resource use. These land use designations allow uses which are deemed appropriate to rural shorelands under Goal 17.

15.6 BEACHES AND DUNES

The county shoreline has about 40 lineal miles of beach which exists in segments varying from two to six miles in length which are separated by rocky headlands. The coastal shorelands area of the county also has three small dune fields that total about 1900 acres of active and stabilized dunes.

Curry County has mapped the location of beaches and dune fields at a scale of 1 inch = 1 mile on the Coastal Shorelands Inventory map. Active dune areas are also shown on the Natural Hazards inventory map as areas subject to "wind erosion-deposition". The areas shown on the county inventory maps are essentially equivalent to areas shown as "beach", "active foredune", "recently stabilized foredune", "open dune sand", and "open dune sand conditionally stable" in the Beaches and Dunes of the Oregon Coast.[1] This inventory satisfies the basic requirements of Goal 18 for identifying these critical areas.

Statewide Planning Goal 18 requires that the comprehensive plan 1) identify beach and dune areas; and 2) establish policies and uses consistent with the provisions of the goal. The purpose of this inventory is to identify the beach and dune areas within the county and to establish goals and policies relative to these lands.

15.7 DESCRIPTION OF BEACHES

A beach is a sloping area of sand or gravel situated between the ocean and other land forms such as terraces, sea cliffs or dunes.[2] Beaches in Curry County consist of fine to medium grained sand with the material offshore generally becoming coarser grained. There are two types of beaches along the county coast: 1) drift beaches; and 2) swash beaches which have decidedly different characteristics and origins in terms of physical processes.

Drift beaches are located north and south of Cape Blanco, north and south of the Rogue River, and at the mouth of the Chetco River. These beaches are almost straight and geographically oriented at an oblique angle to the oncoming waves; also they are located near the mouths of major drainages and along stretches of easily eroded seacliffs. Drift beaches are the result of transport of sand along the coast by waves and currents. As waves impinge obliquely on the coastline, sand is transported along the coast in the breaker zone. Longshore transport along this coast is northerly in the winter and southerly in the summer in response to waves generated by the prevailing winds. Therefore, the sand on drift beaches moves up and down the coast seasonally as the local wave characteristics change. In an area such as in the vicinity of the Rogue River the longshore transport up and down the coast may exceed 1,000,000 cubic yards per year.[1] Other factors such as local topography, weather, construction of jetties, dredging etc. also have a significant effect on these beaches.

Swash, or pocket, beaches are small localized beaches located between headlands that have shorelines parallel to oncoming wave fronts. These beaches are located in many of the coves of the rocky shore headland coastline between Brookings and Crook Point and in the Humbug Mountain area. Most of these beaches range from a few hundred yards to about one half mile in length. The beach sand is generally derived from the localized erosion of the headland with sediment from streams being negligible. Sand deposits forming the beach are thin and coarser in grain size than the material found on the drift beaches. High winter storm waves can destroy swash beaches by moving the sand offshore; however, waves during milder conditions will quickly restore the beach to its former state. Swash beaches have little or no longshore transport as with drift beaches because the direction of wave approach is essentially parallel to the beach.

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1 USDA - OCCDC (1975)

2 DOGAMI (1976)

Since beaches are the coastline's primary defense against the erosive power of waves they have great significance to land use planning in the coastal shoreland area. The active beach is such a dynamic environment that man's use of the beach is largely confined to recreational and other similar transitory situations. However, the area immediately landward of the active beach whether it be sand dunes, sea cliffs or drift log accumulations, may be used for other more permanent developmental purposes depending upon the stability of the active beaches. A primary concern of beaches for planning purposes is whether the beach is stable, actively eroding, or actively accreting because any change in the location of the shoreline could result in an impact on the adjacent land.

15.7.1 Stability of Beaches

A stable beach is a beach which experienced neither a net annual loss or gain in beach material and the shoreline position is in a stable location. This definition applies to a drift beach such that the amount of sand that is moved northerly by winter waves is returned in a southerly direction by the summer waves. A swash or pocket beach is stable if the summer waves replace to the beach that sand which the winter waves have moved offshore. An eroding beach is one which experiences a net sand loss on an annual basis, resulting from continuous excessive erosion or diminishing sand supply from the natural source. This situation is most characteristic of drift beaches where dams, riprap, jetties, commercial removal, or other structures or activities can affect littoral or beach sand transport. Accreting beaches are those beaches which experience a net seaward growth due to an annual increase in sand supply. This sand accumulation is usually reflected in the development of small dunes seaward of the fordune and seaward growth of the low tide flat.

Beaches in Curry County are stable with respect to shore line position except for a few localized cases where a beach seems to be experiencing persistent erosion and accretion. The beach extending north from Blacklock Point to Floras Lake in northern Curry County appears to be undergoing erosion during the past few years.[1] This erosion is possibly due to a net northerly sand transport in that area from southerly approaching waves and the loss of sand from the beach in the Floras Lake areas as dunes develop on the Floras Lake spit. There are other small sections of beach in the county which also appear to have localized erosion but have not experienced persistent erosion for

enough years to be documented as an eroding beach. The beach just north of the Rogue River has been an accreting beach for several years.[1] This beach is an accreting beach because of the construction of the Rogue River jetty system which provides a trap for the southerly longshore transport of sand from the Otter Point-Nesika Beach area.

15.7.2 Sea Cliff Erosion

Beaches serve as the bulwark of coastal erosion protection by absorbing most of the wave energy through movement of sand on the beach and runup of water on sloping surface. Waves can cause dramatic changes in beaches to the point of actually removing all the sand to bedrock so that the waves attack the sea cliff directly. The absence of any talus accumulation at the base of a sea cliff indicates a recent episode of wave erosion. The presence of a talus slope offers some support to the sea cliff as a buttress and once it is removed, slumping or sliding of the cliff usually resumes.[1]

Seacliff landslides usually consist of small sections of the cliff face falling to the beach. This type of slumping, together with rainwash and groundwater sapping produces a slow to moderate progressive retreat of the cliff and loss of ocean front property. However, large landslides and slumps can occur and cause several acres of land to slide seaward and drop in elevation. These large landslides generally occur in areas where the geologic structure of the strata forming the cliff has seaward sloping deposits. In these cases large blocks of material move along the bedding planes of the strata which are planes of weakness. Another important factor to the generation of landslides in the presence of ground water which adds to the weight of the overbearing material and lubricates the slide plane. The last significant factor that is important to sea cliff erosion is the impact of people on sea cliffs. People climbing over the face of the cliff, cutting trails, carving graffiti into the cliff face and even digging tunnels into the cliff can accelerate the rate of erosion as well as destroy the aesthetic value of the natural feature.[1] The rate of sea cliff erosion and long term recession rates are of significance to land use planning from the standpoint of recognizing the potential hazard to shoreline uses and development. Meaningful information regarding the rate of erosion of sea cliffs is generally lacking along the Oregon coast and especially in Curry County. Comparisons of old and new aerial photographs at various places along the coast show that erosion rates range from less than 0.1 feet per year to greater that 100 feet per year based upon the

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[1] OCZMA (1979)

composition of the material forming the sea cliff.[2] Generally the harder the rock forming the sea cliff, the slower the rate of erosion and recession rate of the cliff.

15.7.3 Coastal Erosion

Curry County is a rural county with only limited development along the immediate shoreline so that the impact of coastal erosion on private structures has been insignificant. Coastal erosion, however, has caused problems with the coast highway at several places where it is located at the top of a sea cliff (Rocky Point, Ophir, Nesika Beach) or has been built onto the beach by embankment (Hunter Creek).[3] At some of these locations damage to the highway has been sufficiently severe to require bridging or other protective structures to stabilize the situation. Sea cliff and beach erosion can also have an impact on recreational uses of the coastal shoreland by destruction of sections of the Coast Trail and related view points.

Shoreline development in the past has been largely confined to Harbor, Nesika Beach and the areas in the immediate vicinity of the cities of Brookings, Gold Beach and Port Orford. Development uses in these areas have generally been located on stable sea cliffs and adjacent to accreting beaches; however, as shoreline land in these areas becomes scarce then development pressures will be placed on shorelands which could be subject to erosion. The comprehensive plan addresses this problem by identifying those shoreline segments which are potentially subject to erosion (see Coastal Shorelands Inventory Map).

15.8 DESCRIPTION OF DUNE AREAS

Much of the Oregon Coast, especially north of Coos Bay is characterized by broad sand areas along the coast ranging from one to four miles wide. These areas are typically referred to as dune fields or dune sheets because of the presence of a variety of morphological dune forms created by the wind transport of sand. The remainder of the Oregon Coast and especially south of Coos Bay lacks these large sand areas and only has localized sand deposits which have a limited selection of dune forms. Curry County, although it has the longest length of the state shoreline, also has the smallest area of active dunes. Three relatively small areas in the county have been identified as having the characteristics of a dune field: 1) Floras Lake area; 2) Euchre Creek area; and 3) Myers Creek-Crook Point area.[1]

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1 OCZMA (1979)

2 Stembridge (1975)

3 DOGAMI (1976)

The deflation plain is defined as a broad plain which develops immediately inland from the foredune and is scoured to the level of the summer water table. The deflation plain is created by wind removal of dry sand particles from the foredune; however, sand can only be removed down to the summer water table because the moisture binds sand particles together below the water table.[1] During the fall and winter seasons the deflation plain may be flooded by a higher ground water table.

Hummock dunes are interior dune forms created by the mound building activities of European beach grass landward of the deflation plain or foredune; however, these dunes generally occur as scattered hillocks rather than a linear ridge such as the foredune. Hummock dunes can either be in active or conditionally stable form depending upon the amount of vegetation on the dunes.

Stable dunes are those which possess a soil profile and can have some form of consolidation of the underlying sand. These dunes have been stabilized by vegetation long enough to form a soil in a process which may have taken a few hundred to thousands of years. Such dunes are stable so long as the soil is not disturbed and the underlying sand is not allowed to be eroded by the wind. Stable dunes are characterized by a much more diverse floral community with native herbs, shrubs and trees; which in places with a favorable environment the forest and shrub layers may be nearly impenetrable.

15.8.1 Dune Field Areas

The dune fields of Curry County have developed foredunes and transitional dune forms leading to stable dunes at the inland margin of the field. The Floras Lake dune field is a four mile long dune area with limited development in the onshore direction. This dune field consists of a foredune paralleling the beach and some conditionally stable hummocky dunes lying landward of the foredune. Onshore development of this dunefield is confined by Floras Creek and Floras Lake so that further expansion of the dune area is unlikely. The dune field is known to be the habitat of a rare plant (Phacelia argentea) and the western snowy plover which is a rare species.[1] At present this area is not subject to development pressure because of its relative isolation and inaccessibility although proposals have been made for the development of the Floras Lake spit area if a bridge could be constructed over the Floras Lake outlet.

The Euchre Creek-Nesika Beach dune area is located to the south of the mouth of Euchre Creek with a few dune forms extending toward Nesika Beach.

Generally the dune field consists of a foredune developed parallel to the shoreline along the beach south of Euchre Creek with a small deflation plain to the landward of the foredune and conditionally stable hummock dunes immediately adjacent to the coast highway. That part of the dune field extending south toward Nesika Beach is primarily a foredune. The rare plant, Phacelia argentea, is found at several locations along the beach in this area. Western snowy plover have been using this area as a habitat especially near the mouth of Euchre Creek. At present this area is vacant and in agricultural use as pasture. Development pressures will continue to be minimal because most of the area near the mouth of Euchre Creek is within the flood plain of the creek so that construction is restricted due to the presence of flooding as a natural hazard.

The Myers Creek-Crook Point dune field is the largest dune area in the county extending from south of the mouth of Myers Creek to the tip of Crook Point. That part of the dune field lying north of Pistol River is primarily a foredune which changes into conditionally stable hummock dunes and flooded deflation plain adjacent to the coast highway. South of Pistol River the dune field becomes greater in extent with much of the area between the coast and U.S. 101 being conditionally stable dunes. The transition of dune firms in this area changes from a foredune at the beach into conditionally stable hummock dunes and interdune deflation plain areas. The southernmost part of the dune field and easterly edge of the field is composed of stable dunes which are vegetated with brush and trees. The easterly edge of the dune field extends into a vegetated area on the east side of U.S. 101 (See Coastal Shorelands Inventory Map). Three rare plant species are found in this area: Phacelia argentea, Abronia umbellata, and Habenaria greenei, and the southern part of the dune filed is a good representation of the coastal plant community. Much of the dunefield is presently vacant and in recreational or agricultural use. Presently rural residential uses are located along the eastern and southern margins of the dune field and have only had minimal impact on the dunes.

15.8.2 Stability of Dunes

Except for the foredunes and the deflation plain areas in these dune fields most of the dunes are conditionally or fully stable. However, the conditionally stable dunes are stabilized with a sparse cover of a beach grass and native vegetation so that even a slight disturbance of these dunes will reactivate wind transport

of the sand. Most of the dunes in the county are not subject to development pressures and related construction so that disturbance of the area will principally result from intensive recreational uses such as ORVs. Uncontrolled recreational use could cause irrepairable damage to these fragile environments in terms of natural habitat and causing a natural hazard from wind erosion.

15.9 BEACH AND DUNE USE

The predominant use of beaches and dunes in Curry County is for recreation with much of the county shoreline being designated as state park. The following state parks are primarily oriented toward beach use: Floras Lake State Park, Cape Blanco State Park, Paradise Point Wayside, Humbug State Park, Cape Sebastian State Park, Boardman State Park, and Harris Beach State Park. The recreational uses provided by these facilities are discussed in Chapter 8. The remaining beach and dune areas in the county are in private ownership and generally in agricultural use or are presently vacant.

The recreational use which has the greatest impact on beaches and dunes is the use of off-road vehicles in these areas. ORVs have both positive and negative aspects for recreation in that use of a motorized vehicle greatly increases the range which a person can traverse and use the environment; however, negative impacts can result from disruption of the soil, vegetation, and wildlife by the motorized vehicle.

ORV use is prohibited on some beaches in Curry County by the Oregon State Highway Commission because of their status as state parks. The beaches in Harris Beach State Park and Boardman State Park are closed to vehicle traffic but other shoreline parks allow the use of ORVs and actually provide access points. Actual ORV use on beaches and dunes in Curry County is quite limited due to inaccessibility of some beaches and the few people who participate in such activities. Most recreation traffic on county beaches is pedestrian; however, a few people use 4-wheel drive vehicles to collect driftwood and other material. This activity is confined to relatively few beaches because of the lack of vehicle access points.

In northern Curry County beach access for motor vehicles is possible to the beach south of Cape Blanco from Cape Blanco State Park. The beach between Port Orford Heads and Elk River is accessible from Garrison Beach Wayside and the beach south of Port Orford is accessible from Battle Rock City Park. Central County beaches are only accessible by vehicle at the north and south Rogue River jetties which allow travel for a few miles in either direction. The beach at Pistol River is accessible at highway waysides.

These dune field areas exhibit many of the typical morphological characteristics of the larger dune sheets of the northern coast by are limited in size. A typical cross-section of a dune field in the county is shown in Figure 15.9.A. This profile indicates that the beach changes to an active foredune, a deflation plane, small hummock dunes, and finally surface stable dunes as the progression in dune morphology in the onshore direction. All of these forms are not necessarily developed in each dune field such that the field has progressed to the older stable dune stage.

The foredune is defined as "the first ridge of sand situated immediately above the high tide line and parallel to the beach."[1] The foredunes along the Oregon Coast have developed in the last forty years as a result of the introduction of European beach grass (Ammophila arenaria) to the area in 1910. This grass spreads along the coast forming a nearly continuous barrier ridge along the shore. European beach grass prefers sites of continuous sand deposition where it grows seaward until halted by wave erosion at the high tide line. The beach grass plants form form an obstacle to the wind which leads to deposition of sand around the plant. As the plant is buried it sends out new shoots which grow from stem joints and these new plants trap more sand forming a foredune. Foredunes are the most dynamic of the dune forms and change quickly from being active (insufficient vegetation to stop wind erosion) to being conditionally stable (have sufficient vegetation to retard wind erosion).

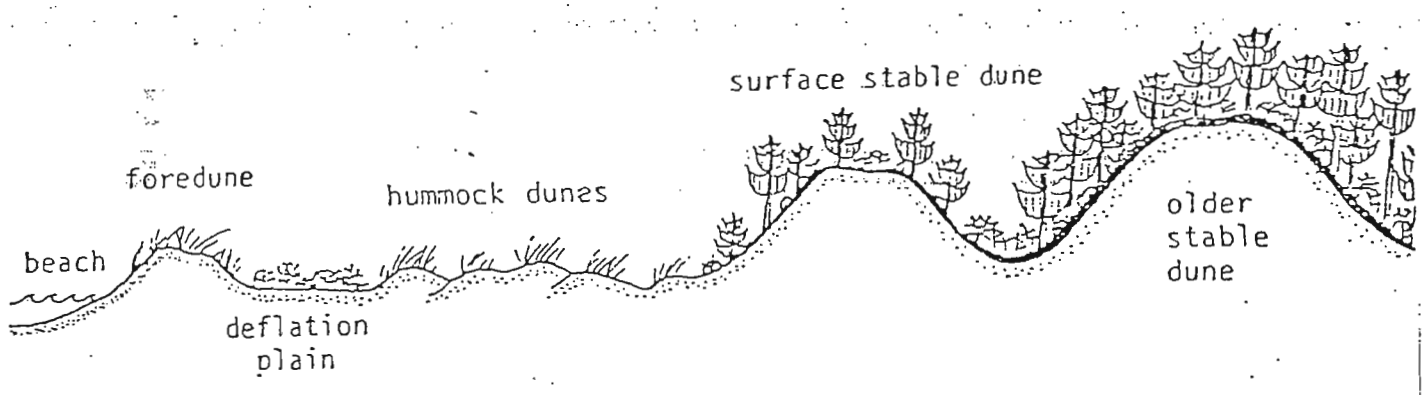

FIGURE 15.9A

Cross section of a typical dune field showing the progression of dune forms inland from the beach (from OCZMA Beaches and Dunes Handbook for the Oregon Coast, Pt. 1, p.5).

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1 OCZMA (1979)

15.10 PLAN POLICIES RELATING TO COASTAL SHORELANDS - BEACHES AND DUNES.

Curry County has identified the coastal shorelands and beaches and dunes of the county and recognizes that these areas have special significance as part of the comprehensive plan. The following plan policies have been developed with regard to coastal shorelands - beaches and dunes.

1. Curry County recognizes the importance of coastal shorelands and has defined the coastal shoreland area by a boundary that is related to physical processes that affect the shoreland or is defined by the Coastal Shoreland Goal.

2. Curry County has defined the resources of the coastal shoreland area and find that they are protected by either inclusion in state parks or by appropriate zoning by the county.

3. Curry County will continue to protect the resource values of coastal shorelands by implementing its zoning ordinance in the shorelands area in compliance with the Coastal Shorelands Goal.

4. Curry County recognizes that the beach and dune areas of the county are critical environments which are an asset to the county in the form of providing scenic settings as well as recreational opportunities.

5. Curry County recognizes that the seacliffs and coastal headlands of the county provide some of the most scenic setting in the county and are mostly protected as an asset to the county by being in public ownership.

6. Curry County recognizes that seacliffs and coastal headlands in the county that are potentially eroding as part of the natural coastal erosion process and present a hazard to development uses unless proper precautions are taken.

7. Curry County has identified that the dune fields of the county and that they provide a unique ecological habitat for several rare plant species and the western snowy plover; most of these areas are protected by being in public ownership.

8. Curry County has identified that recreational uses of the beaches and dunes of the county should be encouraged by providing public access points wherever possible.

9. Curry County recognizes that ORV use on some beaches in Curry County is common and should be allowed wherever safe access is possible and state laws are followed for the use of such vehicles.

10. Curry County will not permit developmental uses on areas identified as beaches or active foredunes since these areas are too hazardous for permanent structures.

11. Curry County will permit developmental uses in the vicinity of eroding seacliffs or on stable dunes when findings are made by a competent professional which adequately protect the proposed structure from any potential geological hazard or adverse environmental impact.

12. Curry County has designated beach and active dune areas of the county where developmental uses are not permitted with a beach and dune conservation zone to allow other uses which are appropriate to the aesthetic, environmental and recreational values of the areas.

13. Curry County will permit beach front protective structures only under provisions of ORS 390.605 to 390.770 for structures existing prior to January 1, 1977. Protective structures to protect subsequent structures shall be required to receive a review by all affected agencies and local review by the Planning Commission to determine that they a) minimize visual impact, b) do not impair beach access, c) do not create negative impact on adjacent property, d) do not create long term or recurring costs to the public.

14. Curry County will permit the breaching of foredunes on a temporary basis for emergency situations such as fire control, draining farm lands, flood control, and to replenish sand supply in interdune areas as long as restoration of the breach is carried out after the emergency using sound principals of conservation.

15. Curry County will regulate action in beach and dune areas, including older stabilized dunes, to minimize resulting erosion. Such actions include the removal of stabilizing vegetation, the exposure of

stable areas to erosion and construction of shore structures.

16. Curry County will take measures to protect groundwater from drawdown which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of salt water into water supplies.

CHAPTER 16. ESTUARINE RESOURCES

16.1 INTRODUCTION

This chapter of the comprehensive plan considers the estuaries of Curry County and their associated wetlands. An estuary is the marine environment created where a river enters the ocean causing a mixing of fresh and salt water under tidal action. The hydrological and chemical mixing of the two water bodies creates a unique ecological environment for plants and wildlife that creates high biological productivity. Estuaries also provide deep water marine access to the ocean which man utilizes for industry, commerce, and recreation. These uses often create conflicts with the natural values of an estuary which must be considered in the comprehensive plan.

Curry County has two estuaries of significant size and several minor estuaries. The estuaries of the Rogue and Chetco Rivers are the major estuarine environments of the county with distances to head of tide being several miles from the mouth of the river. The Sixes, Elk, Pistol, and Winchuck Rivers and Floras, Euchre and Hunter Creeks all have minor estuaries with the distance to head of tide being less than one mile from the mouth of the stream. Due to the geological structure and physiography of the region the estuaries in Curry County are far smaller in size and lack the great expanse of tidal flat and slough of the other estuaries on the Oregon coast. The steep gradients typical of the rivers in Curry County result in only limited tidal influx of ocean water up the river valleys and the creation of only limited intertidal flats. The most significant part of the larger estuaries in the county is that area near the mouth of the rivers where man has developed harbors for commercial, industrial and recreational use.

The estuary plan for Curry County consists of individual inventories for the Rogue River and Chetco River estuaries since they are the largest and most developed estuaries in the county. The plan also includes an inventory which summarizes the data related to the estuaries of the smaller streams and an estuary management plan for all county estuaries.

16.2 ESTUARINE RESOURCES GOAL REQUIREMENTS

Goal 16 is one of the most complex statewide planning goals in the development of local comprehensive plans. The problems related to conflicting uses in estuaries and on estuarine shorelines are often so involved that the estuary plan becomes a separate land use plan from the general comprehensive

plan for the county. Curry County has developed a plan for the county estuaries which has its own management considerations in terms of the goal requirements. The estuary plan provides a separate inventory, boundary determination for each estuary, management designations within each estuary, zoning for each estuary, and countywide policies for the estuaries.

Goal 16 has its primary intent "to recognize and protect the unique environmental, economic and social values of each estuary and associated wetlands and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries."

The State of Oregon through LCDC has classified all Oregon estuaries into four different types. (LCDC, 1979)

(1) Natural estuaries - estuaries lacking maintained jetties or channels and without adjacent urban areas which have altered shorelines;

(2) Conservations estuaries - estuaries lacking maintained jetties or channels but are without adjacent urban areas which have altered shorelines adjacent to the estuary;

(3) Shallow-draft development estuaries - estuaries with maintained jetties and a main channel which is maintained at 22 feet or less; and

(4) Deep-draft development estuaries - estuaries with maintained jetties and a main channel maintained at deeper than 22 feet.

LCDC through the implementation of the Oregon Estuary Classification System has designated the Sixes, Elk, and Pistol Rivers as natural estuaries, the Winchuck River as a conservation estuary, and the Rogue and Chetco Rivers as shallow-draft development estuaries. The estuaries of Floras, Euchre and Hunter Creeks were not classified under this system.

Goal 16 requires that comprehensive plans for each estuary provide for appropriate uses with as much diversity as is consistent with the overall estuary classification as well as the biological, economic, recreational, and aesthetic benefits of the estuary. The goal requires that inventories shall be conducted to provide information necessary for designating estuary uses and policies. These inventories shall provide information on the nature, location, and extent

of physical, biological, social, and economic resources in sufficient detail to establish a sound basis for estuarine management and to enable the identification of areas of preservation and areas of exceptional potential for development.

Based upon inventories, the limits imposed by the overall Oregon Estuary Classification, the needs identified in the planning process, comprehensive plans for coastal areas shall:

(1) identify each estuarine area;

(2) describe and maintain the diversity of important and unique environmental, economic and social features within the estuary;

(3) classify the estuary into management units; and

(4) establish policies and use priorities for each management unit.

Curry County has prepared inventories for all its estuaries, classified them into management units and established policies for each management unit as part of the estuary plan.

16.3 ROGUE ESTUARY

16.3.1 Introduction

The Rogue Estuary is located on the central part of the Curry County Coast at the mouth of the Rogue River. Among Oregon coastal rivers the Rogue River is second only to the Columbia River in size of drainage basin; however, it has one of the smallest and least productive estuaries of the entire coast. The Rogue River has its headwaters in the Cascade Range of central Oregon and flows west through the Rogue River Valley and Klamath Mountains to the Pacific Ocean at Gold Beach. Although the headwaters of the Rogue River are located in the Cascade Mountains physiographic province of the river mainstream and its estuary are located in the Klamath Mountains province. The Rogue Estuary is typical of those estuaries located in the Klamath Mountain province in that the geological faulting and folding of the rocks in the coastal area have resulted in the recent uplift of the coastline thereby limiting the landward extent of the tide and hence the size of the estuary. The Rogue Estuary only extends 4.5 miles upstream from the mouth of the river to head of tide with no development of broad tidal flats or marshes.

The Rogue Estuary is a drowned-river valley estuary which extends a short distance inland along the river course. The river valley in this case is essentially a wide canyon with a total relief of almost 1000 feet from the river bed to the crest of the mountain ridge east of the City of Gold Beach (see Figure 16.3A Topo Map). Just upstream from the head of tide the river valley narrows abruptly and continues easterly as a deep canyon through the Klamath Mountains. Due to the topographic constraints of the area there is relatively little development along the estuary shoreline. The City of Gold Beach is located on the coastal terrace just to the south of the mouth of the river. The community of Wedderburn is located on the north side of the river at the mouth of the estuary. Most of the remaining estuarine shoreline is either vacant or has low density residential use. The only remaining plywood mill in the Gold Beach area is located on the south side of the river at the head of tide.

Table 16.3.A lists some of the general statistics of the Rogue River and Rogue Estuary. The Rogue River has the largest watershed in southwestern Oregon of which about half is located upstream from Grants Pass in the Cascade Range and the other half downstream in the Klamath Mountains. The Illinois River is the Rogue's largest tributary contributing 40% of its total yield, and is located entirely within the Klamath Mountains. The Rogue Estuary is short in length and small in area.

TABLE 16.3.A

Rogue River - Rogue Estuary

Parameter	Dimension
Rogue River length	211 miles
Rogue River drainage basin area	5,160 square miles
Rogue River (mouth) mean annual discharge	8,200 cubic ft./sec.
Rogue River (mouth) maximum flow of record	500,000 cu. ft./sec.
Rogue Estuary total area	627 acres
Rogue Estuary tideland area	149 acres.
Rogue Estuary submerged area	478 acres.

The Rogue Estuary is essentially a river channel that lacks the bay and slough subsystems typically found in other Oregon estuaries. A marine and riverine subsystem can be defined with an arbitrary line of separation being located at the Rogue River Bridge.

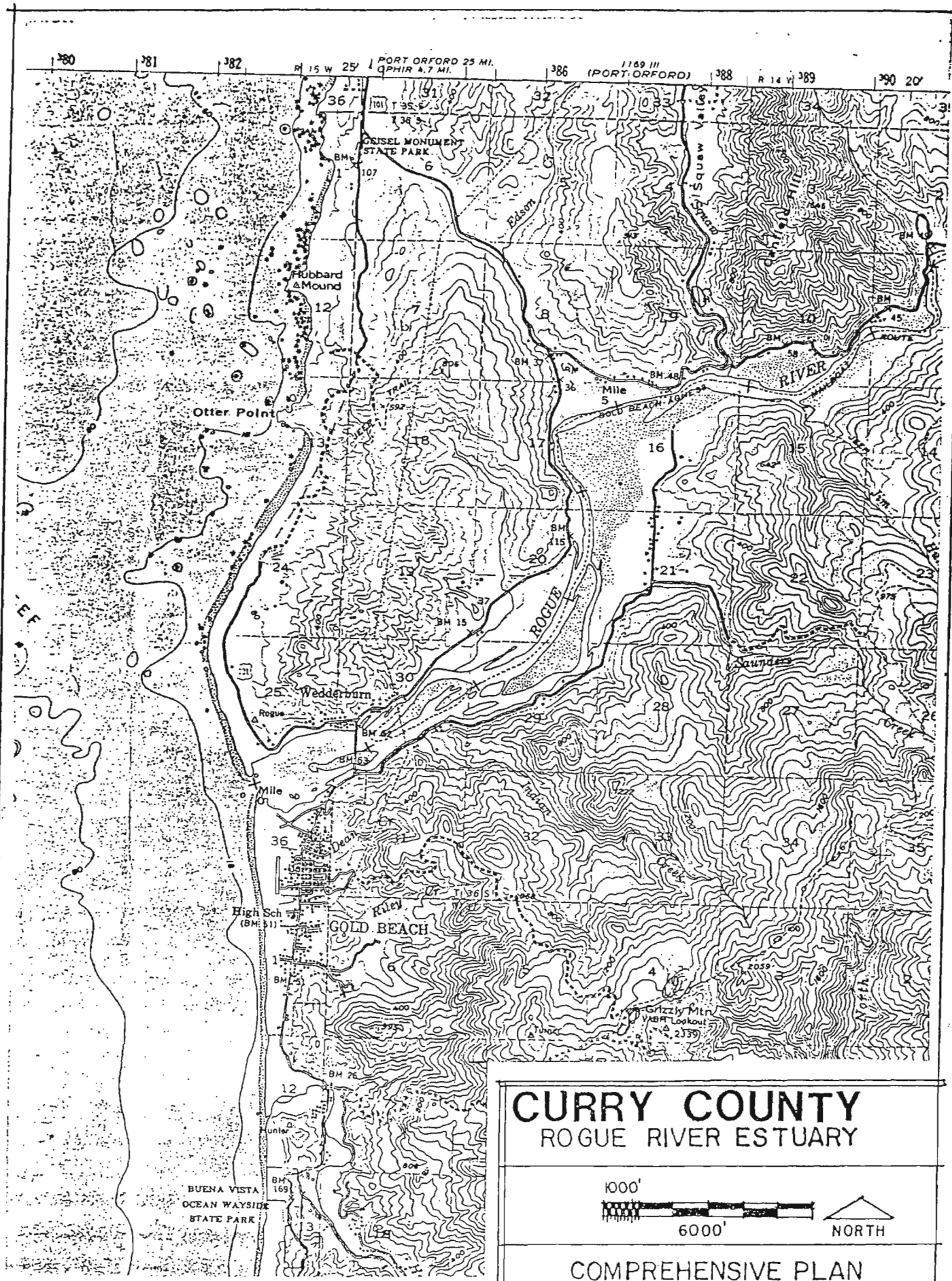

PORT ORFORD 25 MI.
OPHIR 4.7 MI.
(PORT ORFORD)
R 15 W
R 14 W
OEISEL MONUMENT STATE PARK
Hubbard Mound
Otter Point
Wedderburn
Rogue
GOLD BEACH
High Sch
Mile
Mile
ROGUE
RIVER
GOLD BEACH-LONESS
Squaw
Edson
Indian
Dean
Riley
Grizzly Mtn
VABM Lookout
BUENA VISTA
OCEAN WAYSIDE
STATE PARK
Hunter
CURRY COUNTY
ROGUE RIVER ESTUARY
1000'
6000'
NORTH
COMPREHENSIVE PLAN
Topographic Map

Figure 16.3.A

16.3.2 Rogue Estuary Inventory

Geographic - Geological Characteristics

The Rogue Estuary is classified by physiographic and geomorphic characteristics as being a "drowned river valley" estuary. Drowned river valley estuaries are those estuaries which were formed when the lower portion of a river valley was inundated by a rise in sea level. This type of estuary is typical of the large embayments of the east coast of the United States where there is a broad coastal plain. The Oregon Coastal Plain is particularly narrow in Curry County and the Rogue River has a steep gradient at the coast so that the rise of sea level has limited the penetration of tidal influence in the river valley. This combination of geomorphic factors has caused the Rogue Estuary to be relatively small in length and size.

The Rogue Estuary is located within the Klamath Mountain geologic province. This geologic province is typified by highly faulted an folded metamorphic rock formations of Mesozoic age. The folding and faulting of rocks is relatively complex and erosional dissection of the terrane has resulted in the characteristically steep topographic nature of the province. Figure 16.3.B is a geological map of the Gold Beach area which shows the bedrock rock formations in the vicinity of the estuary.

The predominant formation exposed near the estuary is the Otter Point Formation (Jop) which is a rock unit that is a structural association of highly varied rocks of various origins which are faulted and sheared. The rock types typical of this formation include sandstones, conglomerates, basalts, cherts, and blue schists which have all undergone some form of metamorphic alteration. A second formation exposed in the vicinity of the estuary near Gold Beach is Serpentinite (Spp). Serpentinite is a rock composed serpentine which is a single mineral group. Serpentinite is a rock which is typically found as large slabs in association with faulting.

These bedrock geological rocks are overlain by surficial sediments of various types; alluvium (Qal), fluvial (Qft), beach sand (Sb) and dune sand (Su, Ss). The surficial sediments are relatively recent in geologic age and are the result of river or marine deposition in the estuary area.

The sediments in the Rogue Estuary are predominantly terrestrial in origin. River flow and sediment depositions in the river channel restrict the deposition of marine sands to the mouth of the estuary. When river flow is high most of the suspended sediment transported by the river is carried out of the estuary and is deposited in the ocean. Bedload sediment transported by the river during high flow is predominantly gravel; however, as river flow decreases during the summer and fall estuarine deposition of finer-grained sediment increases. Those sediments accumulate over the gravel base in the upper estuary.

GEOLOGIC LEGEND

1. Stable dune sand (Ss)
2. Unstable dune sand (Su)
3. Fluvial terrace (Qft)
4. Serpentine & perdotite (Spp)
5. Middle marine terrace (Qmt)
6. Alluvium (Qal)
7. Otter Point formation (Jop)
8. Beach sand (Sb)

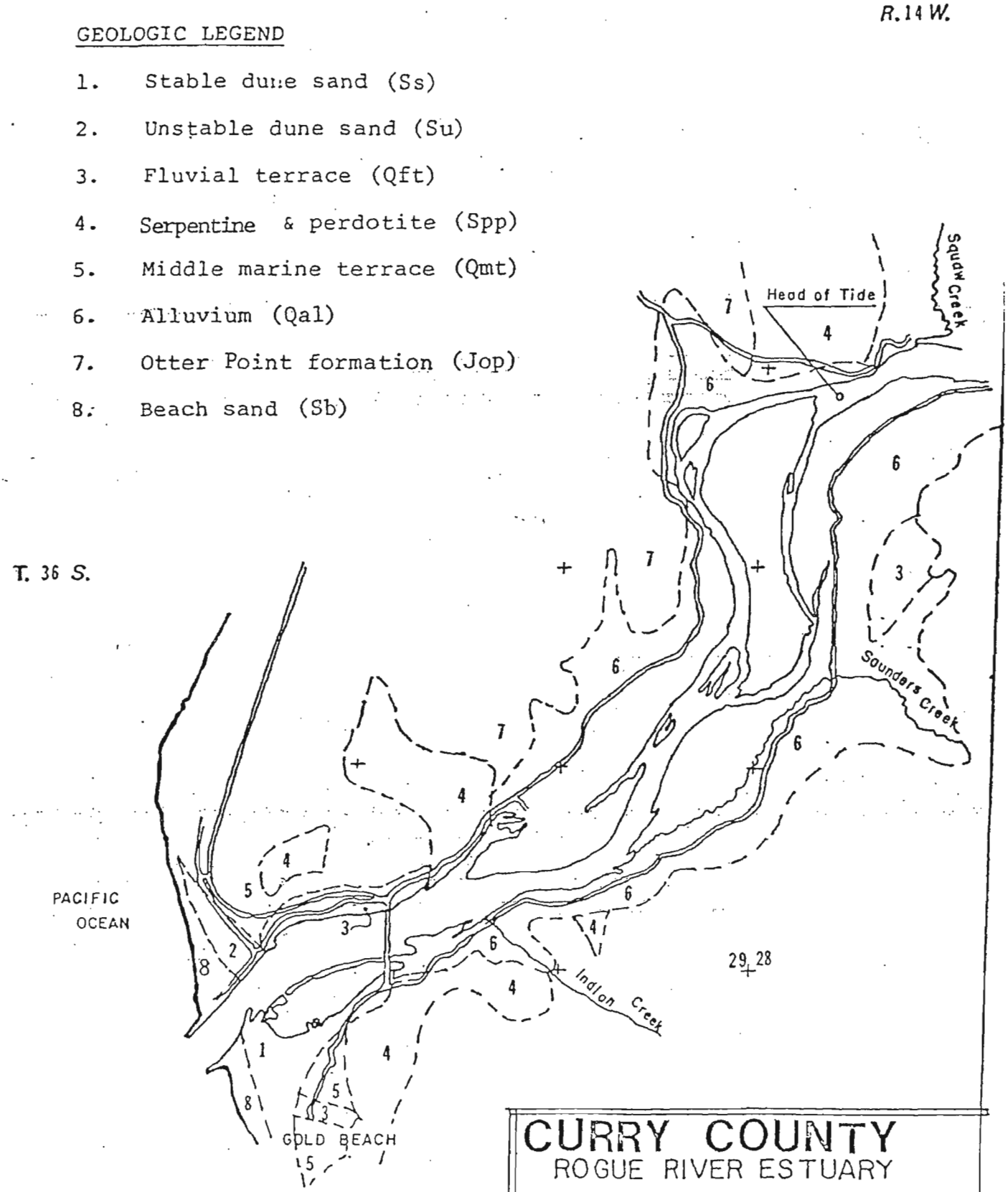


Figure 16.33

The Rogue Estuary is characterized by extensive sand and gravel bottom sediments and a lack of silts, mud and organic substrates. A comprehensive bottom sediment sampling program has not been carried out in the estuary but a generalized inspection of aerial photos and on-site visits of specific sites indicates that most of the estuary has cobble/gravel and coarse sand intertidal flats. Historically at least three of these areas have been used as aggregate sources.

Historically there was a sand spit at the mouth of the estuary which is composed of angular fine sands with low organic content (COE 1975). These sands are of marine origin and were typically transported along the coast and into the mouth of the river. Since the jetties have been constructed at the mouth of the river the waves move the material along the jetties and into the entrance channel. A shoal area forms along the south jetty and at times extends most of the distance between the jetties. Waves and tidal currents move sand from this shoal area into the Port of Gold Beach boat basin.

Estimates of sediment movement at the mouth of the estuary indicate that the volumes of sediment transport are quite large. The gross longshore transport rates at the mouth of the Rogue River have been estimated at 500,000 to 1,000,000 cubic yards a year (COE, 1975). River flooding of up to 4,000,000 cfs can transport 1,000,000 cubic yards of sand and gravel through the estuary (COE, 1975). This type of sediment transport regime creates a very dynamic physical environment in the lower portions of the Rogue Estuary which often causes sudden changes in the topographic configuration of bars and tidal flats.

Geological hazards in the estuary include: 1) flooding, 2) streambank erosion, and 3) areas of geological unstability. Figure 16.3.C shows the 100 year floodplain of the Rogue River, those sites at which there is critical streambank erosion, and areas when there is potential for geological unstability due to slumping or earthflow. Virtually all of the Rogue Estuary is located within the 100 year flood plain of the river. The relatively narrow river valley combined with the large discharge potential for the Rogue River can essentially result in a complete flooding of the esturary in significantly floods. The Rogue River has had major floods in 1861, 1890, 1927, 1955, and 1964.

Critical streambank erosion is known to have occurred on both banks of the Rogue River within the estuary. The most pronounced area of streambank erosion in the estuary is along the south bank of the river for approximately a mile and a half east of Indian Creek. This stream bank erosion site is also located in an ares of geological instability due to the presence of serpentinite and there are periodic slumps which cause bank and slope failure of material into the estuary. Most areas of streambank erosion have been protected by riprap.

LEGEND

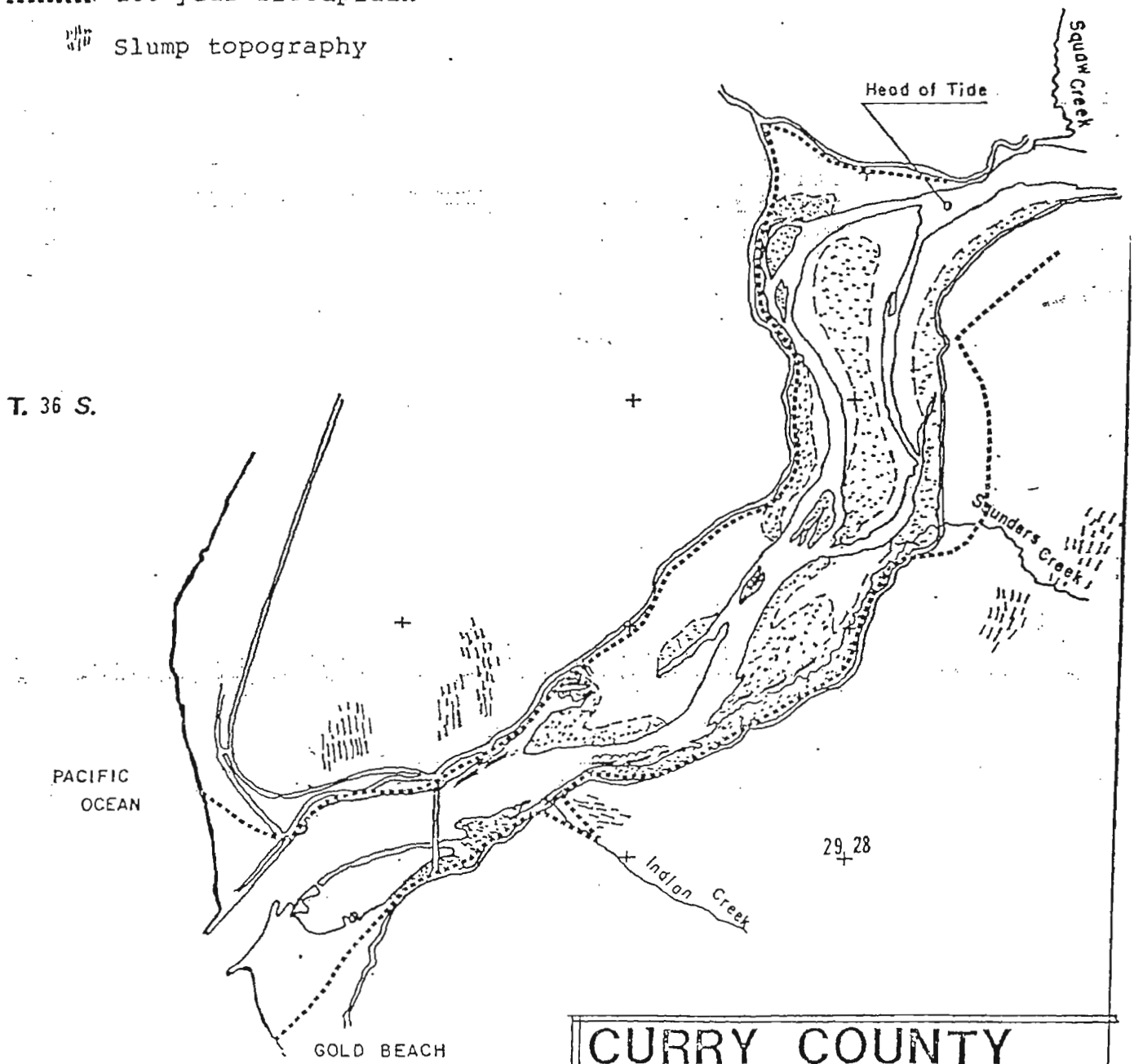
Riparian vegetation (rivers edge)

Critical streambank erosion

Critical streambank erosion & rip rap

100 year floodplain

Slump topography



CURRY COUNTY
ROGUE RIVER ESTUARY

1000'
6000'
NORTH

COMPREHENSIVE PLAN
Vegetation/erosion/flood

Figure 16.3. C

The only areas of geologic instability in the Rogue Estuary are those areas underlain by serpentinite. This rock type at certain sites is highly sheared and fractured and upon weathering and erosion becomes unstable. The most pronounced site of geological instability is located on the south side of the Rogue River from the Rogue River Bridge east to near the mouth of Saunders Creek. This area is a steeply sloping hillside which has slumped causing damage to the county road, and other utility facilities in various places. Remedial measures have been taken to stabilize the failures and the problem has become less critical in recent years.

Hydrological Characteristics

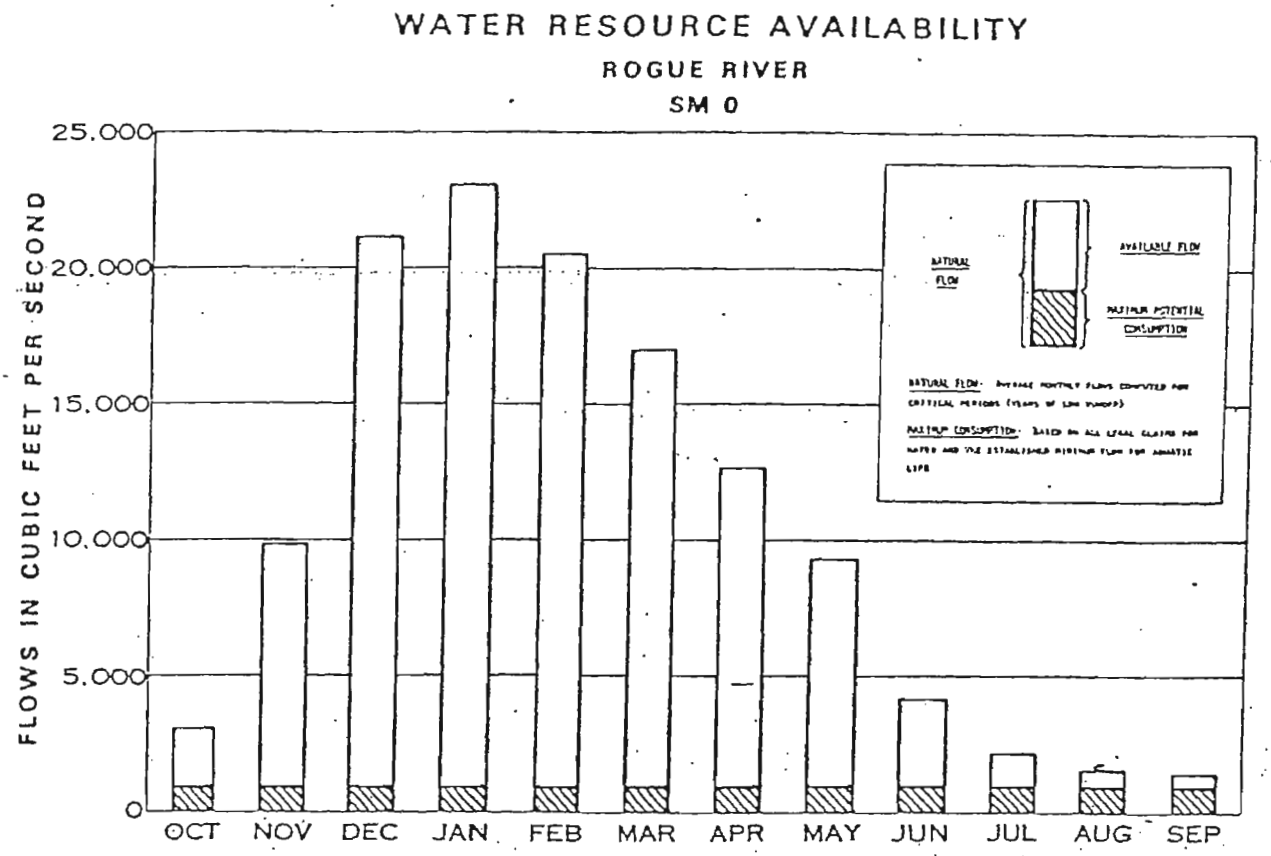
The Rogue Estuary is dominated by river flows. The Rogue River drains a large area of the western slope of the Cascade Range and the Klamath Mountains. Although the river is dammed in several places these dams have not significantly altered the flow pattern at the mouth (Perry et al, 1974). Mean monthly discharge of the Rogue River at the mouth is shown in Figure 16.3.D.

The Rogue Estuary follows the shape of the river channel with extreme flood tides extending upstream 4.5 miles. The flow in the upper estuary is split around a large island (Elephant Rock) and the head of tide for most tidal levels is in the vicinity of this island. A dike constructed on the south side of the river near the mouth created the Port of Gold Beach Boat Basin and altered the hydrology of the lower estuary. The shallow area of the boat basin was essentially cut off from the flow of the main channel on the north side of the dike.

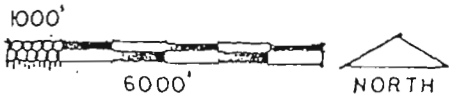
The bathymetry of the estuary varies with the movement of the main channel of the river through the estuary. This channel has continually altered its location by erosion and deposition so that the water depth in the estuary is altered with changes in flow. Catastrophic changes in bathymetry are associated with major floods that often result in major realignments of the river flow pattern. Generally minimum depths at low tide vary from about twenty feet near the north jetty to about five feet in the main channel near Elephant Rock (ODFW, 1979).

The mean high tide at the mouth of the Rogue Estuary is +6.0 feet (NOAA, 1976). Other tidal datums for the Rogue estuary are as follows:

Extreme High Tide	10.00
MHHW	6.70
MHW.	6.00
MSL	3.55
MLW	1.10
MLLW	0.00
Extreme Low Tide	-3.00



CURRY COUNTY
ROGUE RIVER ESTUARY



COMPREHENSIVE PLAN
River Flow

Figure 16.3 D

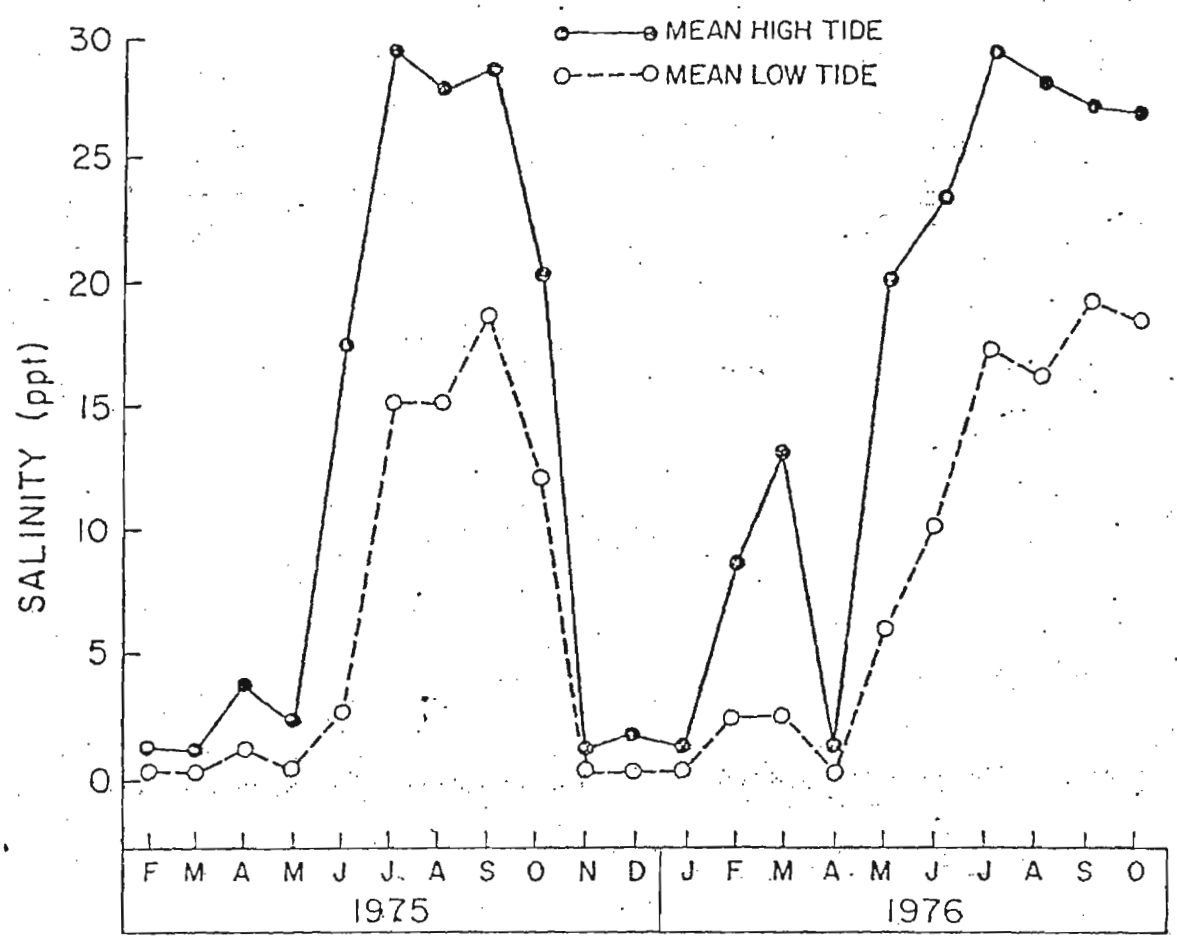
Since the hydrology of the estuary is dominated by the river flow it can be expected that the penetration of the tide is reduced by the river flow; however this effect has not been measured. The tidal prism of the Rogue Estuary is estimated at 1.6×10^8 cubic feet which is the volume of water between MHW and MLW (Johnson, 1972). The freshwater flow of the river produces a volume of water equal to the tidal prism in the summer months. Winter high water flows are several times greater than the volume of the tidal prism which easily overwhelm the effects of the incoming tide.

Salt water intrusion in the Rogue Estuary is limited due to the steep river gradient and large volume of the river discharge. The limited salinity measurements in the estuary indicate that salt water intrusion has reached RM 3.6. However, it appears that a shallow riffle just above Snag Patch Slough is the first barrier to marine water during low river flows and tides less than +6 feet (ODFW, 1975).

Salinity measurements in the Rogue Estuary indicate that the estuary is never fully mixed. Figure 16.3.E shows the average seasonal destribution of bottom salinity for the entire Rogue Estuary. A partially mixed wedge of saline water extends to RM 2.2 at high tide and to RM 1.9 at low tide (ODFW 1979). During high river flows the salt water wedge generally does not penetrate the estuary further than the base of the north jetty even at high tide. Another factor affecting the salinity of the Rogue Estuary is the spit that has formed between the jetties at the mouth of the estuary. It has been noted that when the spit restricts flow that salinity levels in the estuary during the fall are lower than the early summer levels at the same flow rates.

Water quality within the Rogue Estuary is generally good and is maintained within DEQ standards even during low flows (ODFW, 1979). The poorest area for water quality is the Port of Gold Beach Boat Basin due to its restricted flushing. Hydrological analysis indicate that it takes three tidal cycles to flush the basin (Slotta and Noble, 1977). Flushing in the main estuary has not been studied but is much more rapid due to the high river flows. During low flow periods flushing is somewhat restricted by the sand spit which forms at the mouth of the estuary.

Other water quality measurements in the estuary include dissolved oxygen concentration, termperature, and nutrient levels. Measurements made from April, 1975, to October, 1976, indicated that dissolved oxygen concentrations were generally above 80% of the saturation level (Lichatowich and Marten, 1977). Low concentrations at the bottom were reported in the estuary during low flow which indicates accumulation of organic material on the bottom when currents are reduced.



Mean bottom salinity during mean high and low tides in 1975 and 1976 (Lichatowich and Martin 1977).

CURRY COUNTY
ROGUE RIVER ESTUARY

COMPREHENSIVE PLAN
Salinity

Figure 16.3.E

Temperature measurements in the Rogue Estuary indicate the presence of a two-layer system. Cool ocean water concentrates on the bottom, while the surface water temperature fluctuates with the river water temperatures (ODFW, 1979). Nutrient measurements in the Rogue Estuary indicate that the river carries large amounts of phosphates into the estuary. High river flow was accompanied by higher phosphate concentrations at the bottom (Lichatowich and Martin, 1977). Nutrient concentrations being lowered at the surface due to a significant uptake of nutrients by phytoplankton.

Biological Characteristics

The Rogue Estuary biological habitats can be divided into two general subsystems; a marine subsystem and a riverine subsystem. The bay or slough subsystems typical of other Oregon estuaries is not present in this estuary. The marine subsystem includes the boat basin and estuarine area west of the U.S. 101 bridge. The riverine subsystem includes the remainder of the estuary upstream from the bridge to head of tide at River Mile 4.5 (Figure 16.3.F)

The marine subsystem is almost continually influenced by the ocean with some salt water penetration during each tidal cycle. During most of the year the river discharge is high enough to prevent saltwater from entering the riverine subsystem; however when flow is low the saltwater wedge penetrates along the bottom and partially mixes with freshwater.

The habitats of the Rogue Estuary were described by ODFW in a natural resource survey done in 1978-79 (ODFW, 1979). As part of that survey a habitat map was prepared which is shown in Figure 16.3.G. The habitats of the marine subsystem can be divided into three areas: the main channel, the subtidal areas behind the port boat basin dike, and the intertidal areas. The habitats of the riverine subsystem are the subtidal river channel and the intertidal bars and flats. Intertidal areas in this subsystem generally fall into two catagories 1) summer intertidal (tidally influenced during low flow and submerged during high flow) and 2) winter intertidal (tidally influenced during high flow and always exposed during low flow).

Habitats in the marine subsystem have a variety of substrates ranging from mud to boulders. The main channel has not been sampled in the subtidal environment but is probably partly sand and partly cobble/gravel. Subtidal substrate in the boat basin range may range from mud to sand. Substrate in the channel near the Coast Guard dock are sands and fine gravel which contain a benthic fauna that are important in the diet of salmonids (ODFW, 1979).

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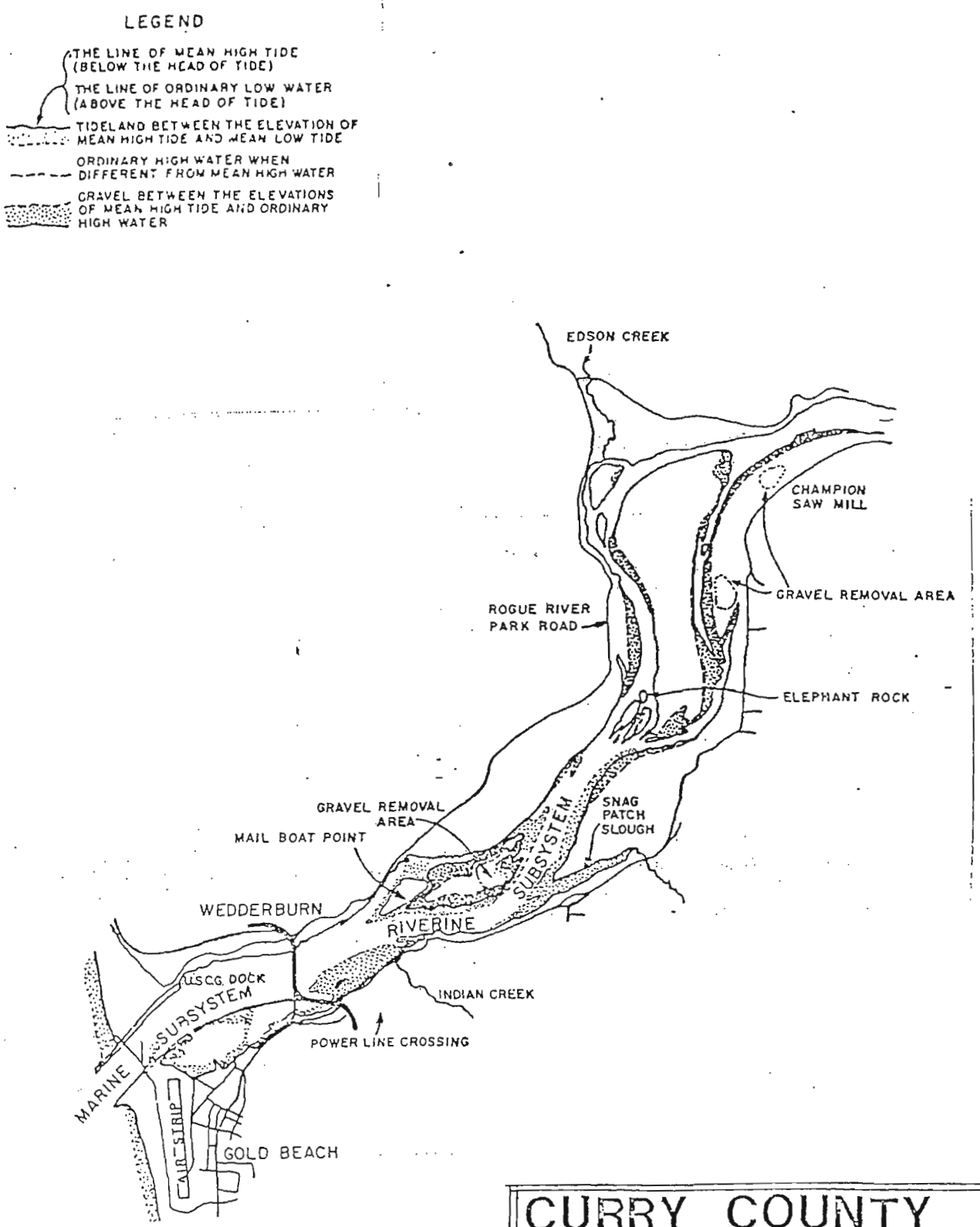


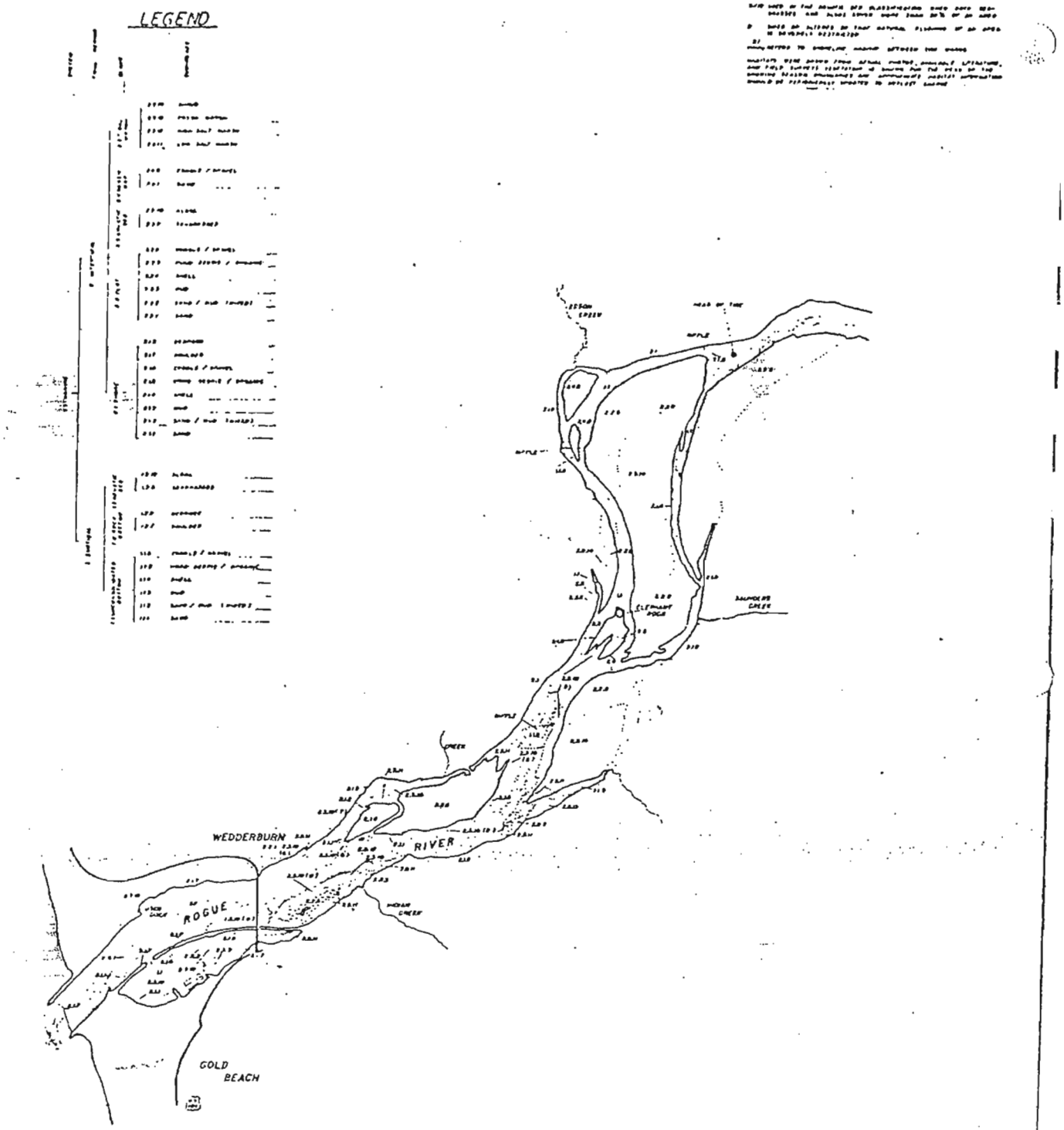
CURRY COUNTY
ROGUE RIVER ESTUARY

NORTH

COMPREHENSIVE PLAN

Figure 16.3.F

Subsystems



HABITAT MAP
ROGUE ESTUARY
RESEARCH AND DEVELOPMENT SECTION
ORE. DEPT. OF FISH AND WILDLIFE
SEPTEMBER 1978

DATA SOURCES

CURRY COUNTY
ROGUE RIVER ESTUARY

1000'
6000'
NORTH

COMPREHENSIVE PLAN
Habitat Base Map

Figure 16.3.G

The Oregon Department of Fish and Wildlife has made the following management recommendations regarding the habitats of the marine subsystem of the Rogue Estuary:

1. "the few undisturbed intertidal and shallow subtidal habitats remaining in the lower estuary should not be altered except as part of a restoration project;"

2. "the shallow subtidal land outside the boat basin dike (where the island was formerly located) is also a potentially important fish rearing area that should not be dredged or filled;"

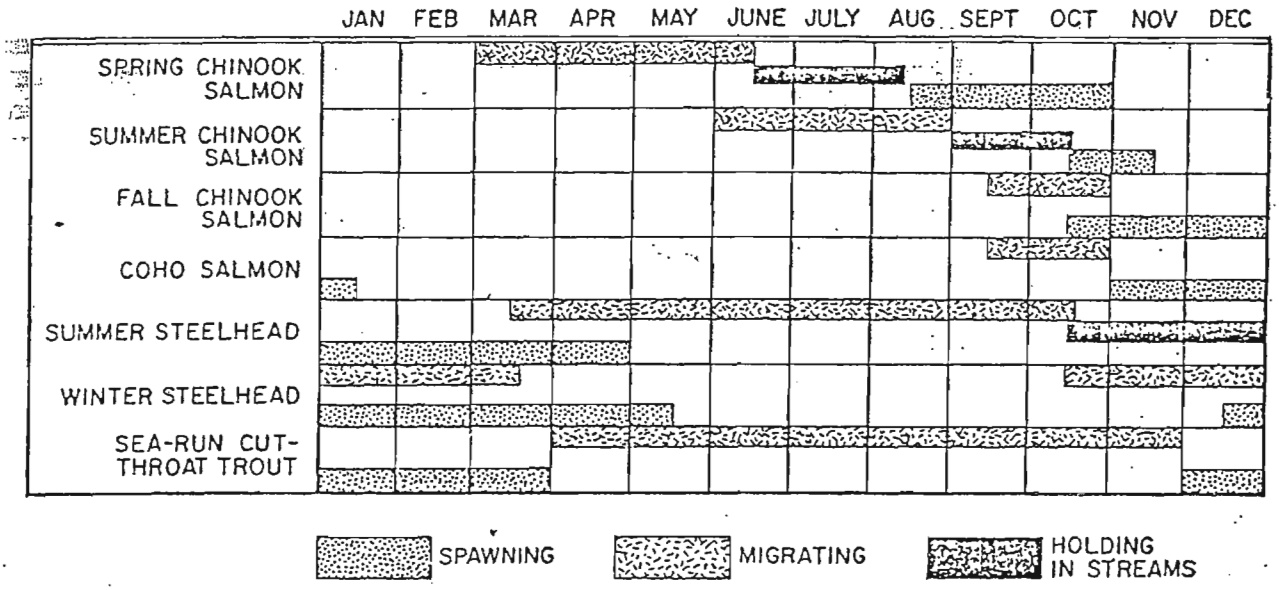
3. "tidelands within the boat basin, particularly along the eastern end should not be dredged or filled... algal beds, mudflats, and fringing marsh along the shore within the basin may be especially important.."

The riverine subsystem has twice as much subtidal area as the marine system. The riffle areas have a cobble/gravel substrate as well as most other areas of the channel. The upper intertidal boundary is drawn at the mean higher high water line and the generally cobble/gravel flats and shrub tidal marsh are winter intertidal habitats.

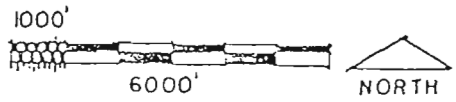
More than half of the riverine area is gravel bar and shrub wetland above MHW which is only flooded during higher tides and high river discharge. The main river channel has shifted and branched creating low islands with shrubs. The channel is also characterized by deep holes and shallow riffles which restrict the penetration of tidal influence such that high tides which are lower than MHW do not penetrate beyond the second riffle above Elephant Rock and higher high tides only extend to the third riffle at RM 4.5

The typical habitats of the riverine subsystem include the cobble/gravel substrates of the channel and riffles, silt substrate areas away from the areas of strong current, and the cobble/gravel or shrub marsh intertidal areas. The subtidal habitat area is a prime feeding and rearing area for fish with juvenile salmon and cutthroat trout being abundant in this area (see Figure 16.3.H). Shiner perch, surf smelt, and Pacific herring are also present during summer with white and green sturgeon in the deeper areas throughout the year.

Much of the intertidal areas below saltwater intrusion contain productive habitat for Corophium spp. and Anisogammarus spp. which are food for other species which inhabit the estuary. The shrub intertidal marsh are winter intertidal habitats which are found along the islands and both shores. These dense shrub areas may contribute nutrients and organic material to the estuary. On the south shore at the lower end of the riverine



CURRY COUNTY
ROGUE RIVER ESTUARY



COMPREHENSIVE PLAN
Fish Cycles

Figure 16.3.H

subsystem is a tidal flat and island which have been modified by construction of the boat basin dike. The island has a gravel base that is covered with a layer of fine sediment and an intertidal algal bed grown there during summer. The island and intertidal flat is characterized by the spike rush (Eleocharis spp.) and scattered forbs which grow on the gravel substrate (Akins and Jefferson, 1973). This marsh type is typical of a few southern Oregon Coast estuaries of which this site is the largest remaining occurrence of this habitat in the Rogue Estuary.

Another major intertidal area is located on the north shore in the vicinity of Mail Boat Point. Mail Boat Point has a gravel substrate but its location between the river channel and the mouth of the north slough shows the current and increases sediment deposition. The area is known to have beds of amphipods in the fine sand and mud, productive algal beds occur on the gravel and a fringing low marsh in found on the shore (ODFW, 1979).

Snag Patch Slough is located on the south shore of the estuary and is the most densely vegetated marsh in the Rogue Estuary. It has a mud substrate and is bordered by a low freshwater marsh (ODFW, 1979). This slough provides excellent habitat for juvenile fish, terrestrial wildlife, and waterfowl (Riikula, 1977).

Other parts of the estuary which are important estuarine habitats are the gravel bars lying downstream from Elephant Rock and the cobble gravel river shores.

The Oregon Department of Fish and Wildlife has made the following management recommendations regarding the habitat areas of the riverine subsystem of the Rogue Estuary:

1. "the intertidal flat and island along the south shore above highway 101 should be protected";

2. "the habitats at Mail Boat Point, the north slough and the island dividing the river channel should be preserved";

3. "the shoreline gravel areas in the mid and upper estuary are important for amphipod production";

4. "slough and creeks entering the riverine subsystem including Indian, Saunders, and Edson Creeks should not be filled or diked";

5. "Snag Patch Slough and its productive marsh are valuable habitats for aquatic and terrestrial species and should be protected."

The principal wetland areas in the Rogue Estuary are the 1) spike rush and forb marsh located on the south side of the estuary just upstream from highway 101; 2) the finging low marsh at Mail Boat Point and 3) the marsh at Snag Patch Slough. These wetland areas provide valuable habitats for birds, mammals and other species which frequent the estuary. Figure 16.3.I shows the distribution of salt marsh vegetation in the Rogue Estuary.

The flora and fauna of the Rogue Estuary can be described in the following general catagories of organisms: plants, invertebrates, fish, birds and mammals.

Plants:

Phytoplankton, algae, marsh plants and organic detritus carried downriver to provide the base of the food chain in the Rogue Estuary. The estuary lacks seagrass beds and salt marsh commonly found in most Oregon estuaries; however; there are a few areas of sparsely vegetated intertidal gravel marsh and algae beds found on cobble substrate (Adkins and Jefferson, 1973). The primary production from these sources has not been studied in the Rogue Estuary.

The riparian vegetation adjacent to the estuary is predominantly mixed stands of coniferous and deciduous trees. This fringing vegetation is found in various parts of the estuary with the most continuous riparian strip being located on the south shore between river miles 2 and 4 (see Figure 16.3.C).

Invertebrates:

The benthic invertebrate community of the Rogue Estuary is somewhat different from other Oregon Estuaries due to the strong currents, unstable gravel substrate, and low salinity of the waters in winter which requires a summer recolonization. The Rogue Estuary lacks bay clams, ghost shrimp, and mud shrimp; however, larger invertebrates which are mobile such as crabs and true shrimp are found in the estuary when conditions are favorable. Dungeness crab (Cancer magister) are caught in the estuary during late summer and fall. Also large populations of amphipod Corophium spinicorne and Anisogammarius confervicolus, have been sampled in various parts of the estuary (Boyce, 1979).

Fish:

Few fish species are permanent residents of the estuary. The runs of spring and fall chinook salmon, and summer and winter steelhead are greater than any coastal river in Oregon

except the Columbia (Percy et al., 1974). Coho salmon, sea-run cutthroat trout and a small population of chum salmon have been noted in the estuary (See Figure 16.3.H).

Thomasson (1979) found that the cutthroat trout mostly remain in the estuary prior to their first spawning rather than entering the ocean and that some fish remain in the estuary two years prior to spawning. He also found that 90% of the cutthroat trout caught in the Rogue Estuary were first time migrants and that the young age of the trout population may indicate that they are overfished.

Marine fish such as shiner perch, surf smelt, and starry flounder come into the estuary during the summer. Some of the perch species are believed to spawn in the estuary when conditions are favorable. Starry flounder feed in the estuary and may even enter freshwater above normal tidal influence. The smelt and lamprey migrate through the estuary to spawn in the river system. Riikula (1977) has reported that about 100,000 adult shad migrate into the Rogue River during the year. Other species such as lingcod, stickleback, herring, and sturgeon are also found in the estuary although there has been no general sampling to determine the numbers or their seasonal distribution.

Birds and Mammals:

The Rogue Estuary is not of major significance for the migrating waterfowl and shorebirds due to the lack of tidelands and marshes. However, there are two known great blue heron rookeries in the vicinity of the estuary and herons feed along the estuarine shoreline. Brown pelicans are late summer and early fall residents of the Rogue Estuary which probably has the largest concentration of this species along the Oregon Coast. Ospreys and eagles are also common visitors to the estuary and include it as a frequent hunting area.

The Rogue Estuary has the largest population of sea lions on the Oregon Coast except for the Columbia River. The California sea lions are common in the estuary from October to June with peak counts of about 70 animals in the spring. Stellar sea lions are much less numerous but have been observed in the estuary from January through October. A maximum number of six animals have been counted in the estuary.

Most sealions remain in the tidewater area but they have been observed as far as thirty miles upriver. The major food of the sea lion is believed to be lamprey although a variety of other fish are also eaten by the species (James Harvey, pers. comm.).

Harbor Seals are periodically observed in the estuary feeding, resting, and molting. Seals are present all year but are most abundant in the spring when 80-100 seals have been counted. They are least frequently seen during the summer months while the adults are bearing their pups. Other marine mammals occisionally stray into the estuary but are not regular residents.

Terrestrial mammals also make extensive use of the estuary. Mammals commonly found in the vicinity of the estuary include deer, bear, beaver, otter, muskrat, mink, bobcat, and coyote (Riikula, 1977).

Natural Areas:

The Rogue estuary contains two natural areas as identified in the "Oregon Natural Areas" inventory (Nature Conservancy, 1977). These sites are described as follows:

Site CU-5 The "Rogue River Estuary" located in Township 36S., Range 14W., Section 30 which contains a waterfowl wetland and intertidal gravel bars.

Site CU-11 The "Elephant Rock Herony" located in Township 36S, Range 14W., Section 29 and is a heron rookery in live oaks surrounded by madrones.

Site CU-5 essentially refers to the Rogue Estuary which is the topic of this part of the comprehensive plan. Resource values of this site will be considered in the overall plan for the estuary. Site CU-11 has been recently investigated and is no longer an active heron rookery (Personal communication, D. Werschul, 1981).

Social and Cultural Characteristics:

The Rogue Estuary lies in an area that has a combination of land uses. The lower part of the estuary lies within the City of Gold Beach Urban Growth Boundary (UGB). The urban growth boundary crosses the estuary just upstream from the Highway 101 bridge. Lands within the UGB are generally used for a combination of residential, commercial, marine related and public facility uses. That part of the estuary outside the UGB generally has resource related uses in upland areas adjacent to the estuary with clustered rural residential uses in various places along both shores.

Shoreland areas along the south side of the Rogue Estuary are commercial timber lands with scattered clusters of residences from the Gold Beach UGB to Saunders Creek. Upstream from Saunders Creek to the head of tide the south shore of the estuary in a residential area known as Jerrys Flat which is a small rural community. The density of development in the Jerrys Flat is higher than most rural areas in Curry County

due to the availability of public water from the City of Gold Beach main water line. The Champion plywood mill is located on the south shore of the estuary at the head of tide.

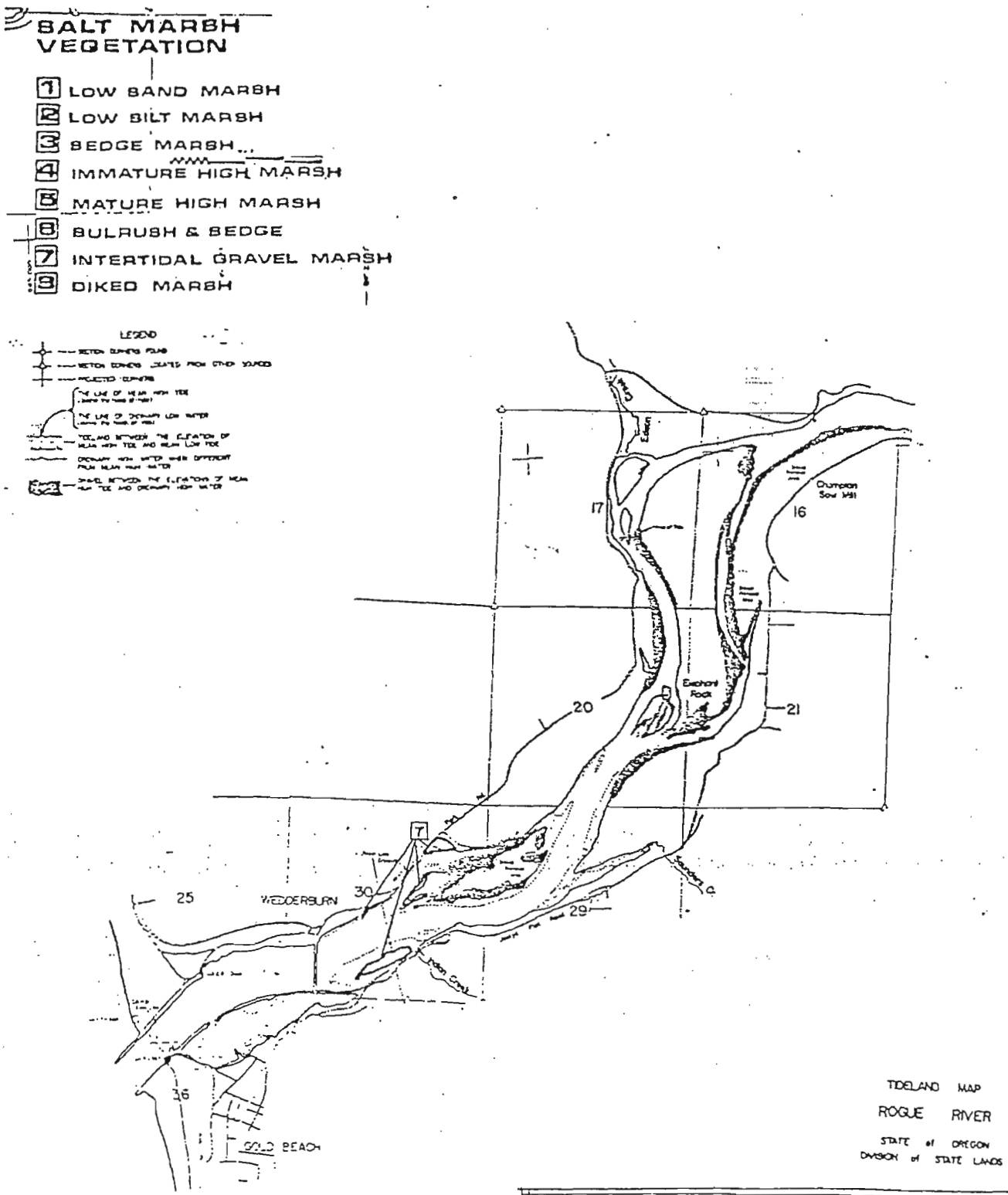
Land use on the north shore of the Rogue Estuary upstream from the Gold Beach UGB is predominantly agricultural and forestry resource uses. Pasture lands are located adjacent to the estuary along most of the north shore except for that area between Elephant Rock and the mouth of Edson Creek which is forested. There are scattered residential uses along the north shore especially near the head of tide just downstream from the mouth of Squaw Creek.

Lands within the UGB are of moderate intensity land use and generally are of a water-related nature. Virtually all of the lands within the UGB on the south shore are within the Port of Gold Beach and include the boat basin area and the Gold Beach Airport which is located at the base of the south jetty. Commercial uses at the boat basin include a fish cannery, seafood buying station/restraunt, boat repair, commercial jet boat trip office and loading facilities, and charter boat offices and loading facilities. Public facilities include port offices, shops, boat ramp, docks, parking lots, airport office-shops, hangers and an recreational vehicle park.

Uses within the UGB on the north shore of the estuary include an industrial site which is a quarry, asphalt-cement plant, rock crusher facility; commercial jet boat trip offices and loading facility, restraunts, a resort motel/condominium complex; a boat building facility and scattered residential uses. Public facilities on the north shore in this area include the Coast Guard Station and the North Jetty recreation area. Figure 16.3.I shows the generalized land use in the uplands adjacent to the Rogue Estuary.

Land ownership along the Rogue Estuary shorelands is a combination of public and privately owned lands with a wide range of parcel sizes. Most publically owned lands are located at or near the mouth of the estuary and include the jetties, the Coast Guard Station, and the Port of Gold Beach facilities. Other small public land holdings are located upriver from U.S. 101 and are either vacant lands or are used for specialized facilities such as water pumping stations or other utilities.

Most other lands bordering the estuary are privately owned and vary in parcel size from residential home sites of less than an acre to large resource land holdings of over 1000 acres. Most of the resource lands adjacent to the estuaryare part of even larger contiguous lands that extend some distance away from the estuary. Private lands in other uses are generally on small lots of five acres or less and tend to be clustered in specific areas along the river. Figure 16.3.J .



CURRY COUNTY
ROGUE RIVER ESTUARY

NORTH

COMPREHENSIVE PLAN
Salt Marsh Vegetation

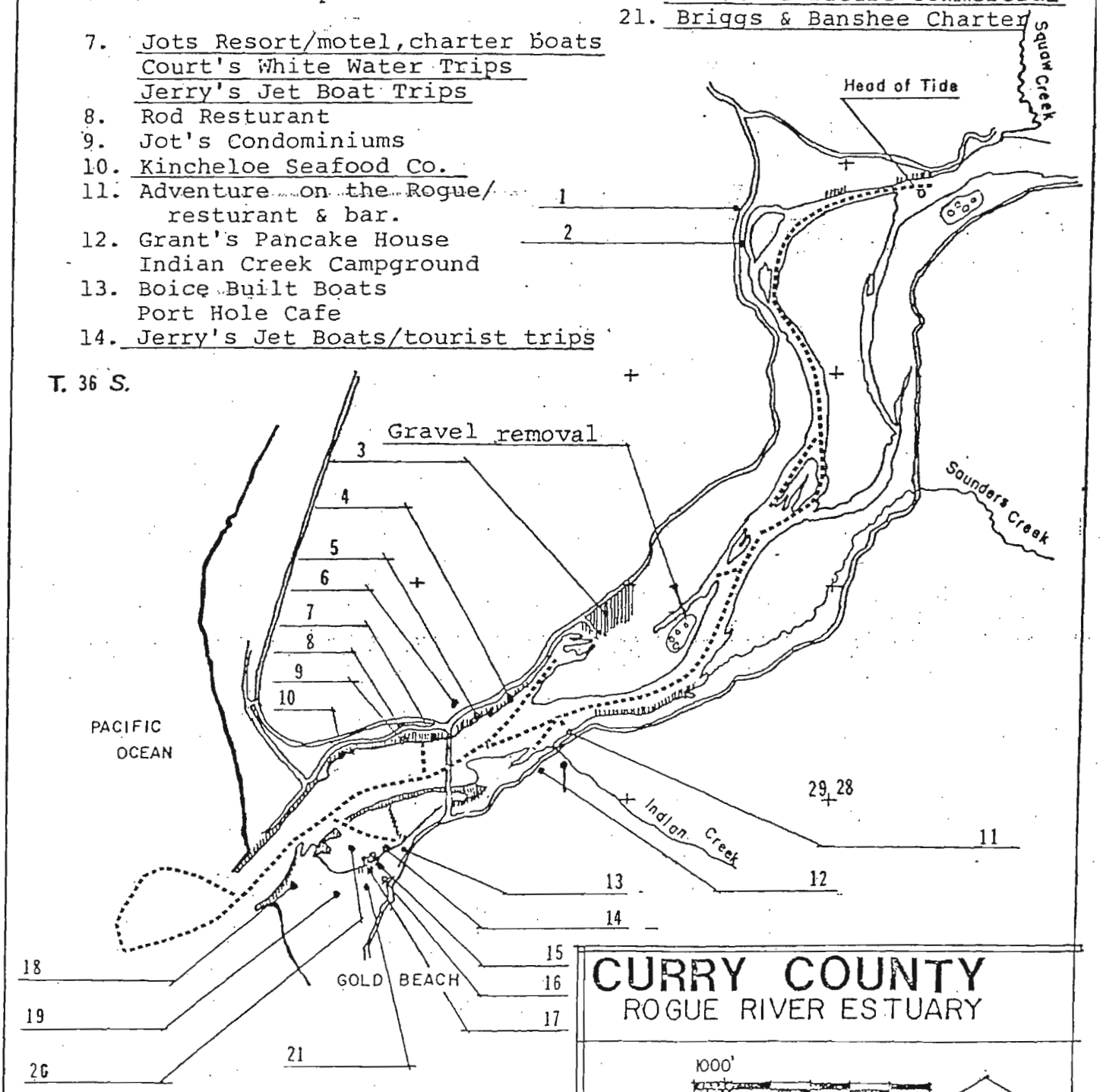
Figure 16.3.I

EXISTING COMMERCIAL & INDUSTRIAL

(Water dependent are underlined)

R.14 W.

1. Rogue Woods Apartments
2. Red Baron Apartments
3. Tidewater Rock Pit
4. Mail Boats/tourist trips
5. Wedderburn Boat Works
6. Wedderburn Apartments
7. Jots Resort/motel, charter boats
   Court's White Water Trips
   Jerry's Jet Boat Trips
8. Rod Resturant
9. Jot's Condominiums
10. Kincheloe Seafood Co.
11. Adventure on the Rogue/ resturant & bar.
12. Grant's Pancake House
    Indian Creek Campground
13. Boice Built Boats
    Port Hole Cafe
14. Jerry's Jet Boats/tourist trips
15. Rogue River Shrimp Inc.
16. Drift Inn Motel
17. Norwester/resturant, fish
18. Sandy Camp/R.V. park
19. Port's Boat repair area
20. Marina & future commercial
21. Briggs & Banshee Charter



Existing Fill Areas

Recreational boat use areas

Figure 16.3.J

CURRY COUNTY
ROGUE RIVER ESTUARY

1000'
6000'
NORTH

COMPREHENSIVE PLAN
Existing commercial/industrial

shows the general distribution of public and private lands along the Rogue Estuary.

There are various public access points to the estuary which are available on both public and private lands. Most of these access points are associated with a recreational facility such as a campground, commercial boating operation or resort facility. Public boat ramps are located on both shorelines of the estuary and in the Port boat basin so that there is adequate marine access for fishermen and recreational boating.

Several historical and archeological sites are identified as being located within the Rogue Estuary. Figure 16.3.K shows the locations of these sites in the estuary These sites are described as follows:

Site 1: The Potato Patch Battle Site, now obliterated by construction, was the scene of a skirmish between the white settlers and Indians in March, 1856.

Site 2: Hunt Rock, greatly changed by highway construction, stood overlooking the river on the north bank. It was named after a gold seeker in the 1850's, James E. Hunt.

Sites 3, 4, & 5: The original site of early settler Robert D. Hume's home is also located by the shoreland study area, as is the site of his company town of Wedderburn. The historic McClay Estate Building, built in 1920 is also located nearby.

Site 6: The Elephant Rock monolith stands in the river as a reminder to the historic past of the Rogue River/ Gold Beach area. The rock was carved with the name of a schooner of an early exploration, and dated May of 1850.

Site 7: The Hume Fish Hatchery was located on the south side of the river near Indian Creek. The hatchery site has been extensively obliterated by road construction; however, a few pilings and iron fixtures remain at the site.

Site 8: The Mary D. Hume is a historic ship that was constructed in Gold Beach over 100 years ago which has been returned to the area for restoration and public display. The ship will be permanently berthed in the Port boat basin as a historic exhibit.

Site 9: The Tututni Indian Village site stood on the south bank of the river at its mouth. This site has been completely obliterated by subsequent construction activities.

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HISTORIC & ARCHAEOLOGIC

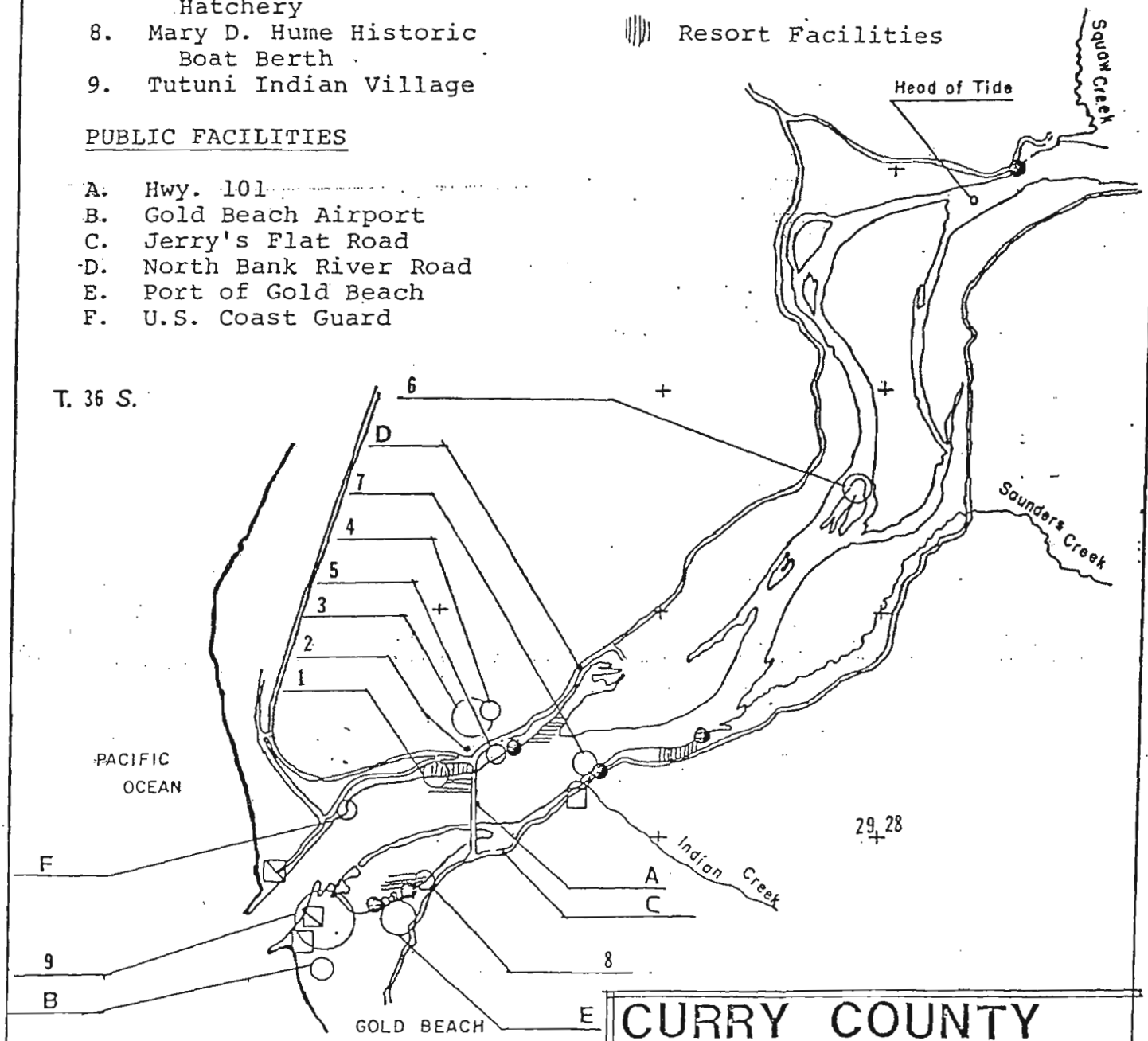
1. Potato Patch Battle
2. Hunt Rock
3. Wedderburn Oregon
4. Robert D. Hume's Home
5. McClay Estate Bldg.
6. Elephant Rock
7. Richard D. Hume's Fish Hatchery
8. Mary D. Hume Historic Boat Berth
9. Tutuni Indian Village

PUBLIC FACILITIES

A. Hwy. 101
B. Gold Beach Airport
C. Jerry's Flat Road
D. North Bank River Road
E. Port of Gold Beach
F. U.S. Coast Guard

PUBLIC ACCESS & RECREATION R.14 W.

- Public Access
- Camping
- Boat Ramp
- Jet Boat
- Resort Facilities



CURRY COUNTY
ROGUE RIVER ESTUARY

1000'
6000'
NORTH

COMPREHENSIVE PLAN
Historic, Archaeologic, Public

Figure 16.3.K

The Rogue Estuary is served by a well developed transportation and public utility system. The Rogue River provides the water source for the City of Gold Beach and surrounding areas. The city has its pump house upstream from the head of tide with the main supply line being located in the right-of-way of the Agness Road. This line provides water service to users along the south side of the estuary. Other distribution lines from this system extend across the highway 101 bridge to serve the Wedderburn area on the north side of the estuary.

Public sewage disposal is available in the City of Gold Beach and the Wedderburn area on the north side of the estuary. Within the City sewage is treated by a regional treatment plant; however, in Wedderburn treatment is by a small lagoon system located near the north jetty. Public sewage lines do not extend outside the UGB so that most development adjacent to the estuary must utilize individual septic systems.

The Rogue Estuary is bordered by a well developed system of roads for transportation of goods and services U.S. 101 crosse the lower end of the estuary at the highway bridge. This highway is the main transportation link through the county and provides access to the Oregon coastal areas to the north and California to the south. There is a two-lane paved road which is adjacent to the south shoreline of the estuary and extends over thirty miles up the Rogue River Canyon to the community of Agness. This road provides access to the City of Gold Beach for land along the south side of the estuary. Other secondary roads in the City of Gold Beach, Wedderburn, and Jerrys Flat provide direct access to the shoreline from these arterials.

The Rogue Estuary also has transportation facilities related to marine transportation in the form of a maintained shallow draft channel from the Port boat basin dock to the ocean. The channel is also authorized to serve docking facilities in the Wedderburn area; however, this part of the channel has not been maintained in recent years.

The Gold Beach airport is located on Port lands adjacent to the south jetty. This airport is a "basic utility airport" that can accommodate almost all propeller aircraft under 12,500 pounds and is the busiest airport in the county. The airport approach area and portions of the runway lie adjacent to or within the estuary boundary. The City of Gold Beach Comprehensive Plan and the Gold Beach Airport Master Plan identifycthe importance of the airport to the area. Future plans for the airport include up-grading the facility to a "general utility airport".

That part of the estuary included within the City of Gold Beach urban growth boundary is planned to be urbanized during the twenty year planning period. Urbanization of this area will probably involve further development of the port facility, development of commercially designated lands in the area, and infilling of residential lands with additional housing. This development will also involve future improvement of the public water and sewage systems, fire and police protection and roads. A final step of urbanization could involve the annexation of the Wedderburn area to the City of Gold Beach.

Economic Characteristics

The economy of Curry County has three main sectors: forest products, commercial fishing and tourism. The Rogue Estuary contributes to all three of these sectors of the local economy in various ways.

The forest industry has been a major industry in Curry County since 1940. The economy of the Gold Beach area is largely based on timber and tourism. Timber industry manufacturing consists of logging, milling and plywood production. Employment from these has been steadily decreasing due to declining timber supply, improved technology, poor transportation, and a widely fluctuating market. The lack of deep water port facilities and rail service in association with poor road access to major market areas have contributed to a lack of competitive advantage in the marketing of Rogue basin lumber.

The abundant forms of seafood found off the coast of the Rogue River basin provide a substantial resource base which supports the Gold Beach fishing fleet. Fisheries harvested include albacore tuna, bottom fish, salmon, Dungeness crab and other fish and shellfish. Of the three ports in Curry County Gold Beach received the lowest volume of fish (Corps of Engineers, 1975). Table 16.3.B displays landing figures.

TABLE 16.3.B
Commercial Fish Landings and Values
Gold Beach, 1980

Species	Pounds	Estimated Value
Chinook	116,443	$ 264,939.
Crab	69,419	45,620.
Coho	24,151	29,448.
Pink Shrimp	35,000	15,000.
Rock Fish		4,397.
Ling Cod	23,844	1,837.
TOTAL	268,857	$ 361,241.

Source: 1980 Pounds and Value of Fish and Shellfish Landed in Oregon, ODFW, 1981, CCD-EIA, 1980.

The emphasis on only two marketable species, salmon and crab, has made the Gold Beach area susceptible to fluctuations in catch resulting from shorages in supply. However, these poundage figures respresent a total increase of 27,934 pounds, or 14% increase over 1972 landings. This increase can largely be attributed to the establishment of the seafood processing plant which processes crab, salmon and shrimp. Fish products processed in the Gold Beach area are primarily marketed in the western United States. A significant portion of this is sold locally, largely to the tourist trade, thus contributing to the basic economy.

The fishing industry of the Rogue River-Gold Beach area could have considerable potential for growth if some of the indigenous problems were overcome. Current constraints include inadequate jetty design which aggravates shoaling problems and thus makes port access difficult during the peak fishing season, lack of diversified market opportunities for fish products, and competition from other domestic and foreign fishers in harvesting the fisheries resource resulting in a less diversified catch for Gold Beach fishermen (Curry County, 1978; Corps of Engineers, 1975).

The moorage facilities located in the boat basin area have 221 permanent slips plus three transient docks which can accommodate an additional 80 boats. Approximately one third of the boats are commercial vessels with the remaining two thirds being sports boats. There are currently 80 boats moored and no waiting list. Between 1980 and 1981 a number of commercial vessels have left the Rogue to permanently moor at other bays.

The Oregon Department of Fish and Wildlife (ODFW) has established a hatchery in the upper Rogue in the Lost Creek area. The hatchery is stocked with steelhead, chinook and coho species indigenous to the area. The program was established to mitigate fish losses incurred by the construction and operation of the Lost Creek Dam. According to an ODFW representative, it is not anticipated that the program will increase sport or commercial landings in Gold Beach (ODFW, personal communication).

Rough bar conditions and shoaling problems have been responsible for extensive commercial boat damage and resultant lost fishing time. At times shoaling conditions have been such that channel navigation has become impossible for shallow draft vessels.

Improvements to the Rogue River channel could be expected to dramatically increase fish landings at Gold Beach.

Recreation/tourism is an important industry in Curry County. The actual dollar value of the industry and its economic impact are difficult to estimate. It is therefore difficult to establish its overall effect on the economy of the Gold Beach area. In general, the heaviest visitation occurs during the summer months. Based on estimates of employment of persons in the travel industry, it is noted that the tourist industry increased throughout the 60's and early 70's.

The availability of anadromous fish has allowed for the development of an extensive sport fishery in and just outside of the Rogue. In Curry County almost 12% of all recreational days were spent fishing (EDA, 1973). Employment and income associated with the sport fishery varies from year to year, but continues to be an important and highly visible part of tourism and recreation in Gold Beach.

The scenic Rogue River Jet Boat trips have attracted thousands of visitors to the Gold Beach area. In 1970 approximately 35,000 persons paid for rides. This has increased to 44,900 persons by 1977 and was expected to be as high as 68,000 in 1980 (See Table 9.2.G).

Fishing and boating are just two of the many recreational activities which occur in and on the Rogue. The emphasis for development of future recreational and tourist attractions, maintenance of river navigability and an expansion improvement program for port facilities (EDA, 1973).

Sand and gravel are extracted from the Rogue River bottom in the channel dredging process. These materials have commercial value and are normally used locally. The Generalized Land Use map (Figure 16.3.L) indicates the location of aggregate operations which are located within the study area.

Marine transport within the Rogue River is maintained by the dredging of the U. S. Army Corps of Engineers. Waterborne traffic through the bay in 1969 totalled 106,000 tons of which over 90% was lumber (Percy, 1974). Since 1970 there has been essentially no shipping. Operations were halted at this time due to extensive shoaling conditions which prevented ingress and egress by shallow draft barges (COE, 1975). The main channel in the Rogue River is annually maintained by the Port of Gold Beach to its docking facilities. High dock areas are located on the north shore of the estuary in Wedderburn and in the Port boat basin; however, neither facility is presently used for shipping.

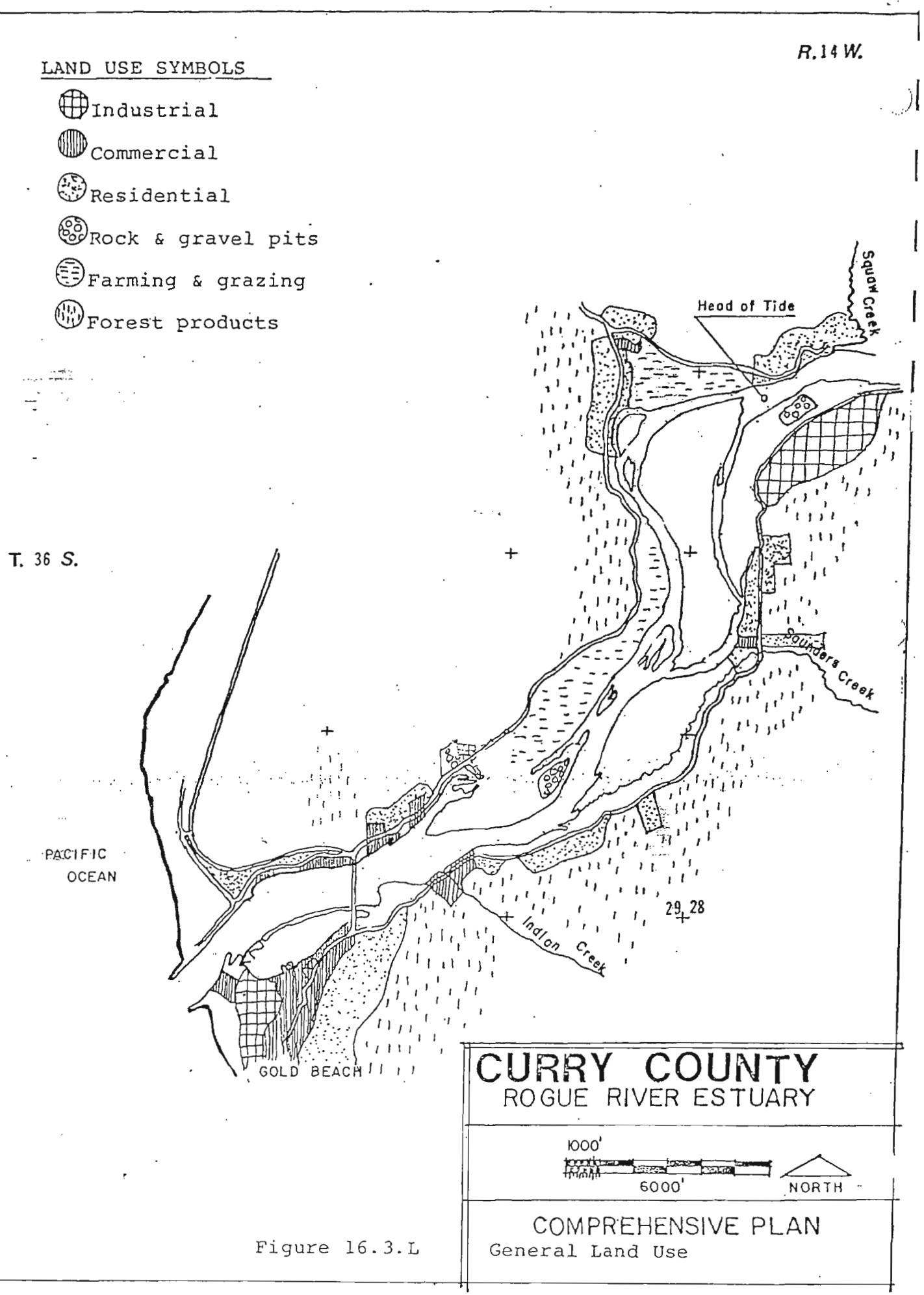

LAND USE SYMBOLS
Industrial
Commercial
Residential
Rock & gravel pits
Farming & grazing
Forest products
R. 14 W.
T. 36 S.
Head of Tide
Squaw Creek
Saunders Creek
Indian Creek
PACIFIC OCEAN
GOLD BEACH
29
28
CURRY COUNTY
ROGUE RIVER ESTUARY
1000'
6000'
NORTH
COMPREHENSIVE PLAN
General Land Use

Figure 16.3.L

Statewide Planning Goal 17 requires that, "Shorelands in urban and urbanizable areas especially suited for water-dependent (ESWD) uses shall be protected for water-dependent recreational, commercial, and industrial uses". Four criteria for identification of ESWD areas are suggested in the goal as follows:

1. Deep water close to shore with supporting land transport facilities suitable for ship and barge facilities;

2. potential for aquaculture;

3. protected areas subject to scour which would require little dredging for use as marinas; and

4. potential for recreational utilization of coastal water or riparian resources.

Three ESDW areas in the lower Rogue River Estuary have been identified. The first ESWD area is the Sause Brothers site on the north bank in Wedderburn. This site is adjacent to the authorized channel and has supporting land transport facilities. The channel adjacent to the site is not currently maintained, but may be in the future. The second and third ESWD areas are the gravel area just west of the boat basin and the boat basin parking lot/back-up land, respectively. These areas are considered to be "close" to deep water (they are also adjacent to the ten foot boat basin channel), and considered as having "potential for recreational utilization of coastal water".

The Rogue Estuary has undergone alterations of various types including the construction of jetties, dredging of navigation channels, land fills, and the use of bank protection revetment. The table below summarizes the marine construction and dredging projects in the Rogue Estuary. (See Figure 16.3.M).

TABLE 16.3.C

Project	Dimensions	Construction Completion
North and South jetties	1000' apart	1960
Navigation channel	13' deep 300' wide 3000' long	1961
Boat basin channel	10' deep 150' wide	1972
Boat basin turning basin	10' deep 600' long	1972
Bank protection (north shore)	2100' long	1972

(COE, 1975)

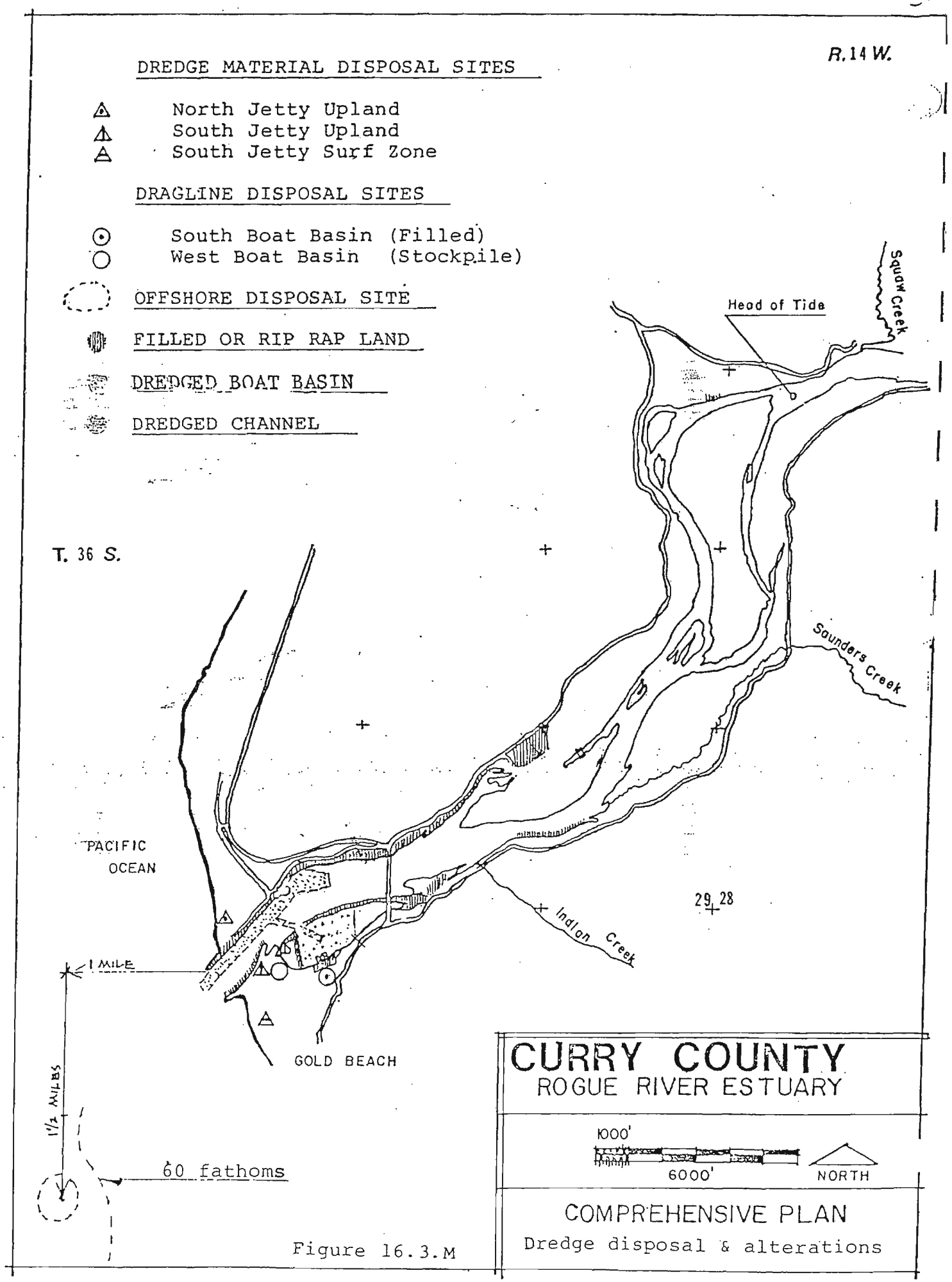

R. 14 W.
DREDGE MATERIAL DISPOSAL SITES
North Jetty Upland
South Jetty Upland
South Jetty Surf Zone
DRAGLINE DISPOSAL SITES
South Boat Basin (Filled)
West Boat Basin (Stockpile)
OFFSHORE DISPOSAL SITE
FILLED OR RIP RAP LAND
DREDGED BOAT BASIN
DREDGED CHANNEL
Head of Tide
Squaw Creek
T. 36 S.
Saunders Creek
PACIFIC OCEAN
Indian Creek
29
28
1 MILE
1½ MILES
GOLD BEACH
60 fathoms
CURRY COUNTY
ROGUE RIVER ESTUARY
1000'
6000'
NORTH
COMPREHENSIVE PLAN
Dredge disposal & alterations

Figure 16.3.M

Various areas in the Rogue Estuary have been filled for various purposes. There are 26.99 acres of landfill on submerged and submersible lands in the Rogue River estuary. Approximately 13.97 acres of landfill are located on state-owned submerged land with the remaining 13.02 acres being located on submersible lands. The majority of these landfills were constructed during the past 14 years with heavy emphasis on recreational use and bank revetment. There has been particular emphasis toward filling for heavy navigation or marine-oriented business. (State Land Board, Division of State Lands, 1972)

The cumulative effect of alteration to the Rogue Estuary has apparently altered the productivity of the estuary. The historic shoaling at the mouth of the Rogue which occurred before construction of the jetties may have increased estuarine productivity, providing more food to enable juvenile chinook salmon to attain optimal size prior to ocean migration.

A comparison of 1945 and 1975 adult scales indicate that juvenile spring and fall chinook spend much less time rearing in the Rogue estuary than they did twenty years ago. It is possible that channelization at the estuary mouth has reduced estuarine productivity and, consequently, decreased the period of residence by juvenile chinook salmon. If, as Reimers' (1973) data suggest, an extended period of estuarine rearing increases the probability that juveniles will return as adults, then extensive modifications to the mouth of the Rogue may have had significant impacts on chinook populations in the river.

Perhaps the most important characteristic of the upper estuary is change. The river boundaries and channels constantly fluctuate with seasonal variations in river flow. Although dams constructed on the upper Rogue River will have a moderating influence during flood conditions, river levels and channel courses will continue to vary.

There is a large gravel removal site on the north side of the the estuary on what was once an island. A road constructed to the area has diked off the old roadway. The gravel pit probably was formerly shrub marsh. The gravel flats are often sparsely vegetated by herbaceous plants and pioneering shrubs, such as willow, but these flats are probably more critical as a floodway than as primary production sites. The use of these areas by fish when flooded has not been documented.

The development management unit includes an area within the port boat basin that has been altered by previous activities which is proposed for fill to allow the construction of a road dike. It is proposed to construct a 1000 foot long dike that

will be 180 feet wide at the base and 50 feet wide at the top and have a riprap surface on the side facing the boat basin. The proposed dike is necessary to provide vehicular and equipment access to the south Rogue River jetty and adjacent beach as a replacement for the existing road which must be relocated or terminated on the east side of the Gold Beach Airport.

This proposed fill will remove from the estuary a mostly intertidal area which is subject to rapid accretion from sediments entering the boat basin. This is the only subtidal alteration that is currently proposed in the estuary. Biological values are minimal because of the rate of accretion. The groins recently constructed on the south jetty near this area are designed to reduce the accretion of sediment in the boat basin, which is expected to prevent the recurrence of this problem once this accreting area is filled. It may be concluded that cumulative effects of proposed alterations in the boat basin will be minimal, considering the low productivity of the altered areas and mitigation in the productive area at the east end of the boat basin.

It is also concluded that all proposed actions (approved in this management unit except where resource capability findings have geen deferred) which would alter or potentially alter the integrety of the estuarine ecosystem have been based upon a full consideration of the impacts of the proposed alteration and a demonstration of the public's need and gain which warrant such modification or loss. Therefore the proposed design of the fill has been limited to the minimal area needed for the road.

16.3.3 Rogue Estuary Plan

Estuary Boundary Determination

Figure 16.3.N shows the Estuarine Boundary and the Estuary Shorelands Boundary in the Rogue estuary. These boundaries are based on the available data for MHW from the Oregon Division of State Lands (DSL) flood elevation data from the U.S. Federal Emergency Management Agency floodplain maps, local aerial photographs, and field inspection of specific sections of the shoreline. Generally, the Estuarine Boundary is based on the line of Mean Higher High Water (MHHW) as determined by local modification of the Mean High Water line shown on the DSL maps or line of non-aquatic vegetation, whichever is higher. The MHHW line is considered to be a representative boundary for the inclusion of all intertidal areas in the estuary and as a logical separation between the "estuarine" and "shoreland" areas except in certain scattered locations where aquatic vegetation is found above the MHHW-elevations. The Division of State Lands and Corps of Engineers

claim jurisdiction up to the line of non-aquatic vegetation in the permit process (see DSL Administrative Rule on Removal and Fill, OAR 141.85-105). As the scale of the plan map does not permit these areas to be identified accurately, the DSL and Corps will identify the line of non-aquatic vegetation on a case-by-case basis during permit review.

The estuary Shorelands Boundary is based upon the seven criteria stated in Statewide Planning Goal 17 which states the following:

> "(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 temerature necessary for the maintenance of fish habitat and spawning 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) Area of exceptional aesthetic or scenic quality, where the quality is primarily derived from or related to the associaltion with coastal water areas; and
>
> (7) Coastal Headlands." [1]

These criteria are general and are intended to be interpreted specifically with each situation to which they are applied.

The estuarine Boundary was determined for the Rogue River by interpreting the boundary criteria as follows:

1. Lands considered to "limit, control, or...directly affected by the hydraulic action of the water body" are interpreted to be those lands which are located

---

[1] (LCDC, 1978)

within the floodway. The use of this criterion is based upon the best available information on the location of the Rogue River floodway. Most of the Estuarine Shoreland Boundary is defined as the floodplain boundary defined on the Rogue River floodplain maps.

2. Areas of adjacent areas of geologic instability as interpreted to mean "slump topography" are not found along the Rogue. Several areas of "critical streambank erosion" (as defined by Department of Geology and Mineral Industries) are found, and are noted on the maps.

3. "Needed riparian vegetation" has been identified in numerous areas. Most of these occur along the south bank where the effects of stream shading are greatest.

4. Three areas in the lower estuary influence the identification of the Estuarine Shoreland Boundary through the Goal criteria. These areas are the old Sause Brothers high dock in Wedderburn, and the boat basin back-up land. Due to their proximity to the authorized channels and existing development, these areas are considered to be "especially suited for water-dependent uses" (ESWD) and are included within the shorelands boundary.

Figure 16.3.N shows the location of the Estuary Shorelands boundary for the Rogue Estuary based on the above determinations.

Estuary Management Unit Designation

Statewide Planning Goal 16 requires that "local governments, special districts, state and federal agencies shall classify the Oregon estuaries to specify the most intensive level of development or alteration which may be allowed to occur within each estuary." Goal 16 further requires that "based upon inventories, the limits imposed by the overall Oregon Estuary Classification, and needs identified in the planning process, comprehensive plans for coastal areas shall:

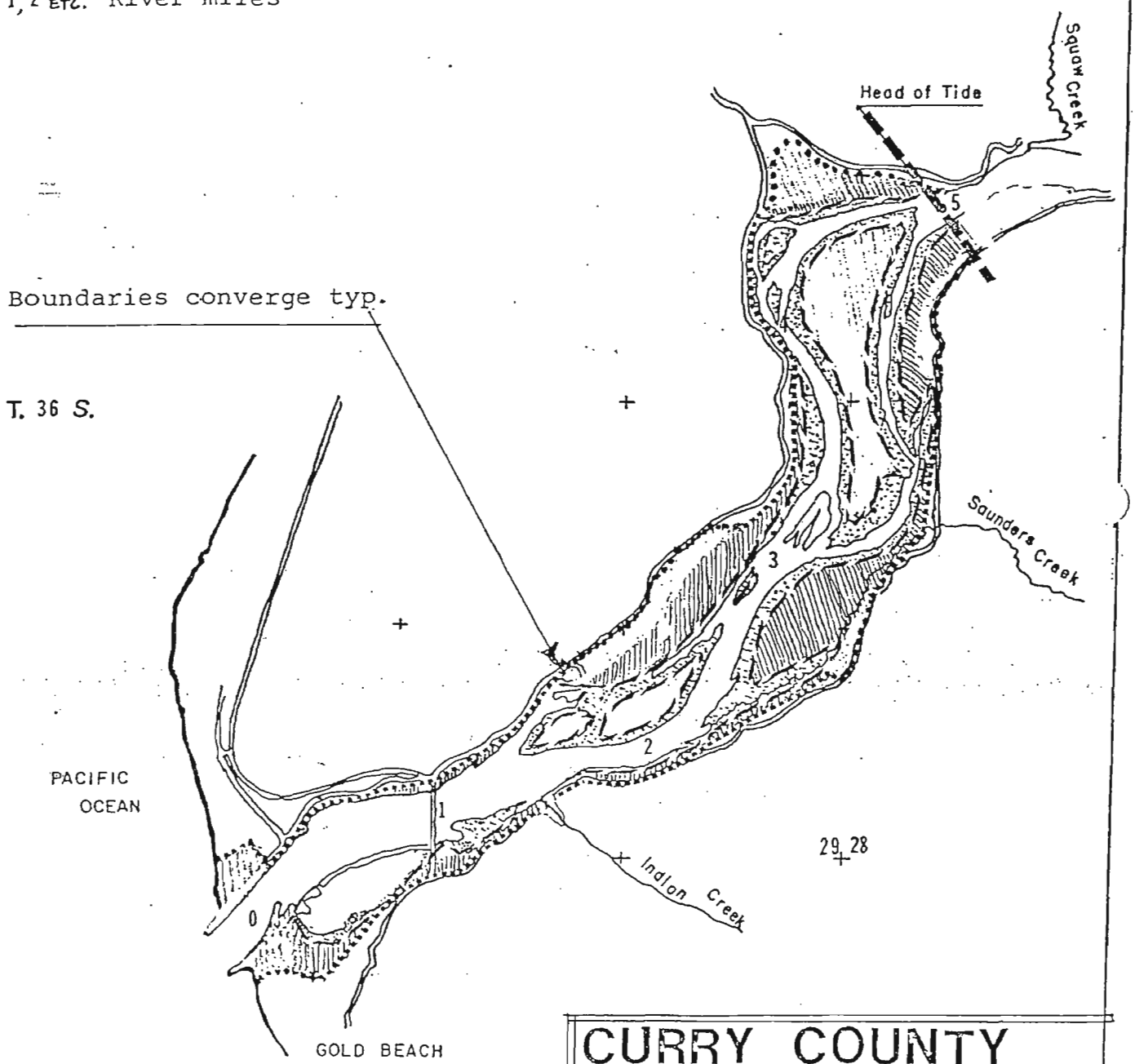
— — . Estuarine Boundary (mean higher high water datum)

..... Estuary Shoreland Boundary (100 yr floodplain bndry)

Area between estuarine boundary & ordinary water level

Area between estuarine boundary & estuary shoreland boundary

1, 2 ETC. River miles



0, 1 Marine subsystem (river miles)

1, 5 Riverine subsystem

CURRY COUNTY
ROGUE RIVER ESTUARY

1000'
6000'
NORTH

COMPREHENSIVE PLAN
Estuary Boundary

Figure 16.3.N

(1) identify each estuarine area;

(2) describe and maintain the diversity of important and unique environmental, economic and social features within the estuary;

(3) classify the estuary into management units; and

(4) establish policies and use priorities for each management unit using the standards and procedures set forth below."

Goal 16 further requires the following with respect to the management unit classification:

"When classifying estuarine areas into management units, the following shall be considered in addition to the inventories:

(1) Adjacent upland characteristics and existing land uses;

(2) Compatibility with adjacent uses;

(3) Energy costs and benefits; and

(4) The extent to which the limited water surface area of the estuary shall be committed to different surface uses."

Goal 16 specifies that three types of management units shall be applied, where appropriate, to Oregon estuaries 1) natural units, 2) conservation units, and 3) development units. These units each have specific purposes and where applied have allowed uses which are related to the intended purpose.

Natural Management Units:

Natural estuarine designations are managed to preserve the natural resources in recognition of the dynamic natural geological and evolutionary processes. Natural areas may include tidal marshes, mud-sand flats, seagrass and algae beds that because of factors such as size, biological productivity and habitat value, play a vital role in the functioning of the estuarine ecosystem. Natural areas are designated to assure protection of significant fish and wildlife habitats of continued biological productivity and of scientific research and educational needs. The following uses and activities are allowed within Natural estuarine designations:

-low intensity water dependent recreation

-research and educational observation

-navigational aides such as beacons and buoys

-passive restoration

-"and where consistent"

-aquaculture

-communication facilities

-active restoration

-low water bridges

- maintenance and protection of existing man-made features

- rip-rap limited to the protection of uses existing as of October 7, 1977. (see Policy Number 4).

Conservation Management Units:

Conservation estuarine designations are managed for low to moderate intensities of uses and activities with emphasis on maintaining the integrety and continuity of aquatic resources and recreational benefits. Conservation areas are designated for long-term uses of renewable resources that do not require major alteration of the estuary, except for purposes of restoration. Conservation areas include oyster and clam beds and fish and wildlife habitat smaller or of less biological significance than natural designations. Conservation areas also include partially altered areas adjacent to existing development of moderate intensity.

The following uses and activities are allowed within Conservation estuarine designations:

-uses allowed in "Natural" designations

-active restoration measures

-aquaculture facilities

-communication facilities

-"and where consistent with resource compatabilities of the areas and the purposes of maintaining conservation management designations"

-high intensity water-dependent recreation

-maintenance dredging of existing facilities

-minor navigational improvements

-mining aggregate rock and mineral extraction.

-water-dependent uses requiring occupation of water surface area by means other than fill

-bridge crossings

- dredged marinas and boat basins without jetties or channels (use natural channels)

- waste discharge meeting state and federal water quality standards.

Shallow Draft Development Management Units:

Shallow Draft Development areas are managed for navigation and other water-dependent uses, consistent with the need to minimize damage to the estuarine system. Shallow Draft Development areas include: areas suitable for shallow draft navigation, including shipping and access channels or turning basins; in water dredged material disposal sites; 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.

The following uses and activities are allowed within Shallow Draft Development designations:

- navigation;
- water-dependent commercial;
- water-dependent industrial
  - "and where consistent with resource capabilities of the areas and the purposes of this management designation".
- uses allowed in "Natural" and "Conservation" designations;
- water-related and non-dependent, non-related uses not requiring fill; and
- mining, aggregate rock and mineral extraction.

Curry County has identified a shallow draft development management unit, and four natural management units in the Rogue Estuary. Figure 16.3.0 shows the location of these management units within the estuarine boundary. Each of these management units has a specific location and description which is discussed below.

Shallow Draft Development Management Unit:

This designation includes the Army Corps of Engineers authorized dredged entrance channel, turning basin, and boat basin access channel as well as the existing dredged small boat basin and areas of planned expansions within the boat basin. Within this management unit the Port of Gold Beach is proposing to construct a road access dike across the western end of the boat basin for access to the south Rogue River Jetty. The proposed dike will involve approximately two acres of fill in an intertidal area which is essentially barren sand and gravel substrate of minimal biological productivity. The proposed dike is determined to be a water dependent use because of the necessity to provide vehicular and equipment access to the south jetty for maintenance of

the jetty as a navigation aid and to provide ocean access for sportfishing and swimming. This use of dredging and fill for a water dependent road are found to be consistent with the development management unit of the estuary and the already altered character of the area based on the following findings:

A. Water dependent use:

1) The proposed dike will be a southerly extension of the south Rogue River jetty which is an existing improvement for the navigation channel into the Rogue River.

2) The dike is needed to provide vehicular and equipment access to the jetty for periodic maintenance to the jetty itself and the pile dike in the river channel.

3) The road will also provide access to the jetty and adjacent beach for water dependent recreation such as fishing and swimming and will maintain an identified public beach access point.

B. Public Need:

1) There is a public need for the proposed dike and road because when the existing road is terminated the boating public will be endangered by failure to adequately maintain the jetty as a navigational aid.

2) There is a public need for the proposed dike and road to provide vehicular access to the jetty and adjacent beach for water dependent recreation such as sport fishing and swimming.

3) When the existing road is terminated, the public will be denied ocean access at an identified recreational site which will create a hardship for local citizens and tourists in using the public beach.

4) The existing road must be relocated to a point which is a distance greater than 250 feet from the Gold Beach Airport runway by FAA order.

5) The Gold Beach Airport is a public airport which serves central Curry County and the City of Gold Beach as a needed transportation link for commerce and the travel of persons.

C. Alternatives

1) Alternatives for the proposed road dike project which would involve fill:

   a) relocation of the runway away from the existing road;

   b) reduce the length of the existing runway;

   c) limiting access over the existing road to times when the airport is not in operation; and

   d) construction of the road on a pile bridge.

2) Alternative a) above is impossible because the land immediately to the south of the airport is utilized as a school site and the controlled airspace for aircraft approach cannot be extended toward the school buildings and playing fields.

3) Alternative b) above is to shorten the length of the runway to provide the required distance from the existing road, however, this alternative would result in restricting the use of the airport by certain size and weight aircraft and would increase the probability of airplane crashes.

4) Alternative c) above would consist of limiting the use of the existing road to vehicular access only for maintenance of the jetty, at such times there is a necessity for repair; however, this alternative would essentially eliminate recreational access to the jetty and beach and would result in the suspension of airport use at such times the road is in use. Use of the road for regular maintenance could be accommodated by scheduled closure of the airport for landings and take-offs but periods of extensive use such as repair of the riprap or pile dikes or disposal of dredged material near the jetty would result in closure of the airport for lengthy periods resulting in economic and personal hardship to users.

5) Alternative d) above would propose the construction of a piling bridge over the intertidal area instead of a fill. This is an impractical alternative because the piling structure necessary to support the road must be exceedingly strong to support heavy loads with a density of piling that would totally disrupt the intertidal area and destroy habitat value.

Therefore it is concluded that this proposed action in the designated development management unit which could potentially alter the integrety of the estuarine environment has been based upon a full consideration of the impacts of the proposed alteration and a demonstration of the public need and gain which warrant the proposed modification.

Estuarine Boundary (mean higher high water datum)

R. 14 W.

SHORELAND PLAN DESIGNATIONS

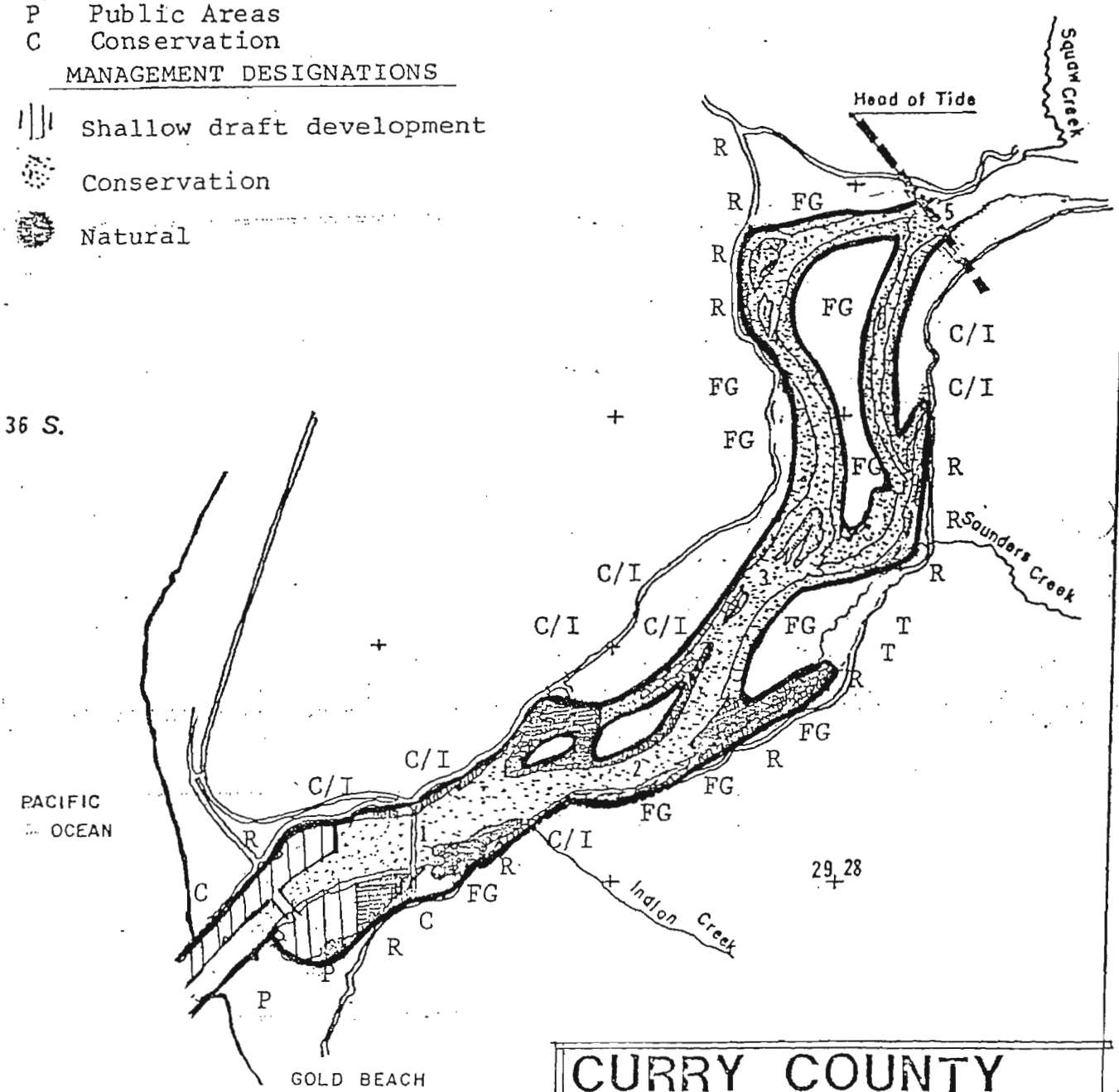
T Timber
FG Forest-Grazing
R Residential
C/I Commercial-Industrial
P Public Areas
C Conservation

MANAGEMENT DESIGNATIONS

Shallow draft development

Conservation

Natural



CURRY COUNTY
ROGUE RIVER ESTUARY

1000'
6000'
NORTH

COMPREHENSIVE PLAN
Management Designations

Figure 16.3.0

Conservation Management Unit:

The shoreline gravel areas in the middle and upper estuary are important for amphipod production. Since the channel is scoured by high flows during winter, these protected areas are probably critical for overwintering adult amphipods. Alteration of these gravel habitats will have an adverse impact on the amphipod populations, which could, in time, influence production of juvenile salmonids. This area is also the natural channel for upriver travel and is also utilized for the extraction of gravel at various sites. Minor dredging occurs annually to maintain the natural channel over the shallow riffles and allow up-river travel in jet boats.

Natural Management Unit #1

This is the intertidal areas at the eastern end of the Port of Gold Beach Boat Basin which includes a high diversity of habitat types, including sand and cobble/gravel shores, mud and mixed sand/mud flats, algal beds, and low fringing saltmarsh. Such areas provide shallow habtitats where small fish can rear and birds feed and may make a significant contribution to the productivity of the estuary. The boat basin provides a protected, highly saline environment within the Rogue estuary...Algal beds, mudflats and fringing marsh along the shore within the basin may be especially important in this natural unit. This area may also be utilized for future mitigation/restoration projects which will further enhance its productivity. Future improvements to U.S. 101 at the southerly end of the Rogue River Bridge may involve re routing the Agness Road under the bridge for better and safer traffic circulation at the 101-Agness Road intersection. Routing of the road under the bridge will be on shoreland adjacent to this management unit. It is anticipated that there will be no alteration of the natural area due to this construction; however, a final determination will be made once plans are prepared for the road relocation.

Natural Management Unit #2

At the lower end of the riverine subsystem (RM 1.2) on the south shore is an intertidal flat and island. The intertidal island was formerly part of a peninsula that extended below the bridge and separated a slough from the main river. The slough emptied into the area currently occupied by the boat basin...Akins and Jefferson (1973) described part of the island as an intertidal gravel marsh characterized by spike rush (Eleocharis sp.) and scattered forbs growing on a gravel substrate. Unlike the densely vegetated high marshses of bays and sloughs in many Oregon estuaries, this marsh type is unique to a few south coast estuaries. The largest remaining example in the Rogue is located in the low salinity intertidal zone of this island. The gravel marsh is an unique habitat and serves to maintain diversity in the estuary. The algal beds and benthic organisms associated with the fine sediment provide food for fish. Although the island and much of its

sediment again accumulates and the marsh, algal, and benthic communities are renewed when the river subsides. This periodic scouring may also contribute important organic material to the estuarine system. If the island were stabilized or removed from seasonal and tidal cycles, vital and productive habitat would be lost. (ODFW, 1979).

Natural Management Unit #3

Another major intertidal area is located on the north shore, slightly upstream. Mail Boat Point, the tip of the much larger island, is a site where juvenile salmon and cutthroat congregate. Peak abundance occurs during July and August (Creamer and Martin, 1978). Mail Boat Point has a gravel substrate like other shores and flats in the Rogue River Estuary, but its location between the river channel and the mouth of the north slough slows the current and increases sediment deposition. There are beds of Corophium amphipods in the fine sand and mud. Productive algal beds occur on the gravel and fringing low marsh is found along the shore. (ODFW, 1979)

Oregon Department of Fish and Wildlife believes that the habitats at Mail Boat Point, the north slouth, and the island dividing the river channel from the slough should be preserved. The shallow, protected waters of the slough are productive and should not be distrubed. The eddies and slack water areas around the island are productive habitats for benthic organisms and the fish that feed on them. To protect the dynamic relationship between river and island, potential river channels should not be blocked and island banks should not be diked.

Natural Management Unit #4

The mouth of Snag Patch Slough is on the south shore (RM 1.5) and leads directly from Flood Creek during summer. Snag Patch Sough is the most densely vegetated marsh in the estuary. It has a mud substrate and is bordered by low fresh marsh. This slough provides excellent habitat for juvenile fish, terrestrial wildlife, and waterfowl (Riikula, 1977). Saunders Creek enters the estuary at RM 1.9 into the south channel of the river. During high winter flow, Saunders Creek also empties into Snag Patch Slough through a channel that cuts through a gravel flat used as a pasture. There have been no major alterations of the habitats of Saunders Creek channel and Snag Patch Slough. Snag Patch Slough and its protective marsh are valuable habitats for aquatic and terrestrial species and should be protected (ODFW, 1979).

Mitigation and Restoration

The Rogue Estuary lacks diked intertidal marsh areas and other sites of biological potential which are suitable for the creation or restoration of intertidal habitat in fulfilling mitigation requirements.

The best habitat areas in the estuary have been designated as Natural Management units to ensure that these areas

will not be lost to the overall integrity of the estuarine ecosystem. Within these areas there is the potential for additional enhancement and restoration of habitat as part of future dredge or fill activity. The potential for future dredge and fill activity during the twenty year planning period is probably limited to the authorized channel and Port Boat Basin. These planned activities are intended to be mitigated by futher enhancement of the habitats in the eastern part of the boat basin (natural management unit #1). Future dredge or fill projects other than the Port development plans will have to include suitable mitigation. Other potential mitigation or restoration sites cannot be identified with certainty at present. However, it may be possible to identify upland areas next to the estuary above the Highway 101 bridge in sheltered areas which could be lowered to intertidal level. The critical question is whether such mitigation actions would be reasonably permanent in view of the dynanic nature of the river system. Three areas that could be examined are adjacent to natural management units on the south bank immediately above Highway 101 bridge, at Snag Patch Slough and around Mail Boat Island/North Slough. The Division of State Lands suggests that areas of low pasture along the north bank could also be examined as possible mitigation sites (personal communication, Earl Johnson, DSL). Restoration of areas subject to excessive sedimentation or erosion is a possibility in some areas upstream. However, such actions may not qualify for mitigation credit under Division of State Lands' Administrative Rules for Estuarine Mitigation unless additional estuarine area is created from upland, or unless they qualify as "enhancement" (see OAR 11-85-242(7) and (8)).

Dredge Material Disposal

The navigation channel at the mouth of the Rogue River and maintenance dredging within the Port Boat Basin require the disposal of dredged materials in authorized sites or in authorized fill areas. Historically dredged material has been used to construct fill areas on the north shore of the river and in the vicinity of the port facilities.

The annual maintenance dredging program by the U.S. Army Corps of Engineers has disposed of dredge material in the ocean off Gold Beach. The authorized disposal site is approximately one mile offshore from Gold Beach at a depth of sixty feet. This site has accepted all dredged material from the dredging of the main channel for many years and is proposed as the principal disposal site for this annual maintenance program.

Figure 16.3.M shows the Rogue River and Port Boat Basin project area and other authorized dredged material disposal sites. This project area presently has three authorized pipeline disposal sites which are located as follows:

1) at the base of the north jetty which fills an upland shoreline area north of the jetty;

2) at the base of the south jetty which fills an upland shoreline area south of the jetty; and

3) an intertidal surf zone disposal area located at the beach just south of the south jetty which allows wave transport disposal of material.

The project area also has two dragline disposal sites which are located as follows:

1) an upland site located at the south end of the boat basin; and

2) an upland site located at the west end of the boat basin.

"Note: This site will be partially filled for the relocation of the jetty road, which may limit its capacity for future dredged material desposal, however, it will remain as a DMD site at least until the first comprehensive plan update."

The dredged material at the southern dragline disposal site has been used to raise the elevation of this area above the floodplain and is now used as a parking lot. Dredged material is frequently stockpiled at the western dragline disposal site and then subsequently sold for upland fill and aggregate.

Pipeline dredging of the boat basin utilizes either of the two authorized disposal sites at the south jetty. The Port has at times filled upland areas south of the jetty and also disposed of material in the surf zone at this site for their various channel maintenance projects. it is anticipated that these presently authorized dredge disposal sites will be adequate to handle all future dredging needs for the planning period.

Zoning and Plan Implementation

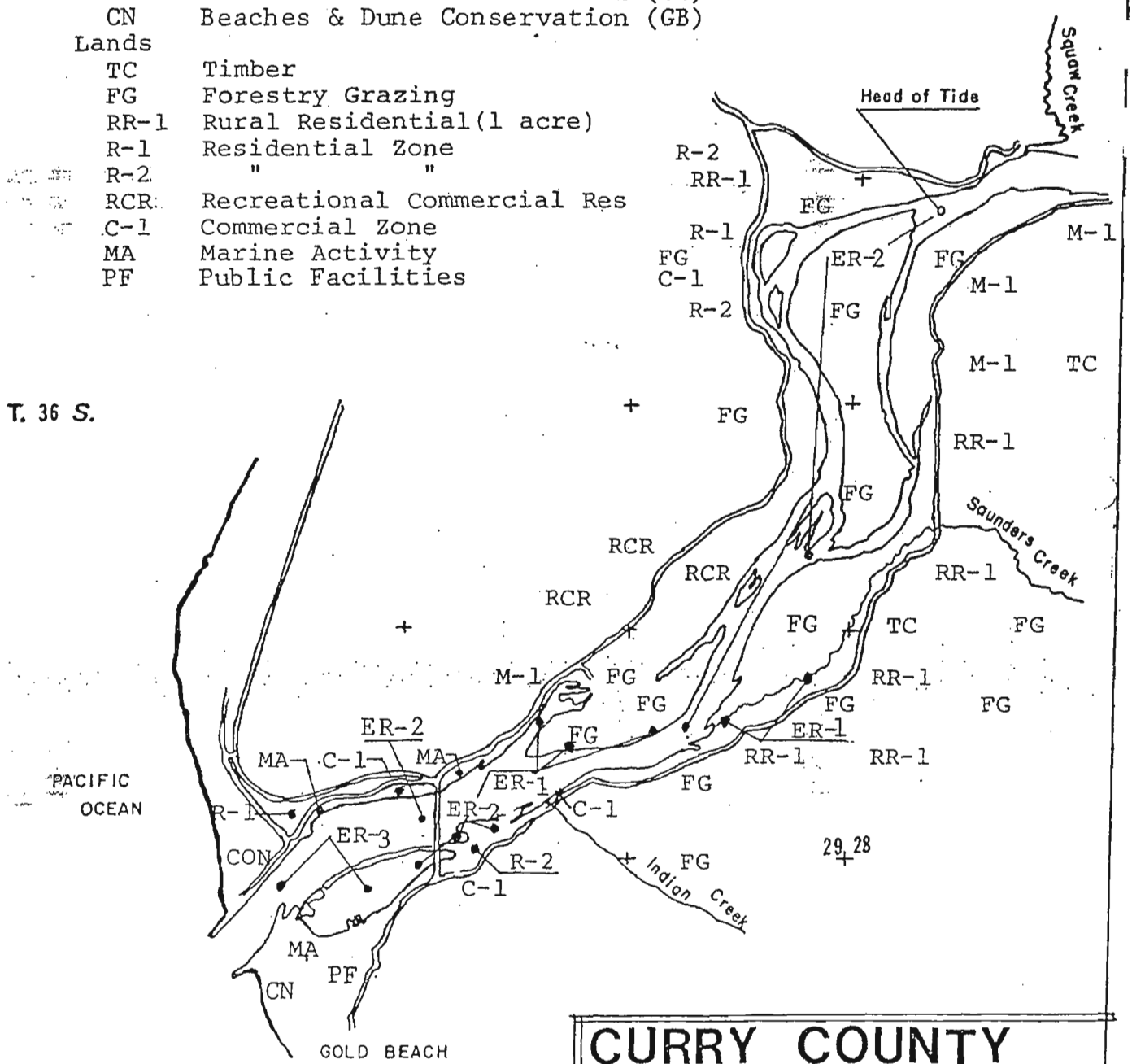
The comprehensive plan for the Rogue Estuary is implemented by the Zoning Ordinances for Curry County and the City of Gold Beach. The principal zone utilized by these ordinances to implement those aquatic areas within the Estuary Shorelands Boundary is the Estuary Resource (ER) zone. This zone specifies the outright and conditional uses allowed on the aquatic areas of the estuary by management unit designation. The uses specified in this zone are consistent with the resource values and characteristics of the defined estuary management units.

ZONING CLASSIFICATION

Aquatic (ER= estuary resources)
- ER-1 Natural
- ER-2 Conservation
- ER-3 Development

Shoreland
- CON Beaches & Dune Conservation (CC)
- CN Beaches & Dune Conservation (GB)

Lands
- TC Timber
- FG Forestry Grazing
- RR-1 Rural Residential(1 acre)
- R-1 Residential Zone
- R-2 " "
- RCR Recreational Commercial Res
- C-1 Commercial Zone
- MA Marine Activity
- PF Public Facilities



CURRY COUNTY
ROGUE RIVER ESTUARY

1000'
6000'
NORTH

COMPREHENSIVE PLAN
Zoning Map

Figure 16.3.P

Upland areas bordering the estuary are designated for various uses ranging from resource use (forestry, agriculture, etc.) to relatively intense use (commercial, industrial, etc.) These plan designations are implemented with the various zones described in the city and county plans. Upland areas in proximity to the development management unit of the Rogue Estuary are designated as ESWD areas which are implemented by the Marine Activity Zone.

Curry County and the City of Gold Beach have designated those upland areas adjacent to estuaries which are ESWD as being "Marine Activity" areas. The Marine Activity designation is implemented with Marine Activity zones that have uses which are consistent with existing or planned activities and reserve the area for water-dependent or water-related activity. Figure 16.3.P shows where these designations have been applied.

16.4 CHETCO ESTUARY

16.4.1 Introduction

The Chetco Estuary is located five miles north of the Oregon-California border at the base of the Klamath Mountains. It is one of the smallest estuaries in Oregon. The City of Brookings (population about 3,384) is on the north side of the estuary, and Harbor (population about 3,000) is on the south side. The Chetco Estuary is strongly influenced by seasonal fluctuations in river discharge. It has also been improved for navigation by jetties, marinas, and a dike.

The steep gradient of the Chetco River bed severely restricts the extent of tides, and mountainous terrain limits the size of the estuary. Although the Chetco drainage area (359 mi^2) is comparable to north coast estuaries like Yaquina, Siletz, and Nestucca, its surface area (about 175 acres) is much smaller. The estuary is mostly subtidal. The ratio of submerged land to tideland is greater than any other Oregon estuary (DSL. 1973).

The Oregon Land Conservation and Development Commission (1977) classified Chetco as a shallow draft development estuary under Oregon Administrative Rule (OAR 660-17-000). The classification permits navigation and water-dependent development and requires protection of important habitats, productivity, water quality, and unique features.

Table 16.4.A lists some of the general statistics of the Chetco River and Chetco Estuary.

Table 16.4.A

Chetco River - Chetco Estuary

Parameter	Dimensions
Chetco River Length	58.0 miles
Chetco River drainage basin area	359.0 square miles
Chetco River (RM 0.0) mean annual discharge	3,700 cubic ft./sec.
Chetco River (RM 10.7) maximum flow of record	65,800 cubic ft./sec.
Chetco Estuary total area	175 acres
Chetco Estuary tideland area	39 acres
Chetco Estuary submerged area	136 acres

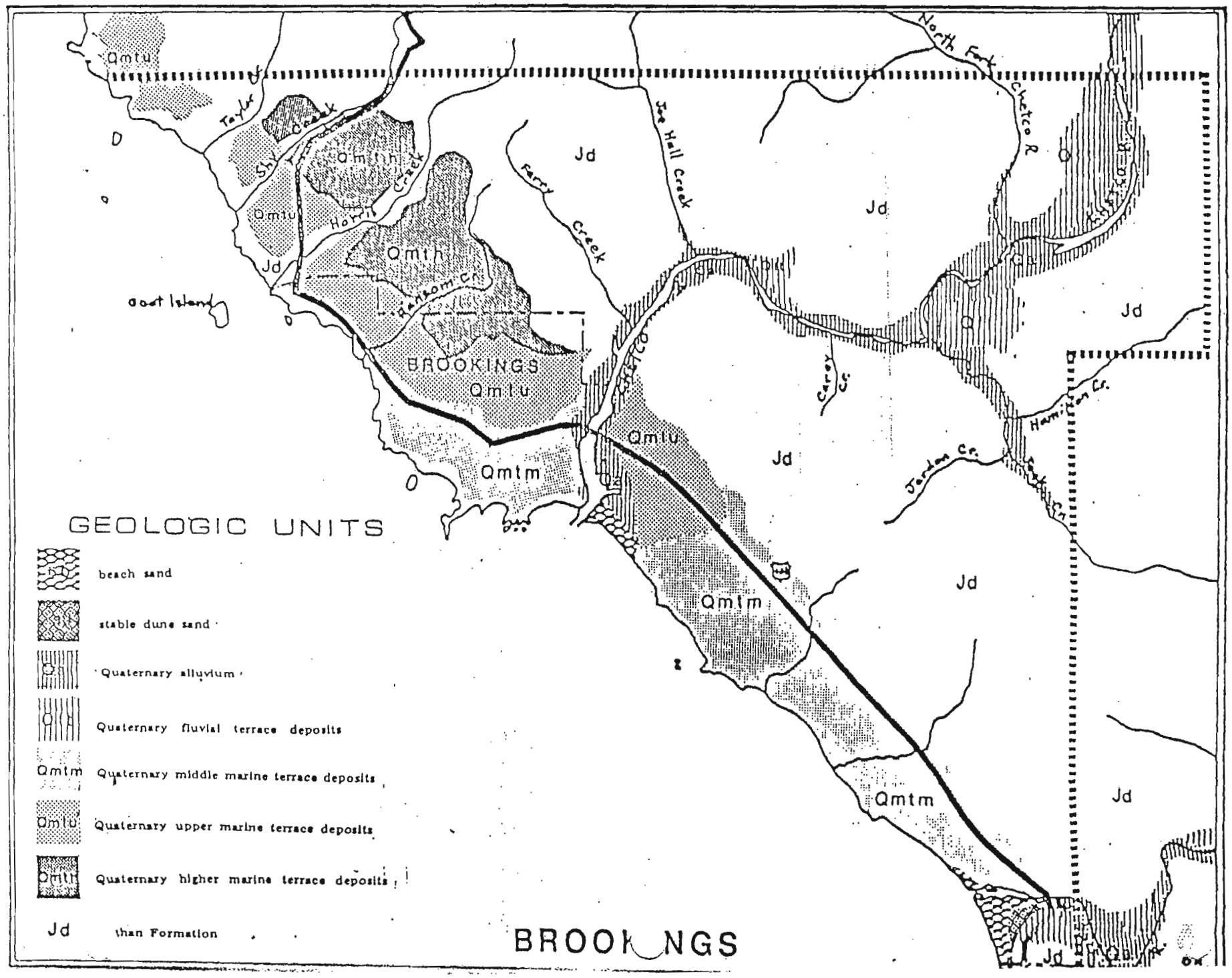
16.4.2 Inventory

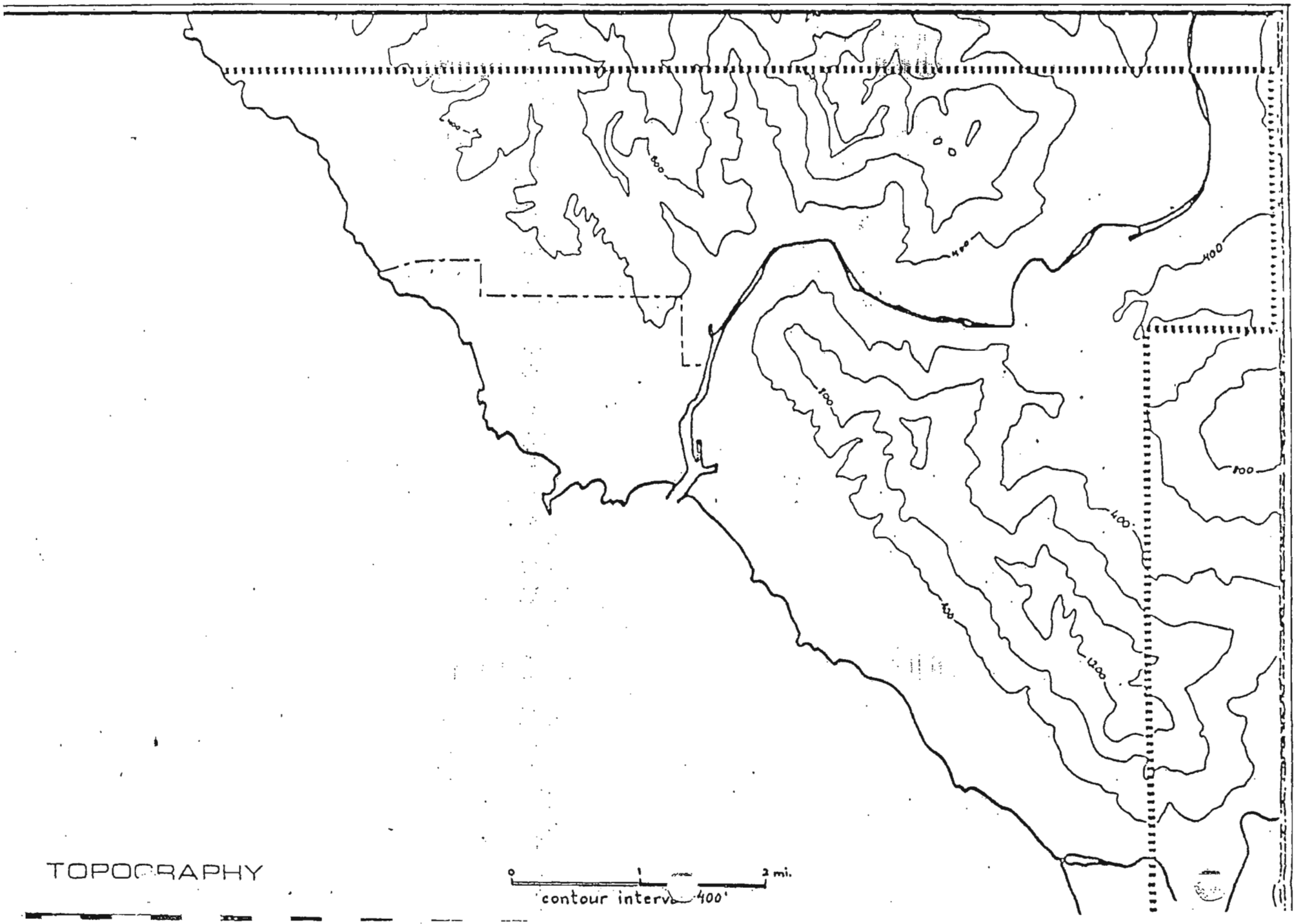
The Chetco Estuary is basically a river channel which lacks the bay and slough subsystems typically found in other Oregon estuaries. A marine and riverine subsystem can be defined with an aribtrary line of separation being located at the Highway 101 bridge.

Geographic-Geological Characteristics

The Chetco Estuary is classified by physiographic and geomorphic characteristics as being a "drowned river valley" estuary. Drowned river valley estuaries are those estuaries which were formed when the lower portion of a river valley was inundated by a rise in sea level. The coastal plain is particularly narrow in Curry County and the Checto River has a steep gradient at the coast so that the rise of sea level has limited the penetration of tidal influence in the river valley. This combination of geomorphic factors has caused the estuary to be relatively small in length and area.

The Chetco Estuary is located within the Klamath Mountain geologic province. This geologic province is typified by highly faulted and folded metamorphic rock formations of Mesozic age. The folding and faulting of rocks is relatively complex and erosional dissection of the terrain has resulted in the characteristically steep topographic nature of the province. Figure 16.4.A is a geological map of the area which shows the bedrock rock formations in the vicinity of the estuary.


GEOLOGIC UNITS
beach sand
stable dune sand
Quaternary alluvium
Quaternary fluvial terrace deposits
Qmtm Quaternary middle marine terrace deposits
Qmtu Quaternary upper marine terrace deposits
Qmth Quaternary higher marine terrace deposits
Jd than Formation
BROOKINGS
Qmtu
Qmth
Qmtm
Jd
Taylor Creek
Shy Creek
Harris Creek
Ransom Cr.
Goat Island
Ferry Creek
Joe Hall Creek
North Fork Chetco R.
Chetco R.
Carey Cr.
Hamilton Cr.
Jordan Cr.
Fork Cr.



TOPOGRAPHY

Topographically the estuary lies in a relatively narrow valley that trends north-south for approximately three quarters of the length of the estuary and then turns to an east-west orientation about one mile below the head of tide. Inland to river mile 8, the river valley consists of an alluvial plain with an average width of one quarter to one half mile. To the east lie the Klamath Mountains which rise to between 2,000 and 5,000 feet. See Figure 16.4.B).

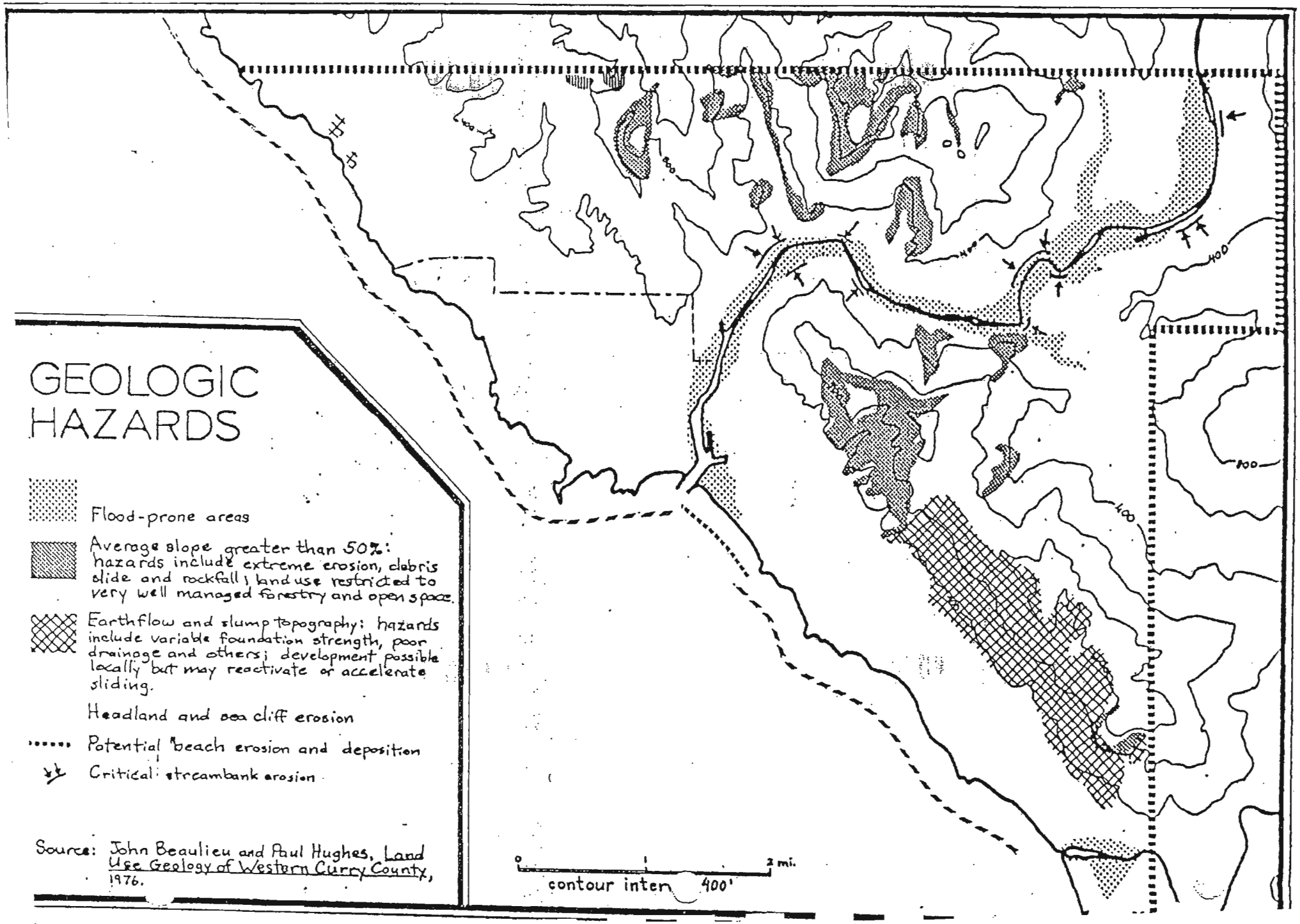
The topography of the area explains in part the type of growth which has occurred in the Chetco Valley. Only a narrow strip of land along the coast and part way up the Chetco River is suitable for agricultural uses. The protrusion of Chetco Point, a rocky headland to the west and about eighty feet high, gives the river entrance and harbor protection and accounts for the Chetco River's development as a major water transportation center on the South Oregon Coast. The rugged nature of the land around Brookings has precluded the construction of a major east-west highway or railroad.

Bottom sediments in the estuary are predominantly medium sand and fine gravel, with a low organic content (1.2%). Water flows are lowest in summer and fall, the long-shore current carries material around the south jetty and into the mouth of the Chetco Estuary where a sand shoal forms annually. At the same time in other parts of the bay, shoals form from materials transported from upstream.

Sedimentation processes in the Chetco Estuary and other small, south coast estuaries show dramatic seasonal variations with hydrographic conditions. Most sediments in the estuary are derived from upstream sources (COE, 1973). During high winter flows, heavy loads of suspended sand and gravel are flushed into the ocean. As flows decrease in the spring however, shoaling rapidly occurs at the mouth of the boat basin and in the entrance channel. Gravel and coarse sands from the river accumulate in the boat basin (Montagne-Bierly, 1978). Shoaling at the channel forms a shoal of marine sands, which are transported in the ocean by the southward littoral drift during northerly winds in spring and summer. The shoal typically develops on the south side of the north jetty and at the tip of the south jetty (COE, 1973). These shoal areas are the sites of annual maintenance dredging by Corps of Engineers.

The annual decrease in fiver flow allows accumulation of a thin layer of silt over the gravel base in the upper estuary. This surface layer of mud is quickly flushed from the estuary as the rainy season begins and river flow increases (COE, 1975).

Geologic hazards in the estuary include: 1) flooding, 2) streambank erosion; and 3) areas of geological unstability. Figure 16.4.C shows the 100 year floodplain of the Chetco River, those sites at which there is streambank erosion, and areas when there is potential for geological unstability. The entire Chetco Estuary is located within the 100 year flood plain of the river.


GEOLOGIC HAZARDS
Flood-prone areas
Average slope greater than 50%: hazards include extreme erosion, debris slide and rockfall; land use restricted to very well managed forestry and open space.
Earthflow and slump topography: hazards include variable foundation strength, poor drainage and others; development possible locally but may reactivate or accelerate sliding.
Headland and sea cliff erosion
Potential beach erosion and deposition
Critical streambank erosion
Source: John Beaulieu and Paul Hughes, Land Use Geology of Western Curry County, 1976.
0
1
2 mi.
contour inter 400'
400
400
400

Streambank erosion is known to have occurred along both shorelines of the Chetco River within the estuary. The most significant areas affected by this hazard are located at the bends in the river. Those areas affected by the problem are generally protected by rip-rap placed at the river bank.

Hydrological Characteristics

The Chetco Estuary, like the other estuaries in the county is dominated by river flow. The Chetco River originates at an approximate elevation of 4,000 feet in a remote region of the Klamath Mountains known as the Kalmiopsis Wilderness Area. The river drops fairly uniformly for 58 miles through heavily-wooded, steeply-sloped and narrow canyons to its confluence with the Pacific Ocean at Brookings. In total, Chetco River and its network of tributaries drain an area of 359 square miles.

Stream flow data is limited for the Chetco River because the stream lacked a gauging station until October, 1969. The extreme seasonal variation in rainfall is mirrored by seasonal fluctuations in stream flow. Over 90% of the total annual yield usually occurs from November through April while the August and September flows yield only one percent of the total. The minimum recorded monthly discharge from the Chetco River is 47.7 cfs, recorded in September, 1931. (See Figure 16.4.D)

Much of the freshwater from the Chetco River is committed to municipal water uses through the appropriation of water rights with the City of Brookings, the Harbor Rural Water District, and various individuals having rights to extract water above the head of tide.

In 1964, the Oregon Fish and Wildlife Department recommended minimum flows for fish life assumed the same status as any other water rights filed with the State. As is the case with other rights, the minimum flow requirement was established for a particular location (in this case near the mouth of the North Fork of the Chetco River). While it takes precedence over subsequent rights filed for upstream locations, it does not affect rightholders downstream. This committment of water flow totals 80 cubic feet per second.

The bathymetry of the estuary varies with the location of the river channel and the location of the gravel bars. Cross sectional profiles of the estuary were made in the summer of 1975 to determine the bottom configuration. These profiles indicated that the bottom was generally deeper than -10 feet (MLLW) downstream from the entrance to the boat basin. Maximum depths between Snug Harbor and the boat basin were between -4 and -10 feet (MLLW) and above Snug Harbor depths were 0 to -3 feet (MLLW) (Slotta and Tang, 1976). Thus the Chetco Estuary is basically a gradually shoaling channel between its mouth and the head of tide.

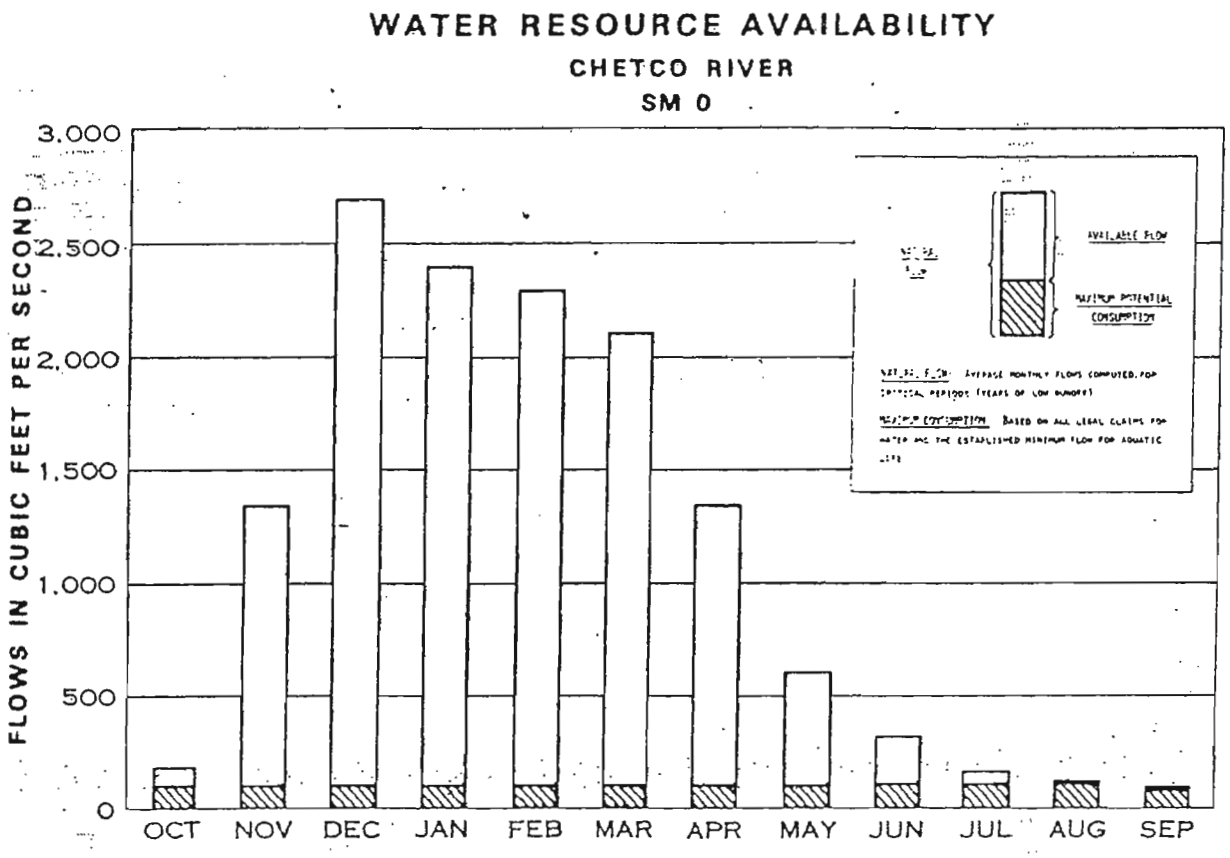

WATER RESOURCE AVAILABILITY
CHETCO RIVER
SM 0
FLOWS IN CUBIC FEET PER SECOND
3,000
2,500
2,000
1,500
1,000
500
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
AVAILABLE FLOW
MAXIMUM POTENTIAL CONSUMPTION

Figure 16.4.D.

The mean high tide level at the mouth of the Chetco Estuary is +6.3 feet above MLLW. Other tidal datums for the Chetco Estuary are as follows:

	Feet
Extreme High Tide	10.00
MHHW	7.00
MHW	6.30
MSL	3.75
MLW	1.20
MLLW	0.00
Extreme Low Tide	-3.00

The hydrology of the estuary is affected by the river flow and penetration of the tide upstream is limited by the volume of river discharge. The tidal prism for the Chetco Estuary has been calculated for low river flow conditions at 3.2×10^7 cubic feet and for high river flow conditions at 2.6×10^7 cubic feet (Slotta and Tang, 1976). It is apparent that during high river run-off the tide has less effect on the estuary and fresh-water flow is dominant over tidal action.

There are very few measurements of salinity and water quality in the Chetco Estuary. The up-river penetration of salt water has not been determined but must fluctuate dramatically with river flow and during high flow the estuary is either entirely fresh water or stratified with fresh water flowing over a salt water wedge at the bottom. Other water quality measurements in the estuary include a few samples taken periodically by DEQ just above the highway bridge. These measurements indicate that the incoming water from the Chetco River is generally saturated with dissolved oxygen (D.O.). Estuarine water quality is excellent since the water is low in hardness, clear, cold and slightly basic. It is also low in dissolved solids, turbidity and suspended soils.

Water quality studies indicate that the Chetco River estuary has satisfactory water quality throughout all seasons; the only possible exception being during the continuous dry summer months and high recreational use of the boat basin (Slotta and Tang, 1976).

The Chetco Estuary has been found on occasions to have low D.O. levels. Since there are no significant wastes from point sources, the concensus is that low D.O may result from up-welled oceanic waters forced up-bay by tidal action (DEQ, 1976). Turbidity often exceeds the legal turbidity requirements during periods of high river run-off including freshets and floods.

Water quality in the boat basin has generally been adequate, but occasional problems due to stagnation have been recorded in the summer. In July and August 1969, fish kills in the boat basin were attributed to (1) an abundance of herring, anchovy, and smelt in the bay; (2) low dissolved oxygen concentration; (3) warm water temperature; and (4)

drainage of highly organic waste water from a wood chip pile into the barge turning basin, however, the waste water was not the primary cause of the fish kill (Montagne, 1969). Slotta and Tang (1976) predicted water quality could become a problem in the new boat basin during summer and fall periods when flows are extremely low and temperatures are high. Temperatures in the estuary vary seasonally from 44.6 degrees to 75.2 degrees F. There have been no water quality problems in the boat basin since 1976 (Port of Brookings, 1984).

Biological Characteristics

The Chetco River Estuary biological habitats can be divided into two general subsystems; a marine subsystem and a riverine subsystem. As is typical of all Curry County estuaries the Chetco Estuary does not have a bay or slough subsystem with extensive tidal flats and salt marshes. The marine subsystem includes the port boat basin and estuarine area west of the U.S. Highway 101 bridge. The riverine subsystem includes that area upstream from the bridge to the head of tide (Figure 16.4.E).

The marine subsystem is influenced by the ocean with some influx of salt water during the normal tidal cycle. However, during periods of high river discharge the marine subsystem may be totally fresh and the only ocean water penetration being a salt wedge near the bottom at high tide.

The habitat areas of the Chetco River Estuary were described by a natural resource survey of the area done in 1978-79 (ODFW, 1979). As a part of this survey a habitat map was prepared which is shown in Figure 16.4.F. The habitat areas of the marine subsystem can be classified into two general environs; the main estuarine channel and the boat basin. Habitats in the riverine subsystem include the subtidal river channel and the intertidal gravel flats (ODFW 1979).

Habitats in the marine subsystem are 94% subtidal with three major environments being present: 1) the boat basins, 2) the dredged channel below the boat basin entrance, and 3) the undredged channel above the boat basin entrance. The boat basins comprise nearly half of the marine subsystem by area. The substrate in the boat basin is probably mostly sand with a silt component being deposited with weak currents. The water quality in the boat basin should be poor due to the slow flushing rate; however, sediment samples indicated that pollution indicies are within accepted limits.

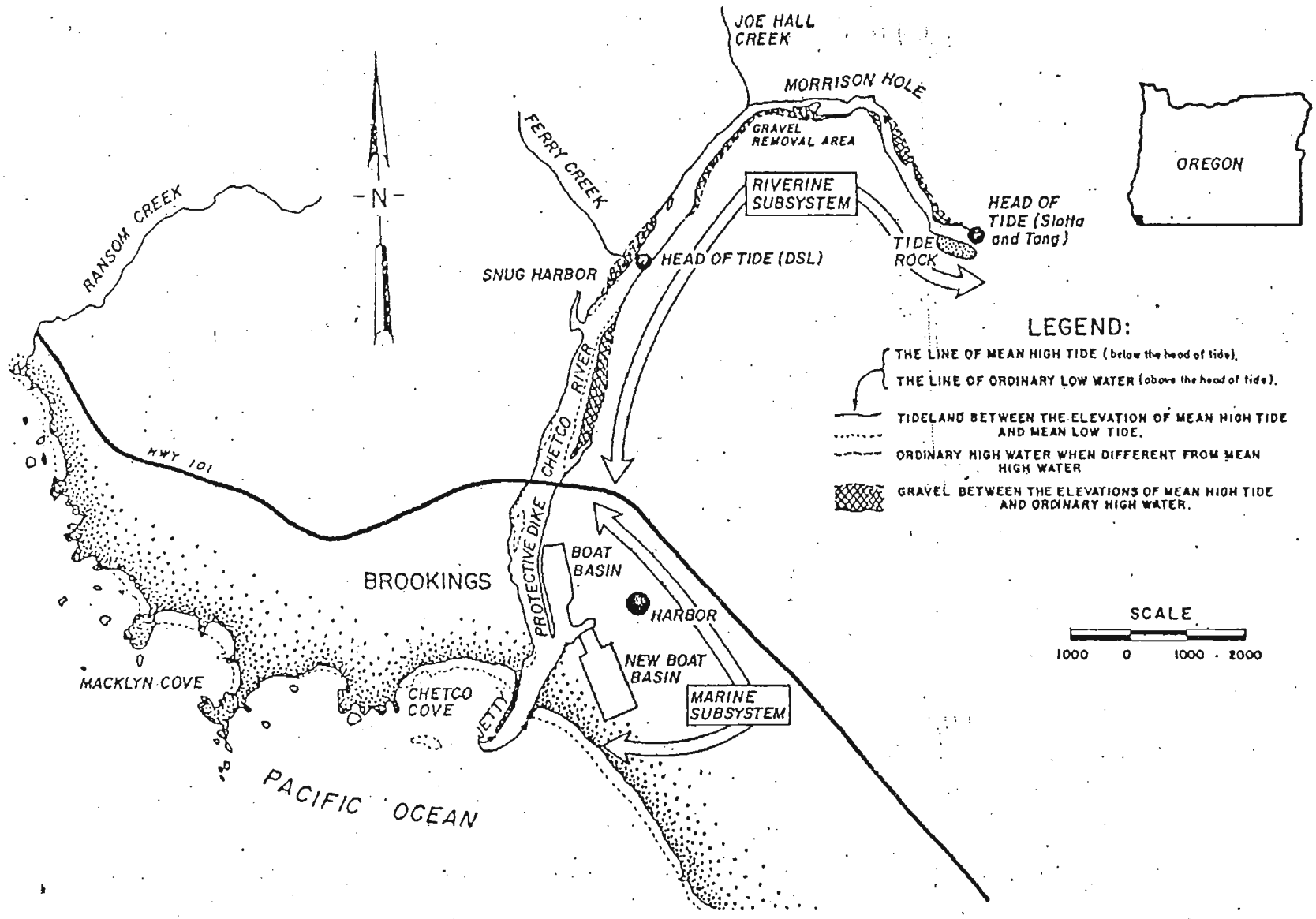
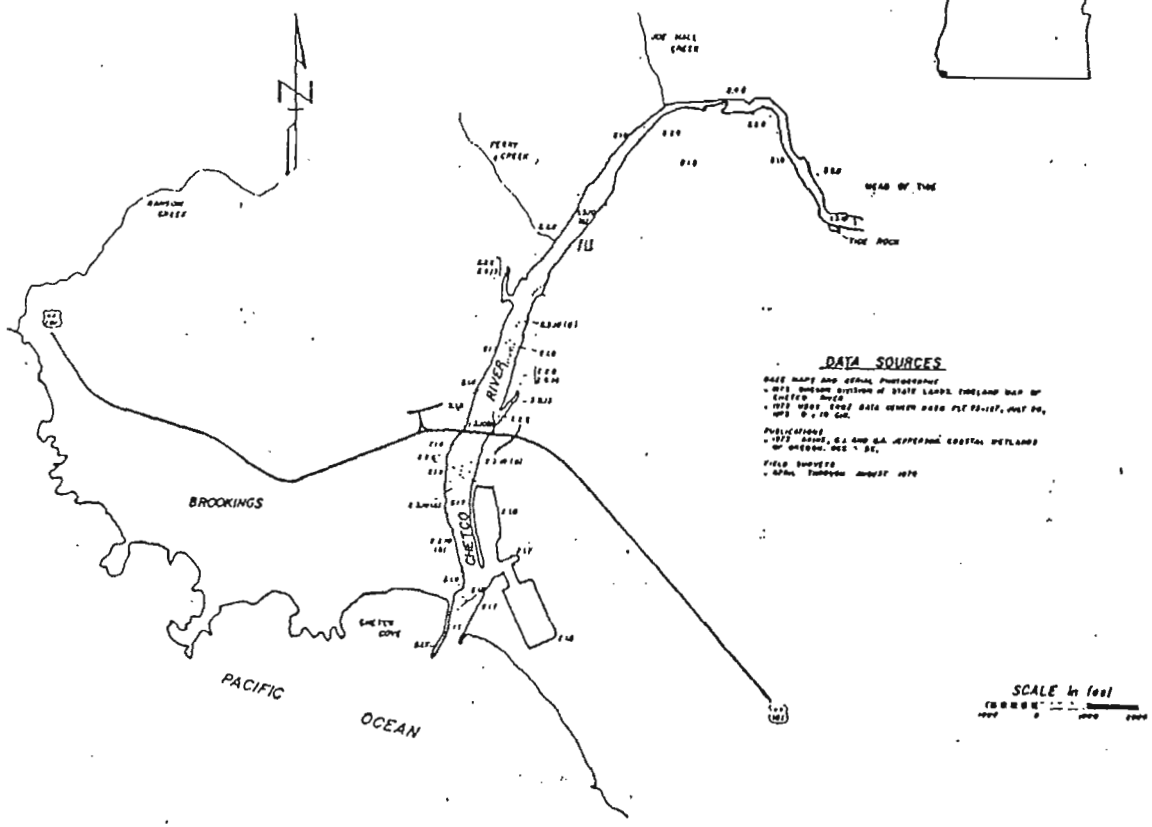

JOE HALL CREEK
MORRISON HOLE
GRAVEL REMOVAL AREA
FERRY CREEK
RANSOM CREEK
N
RIVERINE SUBSYSTEM
HEAD OF TIDE (Slotta and Tong)
TIDE ROCK
SNUG HARBOR
HEAD OF TIDE (DSL)
OREGON
LEGEND:
THE LINE OF MEAN HIGH TIDE (below the head of tide).
THE LINE OF ORDINARY LOW WATER (above the head of tide).
TIDELAND BETWEEN THE ELEVATION OF MEAN HIGH TIDE AND MEAN LOW TIDE.
ORDINARY HIGH WATER WHEN DIFFERENT FROM MEAN HIGH WATER
GRAVEL BETWEEN THE ELEVATIONS OF MEAN HIGH TIDE AND ORDINARY HIGH WATER.
CHETCO RIVER
HWY 101
PROTECTIVE DIKE
BOAT BASIN
BROOKINGS
HARBOR
NEW BOAT BASIN
MARINE SUBSYSTEM
SCALE
1000 0 1000 2000
MACKLYN COVE
CHETCO COVE
JETTY
PACIFIC OCEAN

Figure 16.



DATA SOURCES

BASE MAPS AND AERIAL PHOTOGRAPHY

- 1973 OREGON DIVISION OF STATE LANDS, TIDELAND MAP OF CHETCO RIVER
- 1973 USGS, 7.5' DATA SERVER DATA FILE 73-127, UNIT 24, MPS 0 x 10 CM.

PUBLICATIONS

- 1973 ADAMS, G.L. AND G.A. JEFFERSON, COASTAL WETLANDS OF OREGON, ORS 1-32.

FIELD SURVEYS

- APRIL THROUGH AUGUST 1978

LEGEND

GENERAL COMMENTS:

( ) AREA WITH A DOWNWARD POINTING TO INDICATE SUBSTRATE IN AN INTERTIDAL AREA (E.G. 0.5 M TO 1.5 M) INDICATES INTERTIDAL MARSH AREA WITH SEDIMENTS/SOFTER SUBSTRATE

E/PW USED IN THE INTERTIDAL AREA CLASSIFICATION, AREA DATA DESCRIBED, AND MARSH COVER DOWN FROM 50% OF AN AREA

* AREA OF ESTUARY IN THAT NATURAL FLUCTUATION OF AN AREA IS SEVERELY RESTRICTED

** DIFFERENTIATED TO SHORELINE HABITAT BETWEEN TWO NAMES

HABITATS WERE DRAWN FROM AERIAL PHOTOS, SHORELINE CONTOURS, AND FIELD SURVEYS VERIFYING IN SUMMER 1978 THE PLACE OF THE FRESHWATER MARSH, SEDIMENTS AND APPROXIMATE HABITAT INFORMATION SHOULD BE PERIODICALLY UPDATED TO REFLECT CHANGE.

HABITAT MAP OF CHETCO ESTUARY

RESEARCH AND DEVELOPMENT SECTION

ORE. DEPT. OF FISH AND WILDLIFE

SEPTEMBER 1978

The marine conditions of the boat basin has provided increased subtidal habitat for marine fishes that enter the estuary during summer, including northern anchovey, surf smelt, and Pacific herring (ODFW, 1979). Other sport species including shiner perch, walleye surf perch, American shad, and cutthroat trout have been caught by shore anglers in the boat basin (Gaumer, et al 1973).

The channel from the mouth of the estuary to the boat basin is maintained at -14 feet MLLW for navigation. The substrate in this area is predominantly coarse sand and gravel. The strong currents and frequent disturbance of the area by dredging probably limits the abundance and diversity of benthic species in the channel. Also the low light levels due to channel depth and high turbidity may prevent algae from growing on the gravel substrates (ODFW, 1979).

The undredged channel between the boat basin and the highway 101 bridge is shallower but navigable and is predominantly a gravel substrate which seasonally is covered with green algae (Enteromorpha sp.). The filamentous nature of this species may function like eelgrass in providing protection and food for invertebrates and small fish. Several fish species are present in the main channel of the lower estuary especially in the rocky habitats. These include striped sea perch, silver surf perch, red-tailed surf perch, pile perch, kelp greenling, black rockfish, and ling cod (Riikula, 1971). Spawning and larval development periods differ for each species so that their use of the estuary by these fish may vary.

Other animals in the lower estuary during the summer include harbor seals and dungeness crab in the boat basin.

The marine subsystem of the Chetco Estuary contains less than five acres of intertidal habitat. Along the jetties, dike and marina shoreline boulder and cobble/gravel substrate exist which is used by Fucus sp. and other algal species. The diverse assemblage of species normally attached to rocky habitats provide an important food source for marine fish (COE, 1979).

Other intertidal habitats of the marine subsystems include bedrock and gravel shores, a gravel flat, and algal beds attached to bedrock and gravel. During a habitat survey in 1978 large colonies of amphipod (Corophium sp.) were noted in the silt (ODFW, 1979). This species is the primary food of juvenile chinook salmon rearing in estuaries (Reimers, 1973).

The Oregon Department of Fish and Wildlife has made the following recommendations regarding the habitats of the marine subsystem of the Chetco Estuary.

1. "Among the more important unaltered habitats remaining in the lower estuary are the undredged, vegetated channel and intertidal habitats above the boat basin...we recommend that dredging and filling not be permitted above the boat basin entrance so that these habitats will remain undisturbed."

2. "the boat basins are important babitats in the Chetco because they represent a very large percentage of the tidal prism and provide an environment that is more highly saline than the estuary outside the dike...discharge of pollutants from sewage, fish processing plants, mills, boats, and other sources should be strictly controlled.....if pollution cannot be controlled, the boat basins should be modified to improve flushing."

The riverine subsystem extends from the Highway 101 bridge to the head of tide near Tide Rock (see Figure 16.4.E. Salinity above Ferry Creek (RM 1.6 is near zero except during low flow at a high tide (personal communication, Al Mirati, 1978) so that water quality in this part of the estuary reflects the water quality of the Chetco River.

Intertidal habitats in the riverine subsystem are confined to the narrow shoreline of the channel. Tidelands during the summer low flow comprise about 8.5 acres or almost twice the intertidal area currently present in the marine subsystem (ODFW, 1979). There are some intertidal areas that are subtidal during high winter flow due to the result of the steep river gradient. There are four long gravel flats totalling about twenty-six acres that are above low flow level but are below the level of ordinary high water of winter flow (ODFW, 1979). These gravel flat areas are periodically flooded during high flows but due to their elevation, they are normally exposed during the productive summer months.

The exposed gravel flats are sparsely vegetated by freshwater spike rushes (Eleocharis sp.) during the summer months (Adkins and Jefferson, 1973). The other gravel flats have shrub vegetation, which is predominantly willow. The plant production from these seasonally vegetated flats may be a significant source of organic material for the estuary. (See Figure 16.4.G.)

Summer intertidal habitats are predominantly gravel shores which are covered by algae and fine sediments. There are two small mud areas which are removed from the main flow of the river in the riverine subsystem. One of these is Snug Harbor,

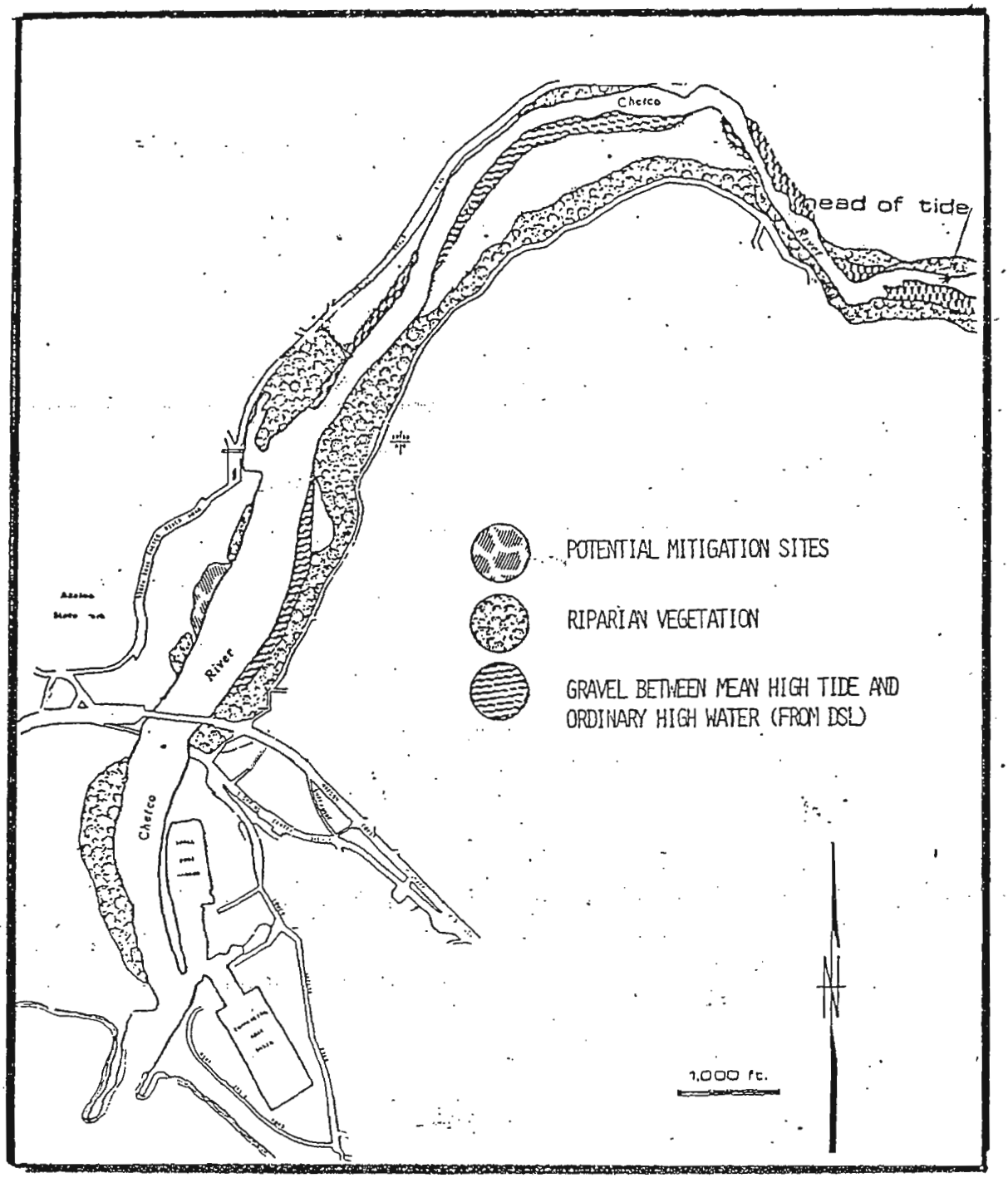

Chetco
head of tide
River
Chetco
POTENTIAL MITIGATION SITES
RIPARIAN VEGETATION
GRAVEL BETWEEN MEAN HIGH TIDE AND ORDINARY HIGH WATER (FROM DSL)
1,000 ft.
N

Figure 16.4.G.

a small slough on the north shore that is used as a boat moorage and the other is a mud sand flat on the south shore just below the intertidal gravel marsh. These areas are likely to be fish rearing areas. (ODFW, 1979)

The Oregon Department of Fish and Wildlife has made the following management recommendations regarding the habitats of the riverine subsystem of the Chetco Estuary:

1. "the shallow vegetated areas of the channel, intertidal algal beds and marshes probably provide important sources of plant production and fish rearing habitat in the Chetco."

2. "to protect the productivity of this small estuary dredging should not be permitted in the riverine system";

3. "permanent dikes, fills and riprap should be prohibited on the gravel flats";

4. "pastureland and residential land behind the gravel flats could be directly protected with riprap with less impact upon the estuary";

5. "gravel removal should be restricted to its present location in the estuary...until the effects on the estuarine system and fish habitat are determined." (ODFW, 1979).

Plants:

Very little research has been conducted on specific aquatic floral populations on the Chetco River. There have, however, been some studies in areas which are geographically near the Chetco. Since ecological concepts are general in nature and not tied to a particular species or locality these studies are useful in predicting the distribution of aquatic floral types.

Diatoms are conspicuous elements of both the freshwater and marine environments. The diatom populations are very quick to respond to environmental changes because their spores are free floating in the open water. When a change in the environment occurs, a species more adapted to the new situation is immediately introduced from the spores in the surrounding waters. The number of different diatom species inhabiting a location will vary from summer to winter. In summer, a great number of individuals of a single species are more likely to dominate a region than in winter. An example of this seasonal abundance is Achnanthes sp. in winter and Fragilaria striaitula in summer. Synedra fascicilata is the other diatom abundant in both seasons.

Invertebrates:

Estuarine invertebrates may include horse or gaper clams, butter-clams, little necks, and cockles. However no species of bivalves are known to be numerous in the estuary and there is no sport harvest (Personal Communication, Port of Brookings, 1984). The estuary has a small transient population of both Dungeness and red rock crab during the summer months (mating season). Harvest of these species is spotty and comprised only 2.3% of the total fishery in the estuary for 1971. Other benthic invertebrates present in significant numbers include clam worms, Nereis, and the amphipods Anisogammaris and Corophium.

Fish:

Thirty or more species of finfish are found in the Chetco Estuary. Northern anchovy, surf smelt, pacific herring, and several species of surf perch enter the estuary in significant numbers. Important runs of chinook salmon, steelhead trout, and searun cutthroat spawn and rear in the Chetco system (Montagne - Bierly Assoc. Inc., 1978). The anadromous species of salmonids which migrate through the estuarine area are depicted in Figure 16.4.H. The Corps of Engineers coordinates its annual dredging schedule to minimize interference with fish migrations (COE, 1979).

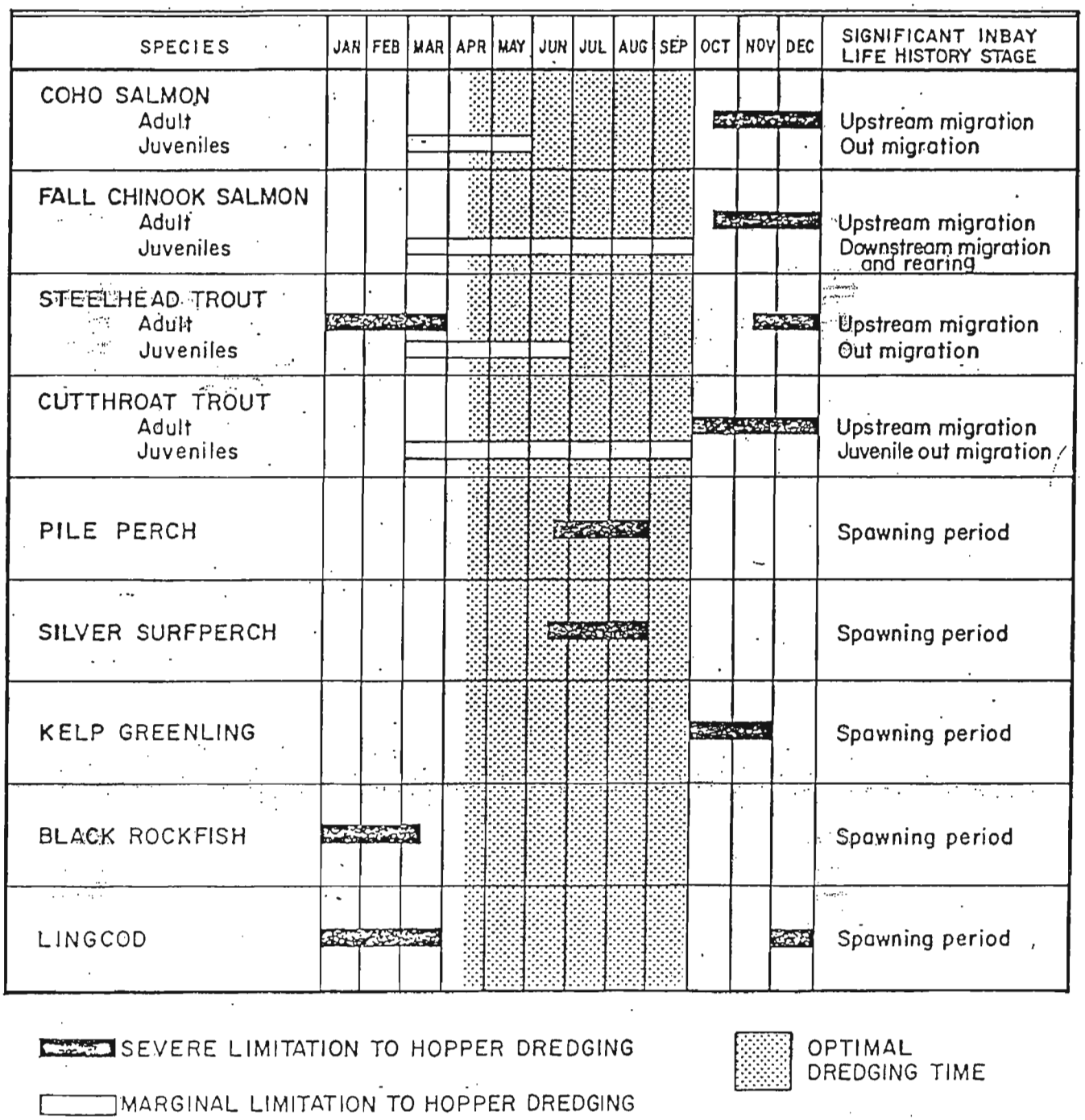
Birds and Mammals:

The Chetco Estuary is not of major significance to migrating birds or local resident birds due to the lack of substantial tideland or marsh areas. Common game birds found in the area are American widgeon, green-winged teal, pintail, scaup, ring-necked duck, bufflehead, common golden eye and red-breasted merganser. The following shore and other birds are also often found in or near Chetco and Winchuck estuaries: least sandpiper, western sandpiper, western gull, herring gull, California gull, belted kingfisher, double-crested cormorant and brown pelican.

Upland game birds on the South Coast include band-tailed pigeon, ruffed grouse, blue grouse, mourning dove, mountain quail, valley quail and pheasant.

Big game species of the uplands include black tailed deer, Roosevelt elk and black bear. The larger mammals tend to avoid densely populated areas. Marine mammals that may be observed in Chetco Bay or offshore include harbor seal, California sea lion, steller sea lion and grey whale. Fur bearing animals found in the area include river otter, beaver, raccoon and mink.

Important Fish Species of Chetco Estuary



Source: Montagne-Bierly Assos. Inc., 1978).

Figure 16.4.H.

Natural Areas:

The only natural area identified in the "Oregon Natural Areas" inventory for the Chetco Estuary is the estuary itself. This inventory states that the estuary may have some value as a waterfowl wetland (Nature Conservancy, 1977). The resource values of this site will be considered in the overall plan for the estuary.

Social and Cultural Characteristics:

The Chetco Estuary lies in an area that is developed to moderate density with a variety of land uses. Almost half of the estuary area lies within the City of Brookings Urban Growth Boundary (UGB). The urban growth boundary crosses the estuary upstream from the Highway 101 bridge near Snug Harbor. Lands within the UGB are generally used for a combination of residential, commercial, industrial, marine related and public facility uses. That part of the estuary outside of the estuary has similar uses with specific sites on both the north and south shorelines being used for commercial and industrial purposes with the remaining lands being predominantly in rural residential use. Most of the upland areas adjacent to the estuary are presently developed, however, there are some vacant lands along the south shoreline. (See Figure 16-4-I.)

The City of Brookings lies on the north side of the lower estuary and the unincorporated community of Harbor lies on the south side of the estuary. The community of Harbor is included within the Brookings UGB as an area proposed to accommodate the future growth of the Brookings area.

The Brookings Harbor area is the most populous area of Curry County and contains the highest density of developmental use. The Port of Brookings is located along the south shore of the estuary between the mouth of the estuary and the Highway 101 bridge. Shoreland uses in this area are a combination of residential, commercial, and industrial. Near the head of tide a mobile home/recreational vehicle park is located on the south shoreline. Further downstream the Tidewater Contractors industrial site has a gravel removal operation in conjunction with the production of aggregate, concrete and asphalt. The Horton site, immediately downstream of the U.S. 101 bridge is also a gravel removal site and provides moorage as an existing dock system. The remaining south shoreline uses are residential or vacant lands.

Lands along the north shoreline are a combination of residential and commercial uses within the UGB. Upstream from the UGB lands are generally in rural residential use with

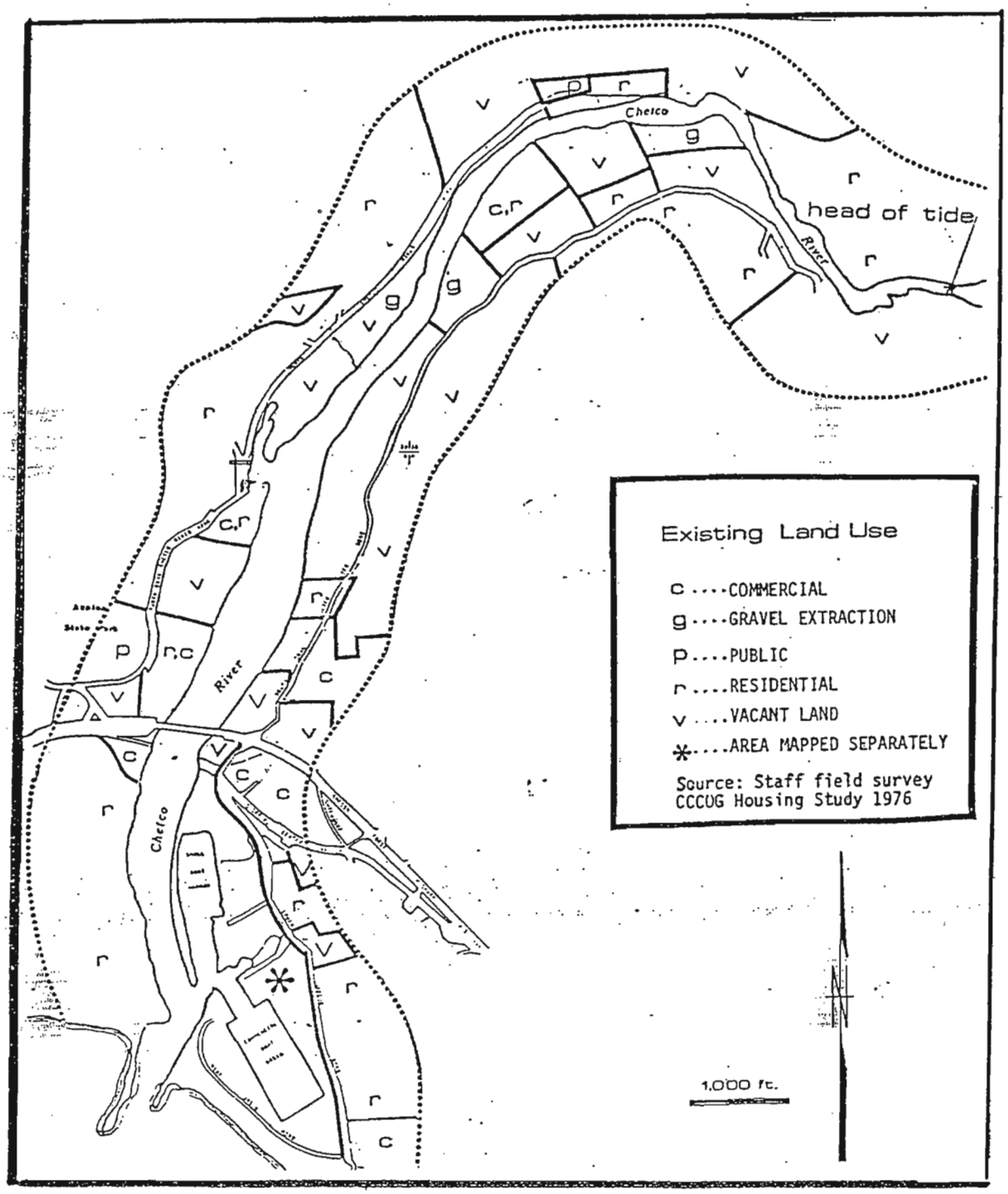

Existing Land Use
c ....COMMERCIAL
g ....GRAVEL EXTRACTION
p ....PUBLIC
r ....RESIDENTIAL
v ....VACANT LAND
* ....AREA MAPPED SEPARATELY
Source: Staff field survey
CCCOG Housing Study 1976
1,000 ft.
Chelco
River
head of tide

Figure 16.4.I.

notable exceptions being at Snug Harbor which is a commercial recreational site and at Ferry Creek which is another gravel removal site used for aggregate production.

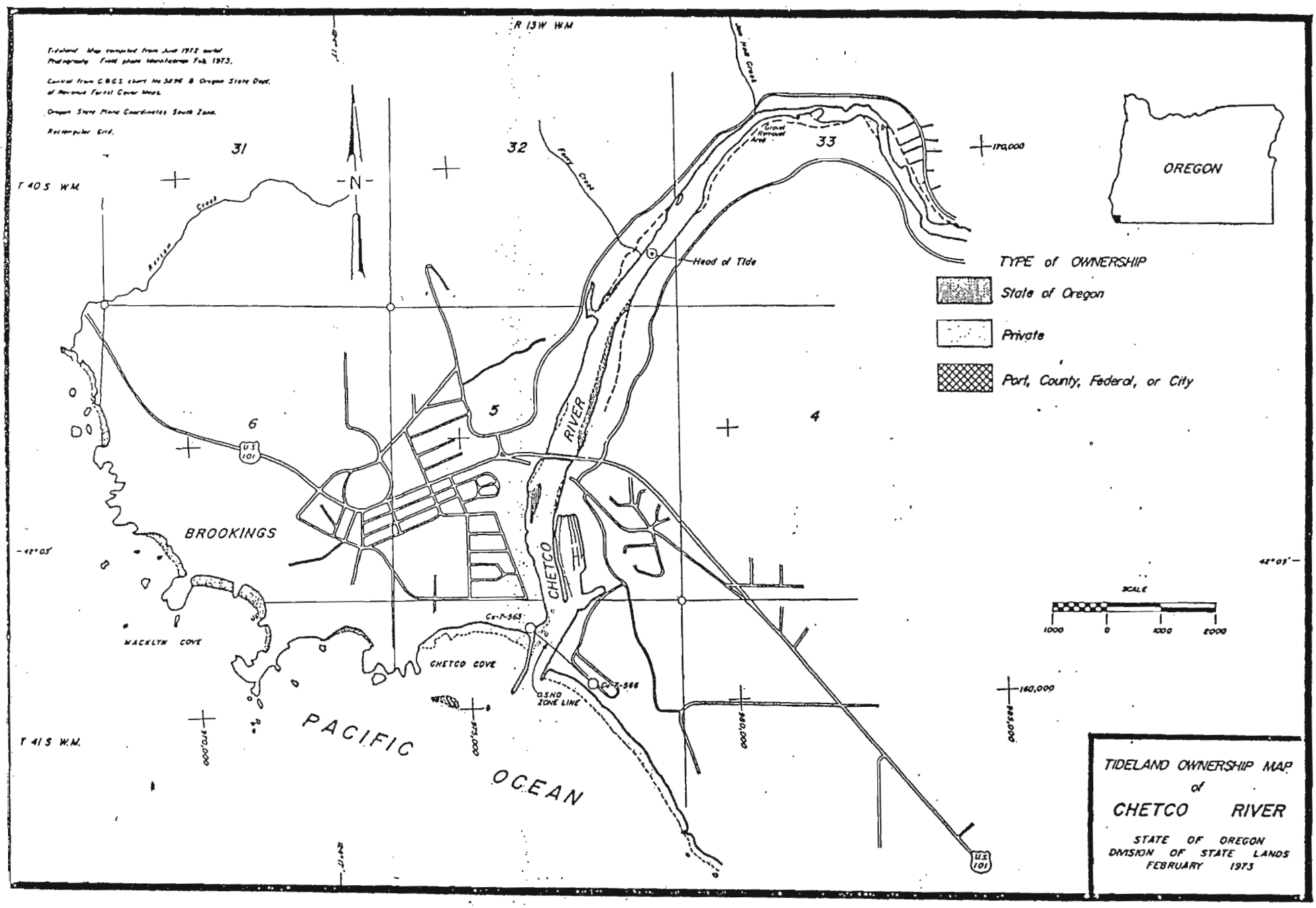
Land ownership within the Chetco Estuary is a combination of public and privately owned lands. Most publicly owned lands are located in the vicinity of the mouth of the estuary and include the jetties and Port of Brookings lands. The remainder of the lands bordering the estuary are privately owned and vary in parcel size from residential home lots to larger commercial and industrial sites. Figure 16.4.J shows the general distribution of publicly and privately owned lands within the Chetco Estuary.

There are various public access points to the estuary which are available on both public and private lands. These access points are associated with recreational facilities. A public boat ramp is located at the Port of Brookings to provide access for fishermen and recreational boating (Figure 16.4.K).

The only known historical or archeological site known within the Chetco Estuary is the midden or indian village site known to have existed at the mouth of the Chetco River. This area has been altered by construction of the jetties and boat basin so that historical value of the site has been lost.

The Chetco Estuary is served by a highway and water-bourne transportation system and public utility system. The Chetco River provides a water source for both the City of Brookings and the Harbor area. The Harbor area water system is organized as a rural water district which removes water from the river on the south shore just above the head of tide. The main water line for this system follows the South Bank Chetco River Road bordering the estuary to the boat basin. The City of Brookings obtains its water from the river on the north bank just above the head of tide. Their main water line follows the North Bank Chetco River Road into the city. Public sewage disposal is available in the lower part of the estuary on both sides of the river to the limits of the UGB.

The Chetco Estuary is served by U.S. Highway 101 which crosses the lower end of the estuary with a relatively new four lane bridge. This highway is the main transportation link through the county and to California to the south. The North and South Bank Chetco River Roads are two lane paved county roads which traverse the respective shorelines of the estuary easterly from the highway. Shoreland areas west of the highway are served by city streets on the north shore and paved county roads to the Port on the south shore.



R 13W W.M.
T 40 S W.M.
T 41 S W.M.
31
32
33
6
5
4
N
Head of Tide
Gravel Removal Area
Forty Creek
Jim Hall Creek
Reeson Creek
BROOKINGS
MACKLYN COVE
CHETCO COVE
CHETCO RIVER
Cu-T-565
Cu-T-566
SHD ZONE LINE
PACIFIC OCEAN
U.S. 101
170,000
160,000
980,000
985,000
970,000
42°03'
OREGON
TYPE of OWNERSHIP
State of Oregon
Private
Port, County, Federal, or City
SCALE
1000
0
1000
2000
TIDELAND OWNERSHIP MAP
of
CHETCO RIVER
STATE OF OREGON
DIVISION OF STATE LANDS
FEBRUARY 1973

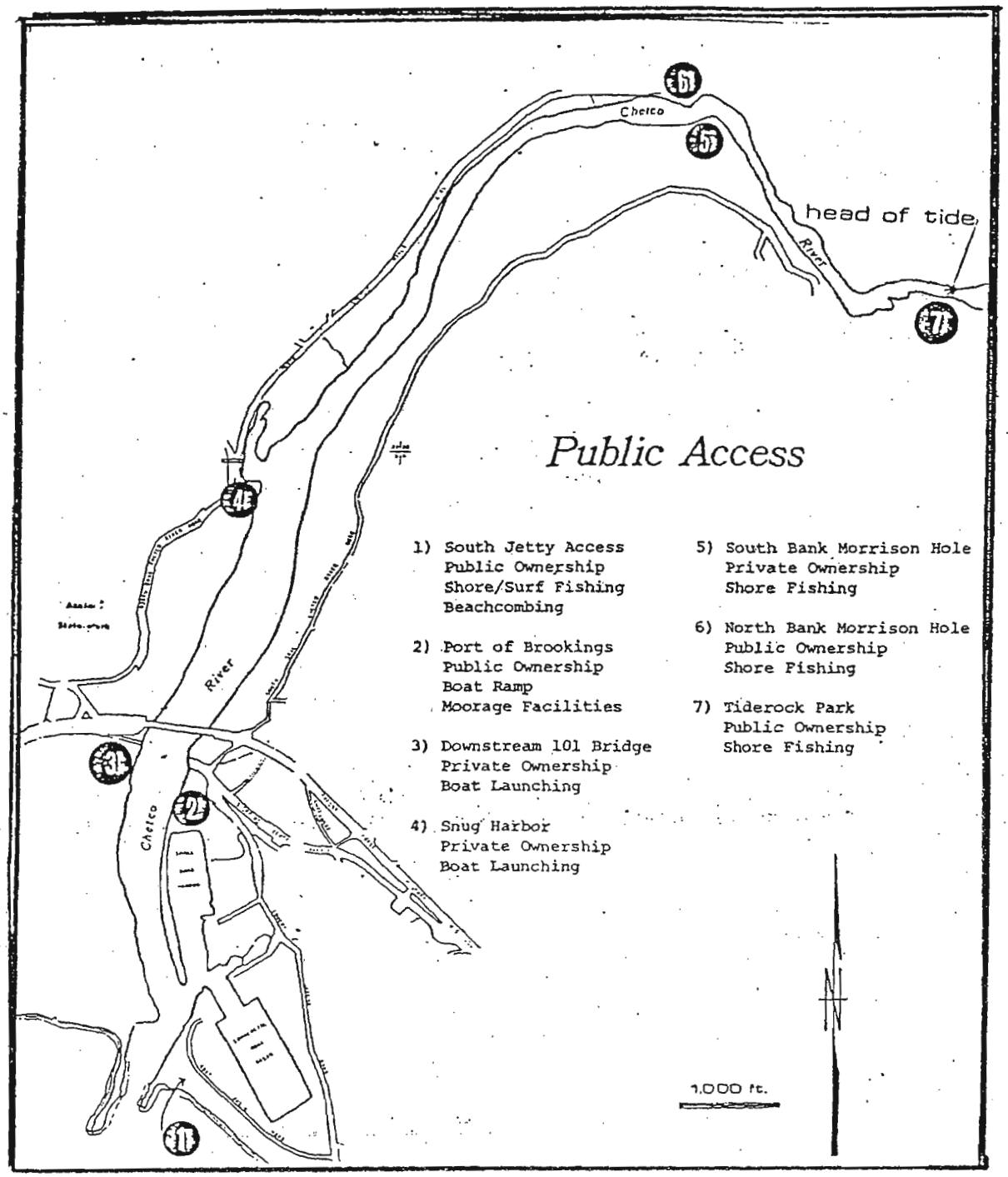

Public Access
1) South Jetty Access
Public Ownership
Shore/Surf Fishing
Beachcombing
2) Port of Brookings
Public Ownership
Boat Ramp
Moorage Facilities
3) Downstream 101 Bridge
Private Ownership
Boat Launching
4) Snug Harbor
Private Ownership
Boat Launching
5) South Bank Morrison Hole
Private Ownership
Shore Fishing
6) North Bank Morrison Hole
Public Ownership
Shore Fishing
7) Tiderock Park
Public Ownership
Shore Fishing
head of tide
Chetco
River
1,000 ft.

Figure 16.4.K.

The Chetco River Estuary has transportation facilities for marine transportation with its navigation channel moorage and docking facilities in the harbor. These facilities are second only to those of the Columbia River in the frequency of use as determined by bar-crossing statistics.

That part of the estuary included within the City of Brookings Urban Growth Boundary is planned to be urbanized during the twenty year planning period. Urbanization of this area will involve further development of the port facility, development of the commercially, residentially, and industrially designated lands in the vicinity of the estuary.

Economic Characteristics:

The economy of Curry County is comprised of four sectors: forest products, commercial fishing, tourism, and agriculture. The Chetco estuary contributes to the first three of these sectors in various ways.

The forest industry has been a major industry in Curry County since 1940 with the county being dependent upon this industry for many jobs. However, employment in this sector has been declining due to decreasing timber supply, improved technology, a lack of rail transportation and a fluctuating market. The timber industry will remain important to the area and remain as the area's basic industry.

The Port of Brookings has been a lumber shipping port for many years with most shipping being through the utilization of lumber barges. Barges and tugs negotiate the estuary entrance only at high tide during daylight hours due to the shoal at the bar and limited size of the channel.

During the 1958 to 1972 period, employment at coastal ports has exhibited an average annual decline of 1.4 percent despite increased shipping activity. The reason for this is an increase in the productivity per worker in the shipping industry. For instance, using the ratio of coastal shipping activity divided by employment in water transportation as the measure of productivity, this industry has shown an average annual increase in productivity of 6.3 percent in the period from 1958 to 1972.

Table 16.4.B indicates the barge traffic of processed lumber out of Chetco Harbor since 1976. It is interesting to note that since 1979 the overall lumber barge traffic from

the Northwest to Southern California has decreased by 50%. Chetco Harbor, however, has experienced an overall increase in tons shipped to Southern California. There seems to be two basic reasons for this market stability. First, land transportation out of the Brookings area is poor due to the lack of rail transport. Second, the relative distance to the Southern California market is such that barge traffic is the most economic means to transport the lumber.

Table 16.4.B

Lumber Barge Traffic

	Southern California			Hawaii			Total	
Year	# of Barges	Total Tons	Tons Per Barge	# of Barges	Total Tons	Tons Per Barge	# of Barges	Tons
1976	14	50,902	3,636	10	28,862	2,886	24	79,764
1977	18	66,385	3,688	7	19,133	2,733	25	85,518
1978	18	69,743	3,874	9	27,804	3,089	25	97,547
1979	15	56,359	3,757	10	28,772	2,877	25	85,131
1980	18	73,922	4,106	12	25,948	2.162	30	99,870
1981	59	36,900	-	13	19,949	-	22	56,849
1982	3	11,752	-	14	20,491	-	17	32,243
1983	4	17,062	-	15	29,952	-	19	47,020

Source: Sause Bros. Ocean Towing, Inc.

Presently the Chetco Estuary channel can accommodate no barge larger than 4,300 tons with a draft greater than 13 feet. The new generation of ocean going barges will be of the 6,000 ton class with a draft of 16 feet and, without modification, the Chetco Estuary channel will not be able to accommodate them. While barge traffic at Chetco appears more dependent upon supply and demand of forest products rather than improvements to navigation, there has been a positive trend in barge traffic or tonnage transported since the completion of deepening of the channel in 1970 until the forest products industry recession of the early 1980's.

Commercial fishing is very important to the economy of the Brookings area. Ocean fishing grounds extends about twenty-five miles north and south along the coast from the Chetco channel. Fishermen harvest crab, shrimp, salmon, tuna and bottom fish from these grounds. The commercial fishing fleet consists of 280 locally based boats and 100 to 150 transients. There is a total of 380 commercial fishing boats using the Port of Brookings of which 10 - 20 are drag boats and 200-250 are trollers. In 1982 there were 185 commercial fishing,boats on the waiting list for moorage in the Port of Brooki Brookings at present there is a waiting list for recreational boat moorage (personal communication, Port of Brookings, 1984).

The Port of Brookings has three fish recieving stations for the local catch. The following table lists the catch for the Brookings area.

Table 16.4.C

Commercial Fish Landings and Values
Brookings, 1979 and 1983

Species	Pounds 1979	Pounds 1983	Est. Value 1979	Est. Value 1983
Chinook	736,000	118,235	$1,884,000.	$197,452.
Crab	1,503,000	138,778	1,323,000.	208,167.
Coho	443,000	60,061	1,001,000.	100,302.
Pink Shrimp	2,034,000	94,801	854,000.	61,621.
Albacore Tuna	122,000	51,848	81,000.	58,588.
Rock Fish	3,084,000	999,995.	833,000.	229,990
TOTAL	7,922,000	1,463,718	$5,885,000.	$856,120.

Source: ODFW

The commercial fish landings at Brookings more than doubled between 1972 and 1979 with comparable growth for the number of commercial boats permanently moored at the Port. The present depth of the authorized channel restricts the operation of commercial fishing boats from the Port of Brookings and limits the use of the port facilities by larger vessels. The short term set-backs in commercial fishing caused by the recent anomalous ocean conditions and water temperatures should not have a permanent effect on that industry.

Recreation/tourism is an important and growing industry in Curry County. The Curry County, and especially the Brookings economy has undergone considerable structural change in the past two decades. The traditional lumber and wood products economic base has lost predominance to the servicing of a large and growing retirement population, a rapidly expanding tourist industry, and a relatively strong fishing and fish processing industry. These growing sectors of the economy focus on the economic resources available in the Chetco Estuary and at the Port of Brookings (EED, 1983).

The growth of the retirement community is reflected in population data for both the 1960-70 and 1970-80 decades. Over this period, the number of residents 55-64 years old in both Brookings and Curry County grew at rates approximately twice that of the state as a whole. In the age group 65 years

or older, Brookings' and Curry County's growth rates were nearly three times that of the state. This population sector generally has more time for outdoor recreation because of the free time that retirement offers the individual. In fact many of the people who have relocated to the Brookings area upon retirement have cited the ourdoor recreational opportunities offered by the area was the principal attraction.

The importance of the Brookings offshore sport fishery is evident from annual angler trip data. During 1978 to 1982, Brookings averaged 65,000 angler trips each year, and in three years out of these five was the number one port in Oregon in this regard (see Table 16.4.D).

Table 16.4.D

BROOKINGS OFFSHORE SPORT FISHERY
Annual Angler Trips*

Year	Angler Trips
1978	61,792
1979	66,534**
1980	59,884
1981	73,615**
1982	65,442

* Non-commercial private boats (including charters).
** Brookings was the #1 port in the state these years, and is consistently amont the top ports.

Source: Oregon Department of Fish and Wildlife, Marine Region, Newport.

One of the main driving forces behind the "new" Brookings area economy is the Chetco River, its sheltered harbor, and the support facilities in place and serving the recreation and tourism industries. These include, most critically, the Port of Brookings with its full range of developed facilities at 0.3 mile, with ocean access that does not have a bar.

The Port of Brookings boat moorage facilities currently include 580 permanent sport boat moorages, 35 transient moorages, and 380 commercial boat moorages. These facilities are used at full capacity during the prime May to October season, and are subject to waiting list rationing of their availability (EED, 1983).

The lack of adequate moorage at the Port of Brookings is one of the critical problems which must be solved in order to allow the further development of the commercial fishing and recreation/tourism aspects of the Brookings area economy.

Expansion of these industries in the Chetco Estuary will require future development of the estuary upstream from the present Port of Brookings.

The need for future moorage space in the Chetco Estuary can be projected from analysis of the present use of the Port of Brookings facilities and the potential future demand for this type of use. Analysis of sport boat moorage use at the Port of Brookings for 1976 and 1982-83 shows a remarkably constant pattern. Approximately 82% of permanently moored sports boats were from the four-county catchment area area of Curry, Jackson, Josephine, and Klamath counties. Another two percent were from other Oregon counties and sixteen percent were from other states. (See Table 16.4.E).

Use of Port of Brookings' moorage facilities on a part-time basis shows a pattern differing only slightly. About 75% of transient use was from the four-county area; another eight percent from Coos, Douglas, and Lane counties, ten percent from California, and the remaining seven percent scattered from elsewhere both in and out of Oregon. Thus, transient usage draws from a slightly broader area, but still within the southwest quadrant of Oregon and south of the border.

1982 boat size data for the Port of Brookings' permanent sport boat basin show 14 percent of the boats as 16 feet or less, 78 percent in the 17-24 foot class, and eight percent 25 feet or longer. Transient boats were predictably somewhat smaller; 23 percent were 16 feet or less, 72 percent were 17 to 24 feet, and five percent were 25 feet or longer (see table 16.4.F).

The analysis of future demand for boating facilities in "Commercial and Recreational Boating Facilities in Oregon Estuaries" (1979) projects that for each 10,000 increase in Oregon's population, there will be an additional 500 recreational boats in the 16-26 foot class, the Port of Brookings main clientele. Population projections for the Curry-Jackson-Josephine-Klamath county prime catchment area, 1982 to 2000, indicate an increase in population of 160,000. This would add 8,000 recreational boats in the 16-26 foot class in this area. Past boat ownership trends indicate that boats of this size are increasing at nearly four times the rate of increase in the population, whereas boats under 16 feet are increasing at only a slightly faster rate than the population.

Currently, it is estimated that six percent of the boats in this size class from the four-county area are permanently moored at the Port of Brookings, and another 11 percent use Port of Brookings moorage facilities on a transient basis.

TABLE 16.4.E

Port of Brookings, Sports Marina
Geographic Origin of Moorage Clientele

	1976 Permanent	% Share	1982 Permanent	% Share	1982 Transient	% Share
Oregon	416	83.5	439	83.8	1,093	86.5
Curry Co.	208		210		87	
Jackson Co.	120		123		481	
Josephine Co.	42		48		175	
Klamath Co.	41		48		203	
Sub-Total	411	82.5	429	81.9	946	74.9
Other Cos.	5	1.0	10	1.9	147	11.6
Clackamas			1		3	
Clatsop					1	
Columbia			1			
Coos					10	
Crook					2	
Deschutes			1		5	
Douglas	1		5		71	5.6
Grant					1	
Lane	2		2		25	
Malheur					3	
Marion					2	
Multnomah	2				14	
Tillamook					3	
Umatilla					1	
Union					1	
Wallowa					1	
Washington					2	
Yamhill					2	
Other States	82	16.5	85	16.2	170	13.5
Neighboring	74	14.9	70	13.3	148	11.7
California	70	14.1	66	12.6	124	9.8
Idaho	--		1		4	
Nevada	3		3		12	
Washington	1				8	
Other	8	1.6	15	2.8	22	1.7
Arizona	4		10		10	
Canada					4	
Colorado	2		1		5	
Iowa	1				--	
Minnesota	1		2			
Montana					3	
Texas			2			
TOTAL	498	100.0	524	100.0	1,263	100.0
Boat Size						
To 16'	N/A		75	14%	293	23%
17'-19'	N/A		187	36%	547	43%
20'-24'	N/A		218	42%	356	28%
25'+	N/A		44	8%	67	5%
			524	100%	1,263	100%

Source: Oregon Economic Development Dept.

TABLE 16.4.F

SPORT BOAT OWNERSHIP (Registrations)

Port of Brookings Primary Catchment Area for Moorage Usage

	1976	1982-83**	% Change
Curry Co.			
Under 16'	624	752	20.5
16' & over	722	1,019	41.1
Population	14,547	17,200***	18.2
Jackson Co.			
Under 16'	4,584	5,341	16.5
16' & over	1,958	2,921	49.2
Population	118,070	133,725***	13.3
Josephine Co.			
Under 16'	1,877	2,246	19.7
16' & over	639	1,060	65.9
Population	50,209	59,000***	17.5
Klamath Co.			
Under 16'	3,039	3,191	5.0
16' & over	1,051	1,461	39.0
Population	56,543	59,200***	4.7
Area Total			
Under 16'	10,124	11,530	13.9
16' & over	4,370	6,461	47.8
Population	239,369	269,125	12.4

*Source: Oregon State Marine Board
**Two years are shown because of the switchover to two-year registration.
***July 1, 1982 estimates, Portland State University, Center for Population Research & Cens

Assuming these ratios continue, an additional 480 boats would need permanent moorage facilities in the Chetco River, and another 880 would make use of available facilities on a transient basis.

It is unlikely that future population growth rates will duplicate past ones exactly, although the 1970-82 period examined encompassed two severe economic recessions that played a dampening role. However, a number of factors may offset any over-estimation of future demand in the above projections:

- No attempt has been made to project demand from outside the four-county area. Past experience indicates that whatever projection is arrived at based on population growth for this area should be increased by 20 percent to account for the Brookings draw from outside the area.

- Brookings' position as the state's leading port for offshore sport fishery is likely to continue. The easy ocean access and other amenities of the area give it a favored position. It also appears that Brookings' retirement community may own boats to a higher degree than the population at large (and also that they use them more often).

- Projected large-scale mining activity in bordering Del Norte County (California) over the next 20 years is likely to generate a significant but unidentifiable demand for sport boating facilities.

(Source: Analysis and projection of moorage demand from EED, 1983).

This need for 480 permanent moorage sites and 880 transient moorage sites within the Chetco Estuary must be accounted for within the comprehensive plan for the estuary. All options for meeting this need must be considered, analyzed, and where feasible must be incorporated into the comprehensive plan.

Sand and gravel are commercially extracted from the Chetco River at several sites within the estuary. These materials are used locally as fill, aggregate, and concrete or asphalt production. There are currently four removal permits which are located within the estuary which authorized a total 197,000 cubic yards/year in 1980 (DSL, 1980).

The Chetco River entrance channel is maintained by the dredging program of the U.S. Army Corps of Engineers. The Corps of Engineers maintenance dredging during the past three years has removed between 54,000 cubic yards and 76,000 cubic yards of dredged material (See Figure 16.4.L).

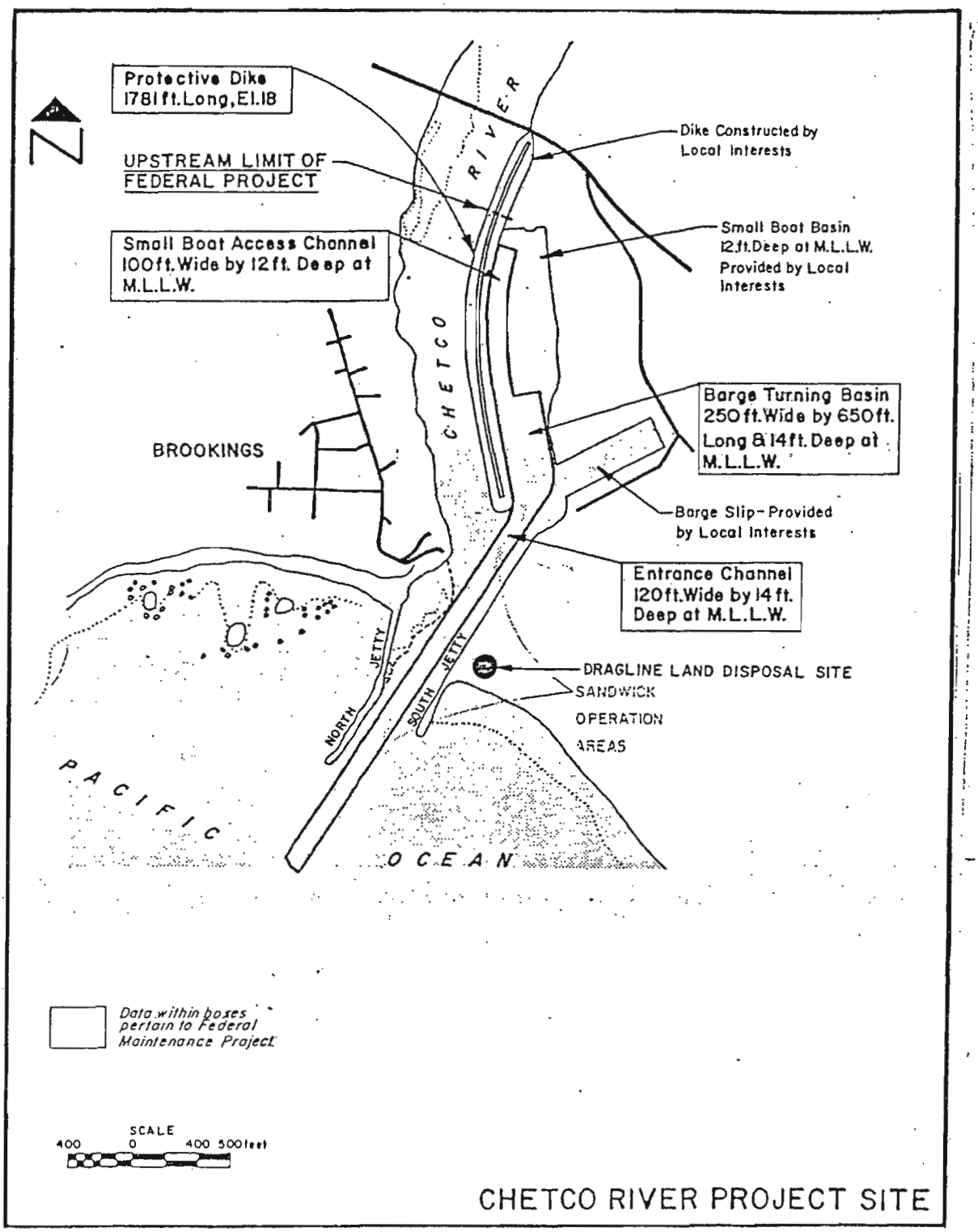
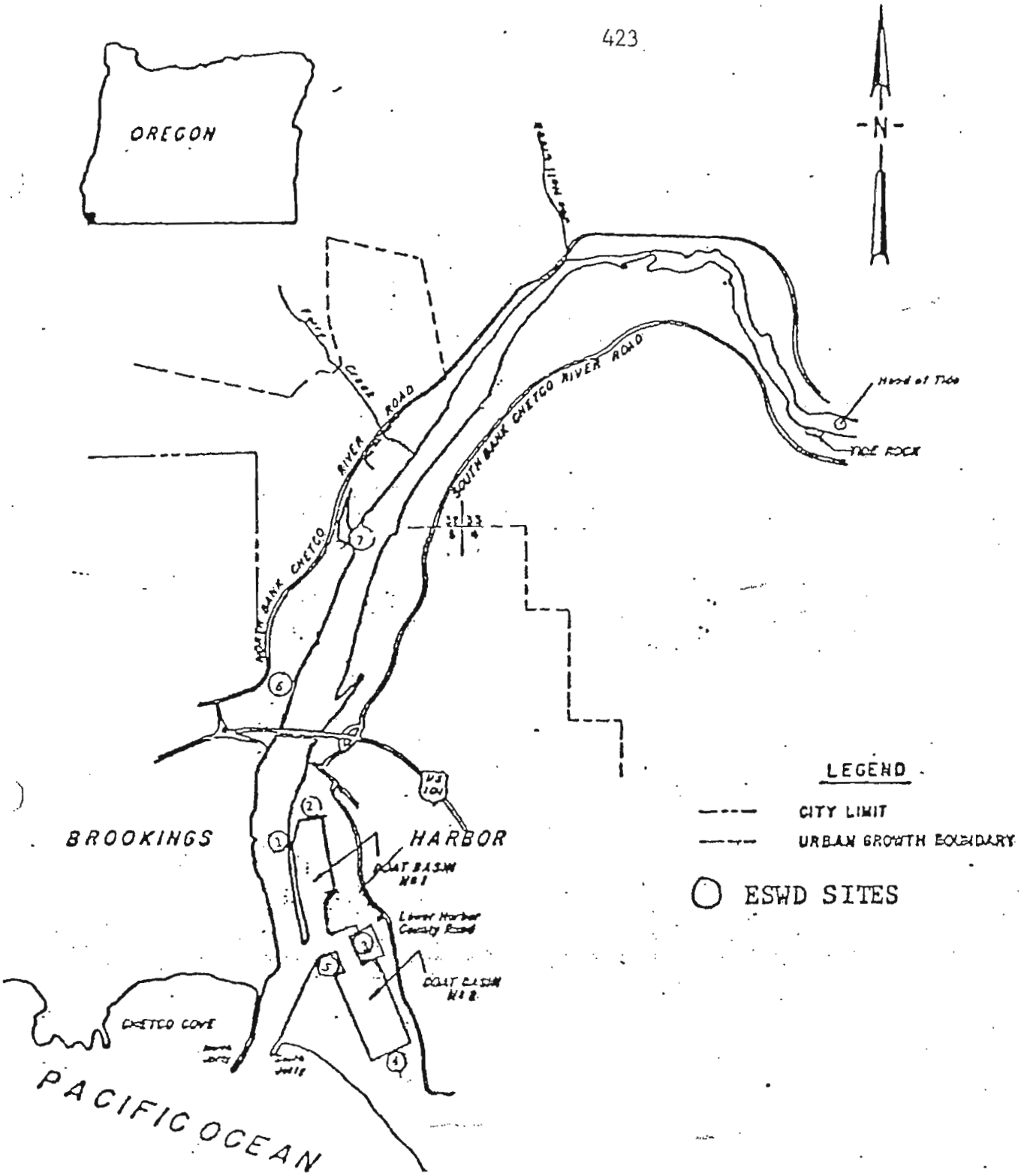

Protective Dike
1781 ft. Long, El. 18
UPSTREAM LIMIT OF
FEDERAL PROJECT
Small Boat Access Channel
100 ft. Wide by 12 ft. Deep at
M.L.L.W.
Dike Constructed by
Local Interests
Small Boat Basin
12 ft. Deep at M.L.L.W.
Provided by Local
Interests
Barge Turning Basin
250 ft. Wide by 650 ft.
Long & 14 ft. Deep at
M.L.L.W.
Barge Slip - Provided
by Local Interests
Entrance Channel
120 ft. Wide by 14 ft.
Deep at M.L.L.W.
DRAGLINE LAND DISPOSAL SITE
SANDWICK
OPERATION
AREAS
BROOKINGS
CHETCO RIVER
NORTH JETTY
SOUTH JETTY
PACIFIC OCEAN
Data within boxes
pertain to Federal
Maintenance Project
SCALE
400 0 400 500 feet
CHETCO RIVER PROJECT SITE

Figure 16.4.L.



ESWD SITES	MAP NO.	TAX LOT NO.
1. CHETCO RIVER DIKE	41-13-8A	900
2. SPORT BOAT LAUNCH RAMP	41-13-8A	100
3. INDUSTRIAL DOCK SITE/ PUBLIC FISH RECEIVING DOCK	41-13-8A	400
4. MARINE TRAVELIFT DOCK	41-13-9B	3100
5. U. S. COAST GUARD FACILITY	41-13-8A	305
6. KEMP PARCEL	41-13-5A	1804 U1, 1804 U2
7. SNUG HARBOR	41-13-5A	1501

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Dredge material from this federal project are being disposed of in an authorized ocean disposal site (42° 1'47" north; 120° 16' 21" west). The site is approximately one mile offshore of the jetties, is 1800 x 1800 feet, at an average water depth of 70 feet. Currently onshore disposal of dredged material is not necessary, however, should maintenance dredging become necessary within the boat basin that dredge material could require upland disposal (COE, 1983).

Statewide Planning Goal 17 requires that, "Shorelands in urban and urbanizable areas especially suited for water-dependent (ESWD) uses shall be protected for water dependent recreational, commercial, and industrual uses". Four criteria for identification of ESWD areas are suggested in the goal as follows:

1. Deep water close to shore with supporting land transport facilities suitable for ship and barge facilities:
2. Potential for aquaculture;
3. Protected areas subject to scour which would require coastal water or riparian resources.

The following areas within the Chetco Estuary are included in the Inventory of Sites Especially Suited to Water Dependent Development (ESWD).

1. CHETCO RIVER DIKE. This rock dike, constructed as protection for the Sport Boat Vasin, is now used by anglers seeking riverside access close to parking areas. Top of the dike is above the flood plain.

2. SPORT BOAT LAUNCH RAMP on the east end of the sport basin is especially suited to that use, a valuable part of Port activity.

3. INDUSTRIAL DOCK SITE. This site has been identified as especially suited to industrial docks and water-dependent industrial and commercial development. Approximately two and a half acres east of the basin now undeveloped, and owned by the Port of Brookings. This site is immediately adjacent to the deep water of the maintained channel, has sewer and water available, adeqaute road access and adjacent land for back-up facilities, cold storage facilities, parking and other storage. Also included in this area is the Public FISH RECEIVING DOCK and backup land south of the Barge Basin are especially suited to water-dependent commercial activity serving the fishing industry and are reserved for such activity.

4. MARINE TRAVELIFT. An area at the south end of the commercial boat basin is in a priority use as the site of the Port's marine travelift. This key water-dependent activity is served by backup lands for water-related facilities and services.

5. The U.S. COAST GUARD facility is located on a prime three-acre, water-dependent site along the maintained entrance channel.

6. KEMP PARCEL. North and adjacent to the above described shoreland (west riverbank approximately RM 1.1) is an approximatly ten acre vacant site now in pasture and wooded hillside. The river has cut a vertical bank; soil is silty loam over river gravel and has been approved for shallow septic tank installation. Adjacent natural river channel maintains itself in this area at approximately three feet (mean low water); channel could be maintained with minimal dredging, dredge material deposited on site. Access to the North Bank Road would be very steep; best access would be via the Ganty parcel to the south. Major development constraint here is the floodplain. Sewer service could be obtained by pumping uphill to the City main. Owner plans sport boat moorage, commercial recreational facility.

7. SNUG HARBOR. North of the above parcels at approximately RM 1.3 on the east bank is Snug Harbor Resort. Fourteen acres of shoreland in one ownership include a small boat harbor with floating dock and boat ramp, recreational vehicle park, several residences, pastures, and wooded areas. Soureline is protected with riprap and vegetation; hugh rock several stories high could afford spectacular views. Sewer service would require uphill pump to City main. Snug Harbor is now shallow, due to silting, but 20-foot scour area off mouth slopes to natural channel, which could be maintained at up to six foot depth with minimal dredging. Dredged material is to be deposited on shoreland. Owner plans expansion of existing moorage basin and tourist facilities.

Figure 16.4.M shows the location of these sites within the Chetco Estuary.

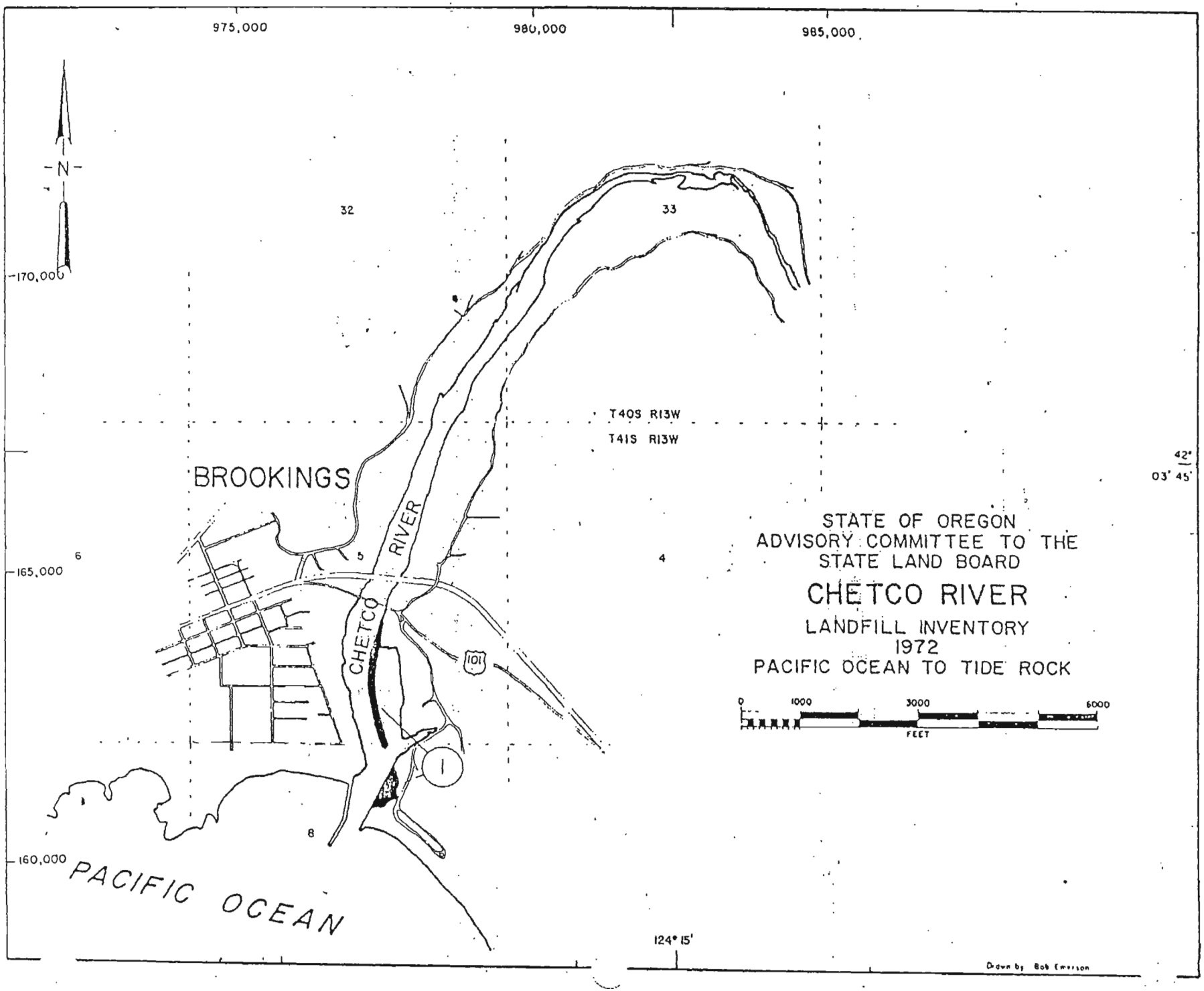
The Chetco Estuary has undergone alterations of various types including the construction of jetties and dikes, the dredging of navigation channels, land fills, and the use of bank protection revetment. The major physical alterations to the Chetco Estuary have resulted from the construction of entrance jetties and two boat basins below the Highway 101 bridge. Congress authorized the jetties in 1945 to stabil-

ize the depth and location of the mouth (U.S. Army Corps of Engineers (USACE), 1973). The two jetties were constructed and a 120-ft. wide navigation channel was dredged in December, 1957. In 1958 local interests constructed a protective dike approximately 1,000-ft. long on the southern shore near the mouth and dredged a boat basin behind it. In 1968, the north jetty was elevated and extended 450-ft. to eliminate shoaling problems and rough seas in the estuary. Between 1968 and 1970 the navigation channel was deepened to 14 feet and the Corps of Engineers assumed responsibility for maintaining 12-14-ft. depth in most of the boat basin and for further development of the dike. Between 1974 and 1976 a second and larger boat basin was constructed south of the first basin. The same entrance to the channel is used for both boat basins. Development of the Port of Brookings involved the filling of a shallow lagoon south of the jetty.

The alterations to the Chetco River Estuary described above have eliminated part of the former intertidal area of the estuary and blocked the mouths of several small creeks which entered the estuary below the head of tide (Oregon State Water Resources Board, 1963). A comparison of the estimated historic area of the marine subsystem, based on an 1891 navigation chart, indicates that about 109 acres were filled (51 acres - backwater "lagoon", 36 acres - tideland along the channel, 22 acres - subtidal land in the channel) in construction of the boat basin (ODFW, 1979); however, the boat basins created 36 acres of subtidal habitat through excavation. The net result of these activities is that the marine subsystem being presently about half its historic size (ODFW, 1979).

The above figures regarding the alteration of the marine subsystem of the Chetco Estuary are questioned by Curry County based upon data which postdates the 1891 chart used by ODFW in making its comparisons. Maps and photographs made after 1891 indicate that much of the backwater area referred to as a lagoon has naturally filled prior to the construction of the boat basins. Therefore, much of the area that indicated to be alteration of the estuary was actually fill or excavation of an upland pasture (personal communication, Rocky McVay, 1984). Other alterations to the estuary include shore protection structures, gravel removal and small fill areas upstream from the port facility which have altered the intertidal areas of the estuary in the riverine subsystem (DSL permits issued various years).

The cummulative effect of alterations to the Chetco Estuary has in some cases reduced the intertidal area and in some cases increased the subtidal area of the estuary. The construction of the dikes, jetties and boat basins in the marine subsystem has reduced the gravel intertidal areas and replaced it with subtidal marine areas as well as rocky substrate intertidal habitat on the jetty and dike. ODFW indi-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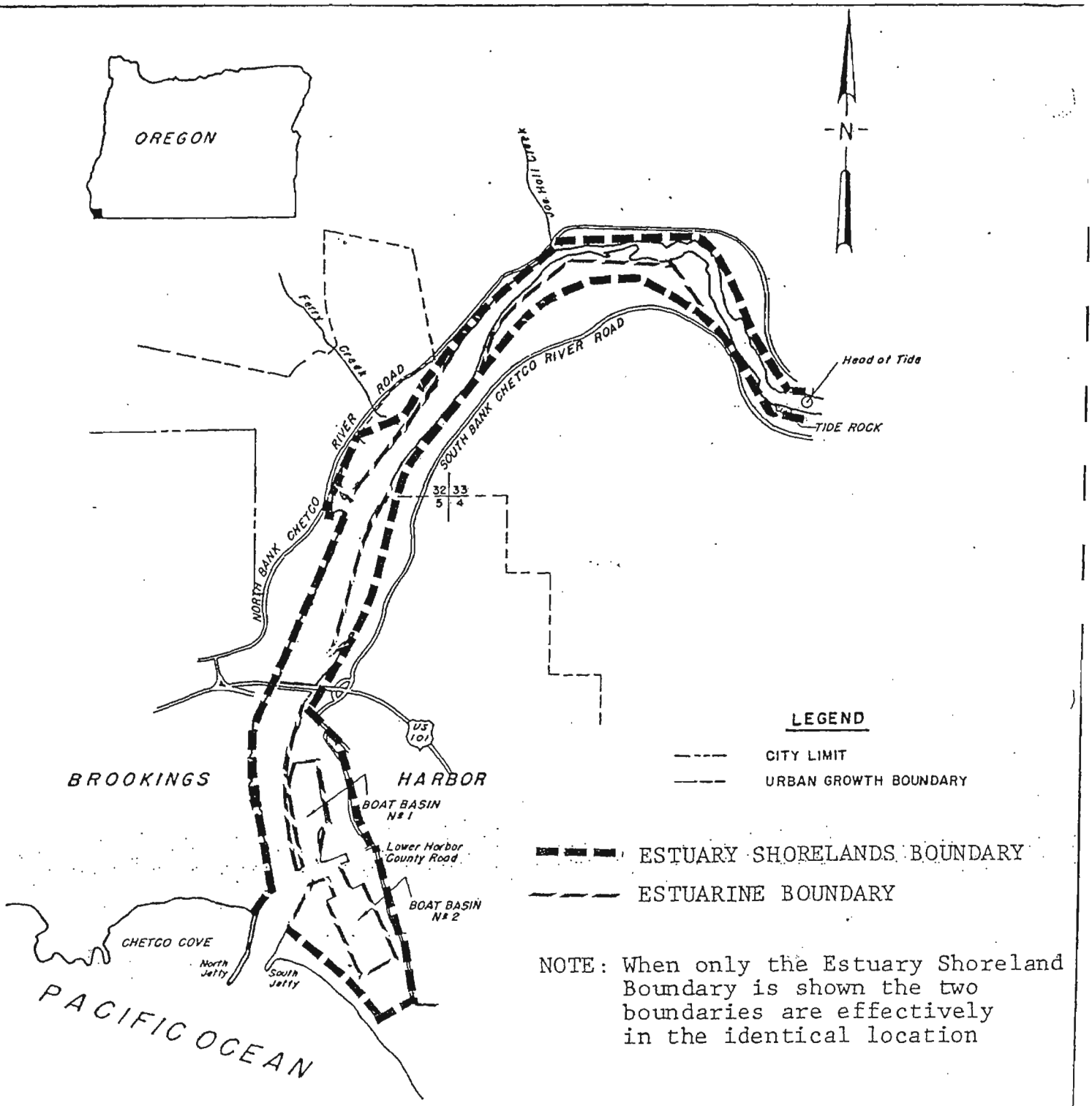
03' 45'
BROOKINGS
CHETCO RIVER
6
5
4
8
101
1
PACIFIC OCEAN
124° 15'
STATE OF OREGON
ADVISORY COMMITTEE TO THE
STATE LAND BOARD
CHETCO RIVER
LANDFILL INVENTORY
1972
PACIFIC OCEAN TO TIDE ROCK
0
1000
3000
6000
FEET
Drawn by Bob Emerson



NOTE: When only the Estuary Shoreland Boundary is shown the two boundaries are effectively in the identical location

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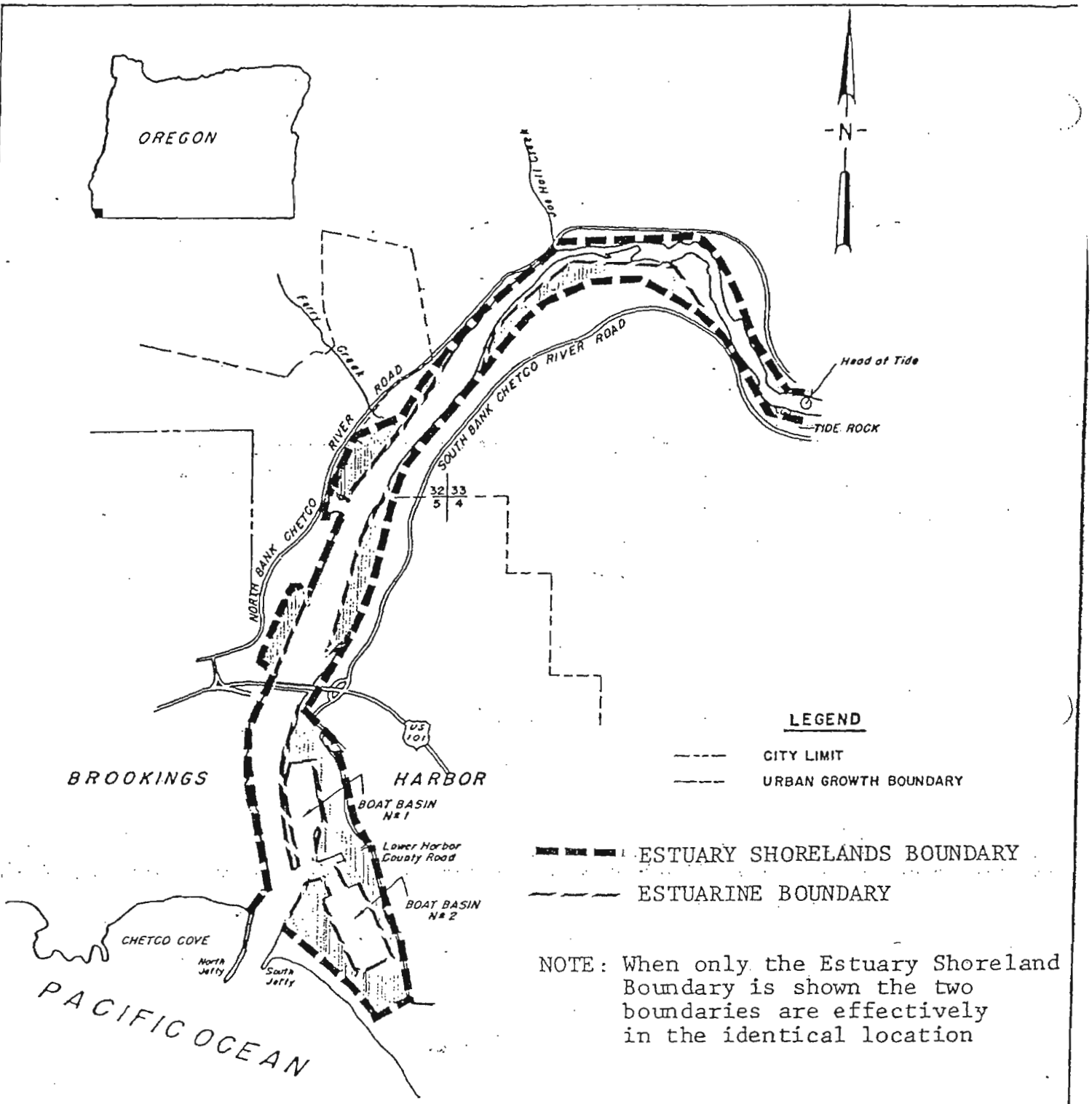

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cates that the "lagoon and sill" formation which historically occurred at the mouth of the Chetco River may have been important to the growth and survival of fall chinook salmon that reared in the estuary in the summer (Reimer, 1973). The extensive modifications to the Chetco estuary may have had a negative impact on such estuarine rearing of these salmon (ODFW, 1979). The modifications to the estuary by construction of the boat basin has increased the subtidal area of the marine subsystem which will probably sustain a marine fish population as long as water quality is maintained (ODFW, 1979).

Future alterations in the development management unit will include periodic maintenance dredging of the authorized channel and boat basin. Some minor filling could occur in the boat basin if necessary. As these areas are already substantially modified or man-made, the cumulative effects on biological values are expected to be minimal.

16.4.3. Chetco Estuary Plan

Estuary Boundary Determination

Figure 16.4.0 shows the Estuarine Boundary and the Estuary Shorelands Boundary in the Chetco Estuary. These boundaries are based on the available data for MHW from the Oregon Division of State Lands (DSL) flood elevation data from the U.S. Federal Emergency Management Agency floodplain maps, local aerial photographs, and field inspection of specific sections of the shoreline. Generally, the Estuarine Boundary is based on the line of Mean Higher High Water (MHHW) as determined by local modification of the Mean High Water line shown on the DSL maps or the line of non-aquatic vegetation whichever is higher. The MHHW line is considered to be a representative boundary for the inclusion of all intertidal areas in the estuary and as a logical separation between the "estuarine" and "shoreland" areas except in certain scattered locations where aquatic vegetation is found above the MHHW elevation. The Division of State Lands and Corps of Engineers claim jurisdiction up to the line of non-aquatic vegetation in the permit process (see DSL Administrative Rule on Removal and Fill, OAR 141.85-105). As the scale of the plan map does not permit these areas to be identified accurately, the DSL and Corps will identify the line of non-aquatic vegetation on a case-by-case basis during permit review.

The estuary Shorelands Boundary is based upon the seven criteria stated in Statewide Planning Goal 17 which states the following:

"(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 spawning 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; and

(7) Coastal headlands."

(LCDC, 1978)

These criteria are general and are intended to be interpreted specifically with each situation to which they are applied.

The Estuarine Boundary was determined for the Chetco Estuary by interpreting the boundary criteria as follows:

1. Lands considered to "limit, control, or ...directly affected by the hydraulic action of the water body" are interpreted to be those lands which are located within the floodway. The use of this criterion is based upon the best available information on the location of the Chetco River floodplain. Most of the Estuarine Shoreland Boundary is defined as the floodplain boundary as shown on the Chetco River floodplain maps.

2. Areas of adjacent areas of geologic instability as interpreted to mean "slump topography" are not found along the Chetco. Several areas of "critical streambank erosion" (as determined by Department of Geology and Mineral Industries) are found, and are noted on the maps. (DOGAMI, 1976)

3. "needed riparian vegetation" has been identified in numerous areas. These occur along the shoreline of both sides of the river where the effects of stream shading are greatest.

4. Other areas in the lower estuary influence the identification of the Estuarine Shoreland Boundary through the Goal criteria. These areas are the boat basin back-up lands due to their proximity to the authorized channels and existing development. Those areas that are considered to be "especially suited for water dependent uses: (ESWD) are included within the shorelands boundary.

Figure 16.4.0 shows the location fo the Estuary Shorelands boundary for the Checto Estuary based on the above determinations.

Estuary Management Unit Designation:

Statewide Planning Goal 16 requires that "local governments, special districts, state and federal agencies shall classify the Oregon estuaries to specify the most intensive level of developmen- or alteration which may be allowed to occur within each estuary." Goal 16 further requires that "based upon inventories, the limits imposed by the overall Oregon Estuary Classification, and needs identified in the planning process, comprehensive plans for coastal areas shall:

(1) identify each estuarine area;

(2) describe and maintain the diversity of important and unique environmental, economic and social features within the estuary;

(3) classify the estuary into management units; and

(4) establish policies and use priorities for each management unit using the standards and procedures set forth below."

Goal 16 further requires the following with respect to the management unit classification:

"When classifying estuarine areas into management units, the following shall be considered in addition to the inventories:

(1) Adjacent upland characteristics and existing land uses;

(2) Compatibility with adjacent uses;

(3) Energy costs and benefits; and

(4) The extent to which the limited water surface area of the estuary shall be committed to different surface uses."

Goal 16 specifies that three types of management units shall be applied, where appropriate, to Oregon estuaries; 1) natural units; 2) conservation units, and 3) development units. These units each have specific purposes and where applied have allowed uses which are related to the intended purpose.

Natural Management Units:

Natural estuarine designations are managed to preserve the natural resources in recognition of the dynamic natural geological and evolutionary processes. Natural areas may include tidal marshes, mud-sand flats, seagrass and algae beds that, because of factors such as size, biological productivity and habitat value, play a vital role in the functioning of the estuarine ecosystem. Natural areas are designated to assure protection of significant fish and wildlife habitats of continued biological productivity and of scientific research and educational needs. The following uses and activities are allowed within "Natural" estuarine designations:

- low intensity water dependent recreation
- research and educational observation
- navigational aides such as beacons and buoys
- passive restoration.
  - "and where consistent"
- aquaculture
- communication facilities
- active restoration
- low water bridges
- maintenance and protection of existing man-made features
- rip-rap limited to the protection of uses existing as of October 7, 1977 (see policy number 4).

Conservation Management Units:

Conservation estuarine designations are managed for low to moderate intersities of uses and activities with emphasis on maintaining the integrety and continuity of aquatic resources and recreational benefits. Conservation areas are designated for long-term uses of renewable resources that do not require major alterations of the estuary, except for purposes of restoration. Conservation areas include oyster and clam beds and fish and wildlife habitat smaller or of less biological significance than natural designations.

Conservation areas also include partially altered areas adjacent to existing development of moderate intensity.

The following uses and activities are allowed within Conservation estuarine designations:

- uses allowed in "Natural" designations
- active restoration measures
- aquaculture facilities
- communication facilities
  - "and where consistent with resource
- high intensity water-dependent recreation
- maintenance dredging of existing facilities
- minor navigational improvements
- mining, aggregate rock and mineral extraction
- water-dependent uses requiring occupation of water surface area by means other than fill
- bridge crossings
- dredged marinas and boat basins without jetties or channels (use natural channels)
- waste discharge meeting state and federal water quality standards.

Shallow Draft Development Management Units:

Shallow Draft Development areas are managed for navagagation and other water-dependent uses, consistent with the need to minimize damage to the estuarine system. Shallow Draft Development areas include: areas suitable for shallow draft navigation, including shipping and access channels or turning basins; in water dredged material disposal sites; 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.

The following uses and activities are allowed within Shallow Draft Development designations:

- navigation;
- water-dependent commercial;
- water-dependent industrial;

  - "and where consistent with resource compatibilities of the areas and the purposes of this management designation"

- uses allowed in "Natural" and "Conservation" designations
- water-related and non-dependent, non-related uses not requiring fill; and
- mining, aggregate rock and mineral extraction.

Curry County has identified a shallow draft development management unit, a conservation management unit and two natural management units in the Chetco Estuary. Figure 16.4.P shows the location of these management units within the estuarine boundary. Each of these management units has a specific location and description which is discussed below.

Shallow Draft Development Mangement Unit

This designation consists of the Army Corps of Engineers authorized entrance channel between the two jetties, the two boat basins and upstream from the mouth of the boat basin for a distance of 500 feet with the exception of a small rocky intertidal area at the base of the west jetty. This designation applies to all estuary area within the estuarine boundary (below MHHW). The area is designated shallow draft development to allow for the future maintenance of the channel and boat basin including an area in the river channel for tapering the dredged channel upstream which is necessary for shallow-draft navigation in the authorized channel.

Conservation Management Unit

This designation consists of the entire estuarine area from above the entrance channel to Tide Rock which is near the head of tide, with the exception of a small natural area at the end of the slough in Snug Harbor. This designation applies to all estuary area within the estuarine boundary (below MHHW or the line of nonaquatic vegetation, whichever is higher). The area is designated conservation to maintain the aquatic resources of the area while permitting the development of recreational marinas, together with minor dredging necessary to maintain the natural channel, as consistent with the resource capabilities of the area, and the purposes of the management unit.

Curry County proposes the following development activities in the conservation management unit upstream of the Highway 101 bridge:

1. Dredging a small-boat marina by excavation of upland at the Ganty and Kemp properties with a short access channel to be dredged to the natural channel near the northwest bank.

2. Dredging out a shallow subtidal and intertidal mud flat area at Snug Harbor to expand the existing moorage to accommodate up to 80 recreational boats, and

3. Limited dredging to maintain the natural main river channel near the northwest bank at a depth of -5 to -6 feet MLLW and 40-50 feet in width up to Snug Harbor. This qualifies under Goal 16 as "minor navigational improvement," as it involves maintenance of the natural channel. There is potential for recreational boat navigation at existing natural depths and minor dredging will be needed to remove accumulated sediment from winter flooding and maintain these depths.

The resources present on these areas are as follows:

The main channel upstream of the boat basin currently varies between -4 and -10 feet MLLW, with minimum depths above the Highway 101 bridge being between -4 and -5 meet MLLW (Slotta and Tang, 1976). The river channel between the boat basins and the bridge is seasonally covered with green algae, which may function as protection and food for invertebrates and small fish according to ODFW report (1978, p. 13). The channel above the bridge is not specifically addressed in the report, but probably is very similar. The report suggests stat the upstream part of the estuary is probably an important rearing area for chinook salmon and other fish (p. 19).

Snug Harbor is mainly an intertidal sand/mud flat, with a deep subtidal hole at the entrance. The same report suggests that this sheltered slough is likely to be a fish rearing area (p. 18). However, a site inspection (June 25, 1984) by the County and DLCD staff, indicates that the intertidal flat is very shallow and barely covered except at high tides. Aqautic vegetation is very sparse and there were no signs of burrowing benthic organisms which are normally typical of intertidal mud flats or other estuaries.

According to verbal communication with the owner, the area was formerly much deeper and used for moorages, but flooding in the 1964 flood and subsequently up until five years ago has caused the area to fill in. This rapid natural sedimentation apparently accounts for the low level of vegetative establishment or biological activity.

At the Kemp property, the only area to be affected would be the narrow intertidal zone between the upland which would be dredged out and the natural channel near the northwest bank. This zone is similar to the channel, with a gravel substrate which probably supports seasonal growth of green algae.

The expected impact of the proposed developments would be as follows. Maintenance of the existing natural deep-water channel on the northwest side of the river would require

periodic minor dredging to maintain the depth of -5 to -6 feet MLLW. This would displace algae growth and cause some reduction of fish habitat, but this growth could be expected to re-establish the following year after spring freshets subside. There would be a temporary suspension of sediment during dredging. Algae growth is in any case replaced annually after winter flows scour the channel. As the entire channel and adjacent intertidal areas can support algae growth and the area to be affected would only be a small fraction of the total, and effects on biological productivity and water quality would be temporary, it may be concluded that the resources of the area are able to assimilate the activity and continue to function as a conservation unit.

Also at the Kemp and Ganty properties the impact of dredging a shor access through the narrow intertidal and shallow subtidal zone to the dredged marina would be similar to that of maintaining the channel. The area affected would be so small in relation to the total area of the estuary supporting algae algae growth that impacts would not be significant.

Dredging a boat moorage at Snug Harbor would eliminate a little over one acre of shallow intertidal mudflats and convert it to subtidal. This would eliminate the only area of this type on the estuary but as noted above, Snug Harbor has been subject ot heavy sedimentation and biological values are relatively low. Creation of the subtidal area would return the area to a condition which existed at some time in the past and would possibly increase the area that could be utilized by fish. It may therefore be concluded that the resources of the area are able to assimilate the activity. The subtidal area that would be created would continue to function as a conservation unit.

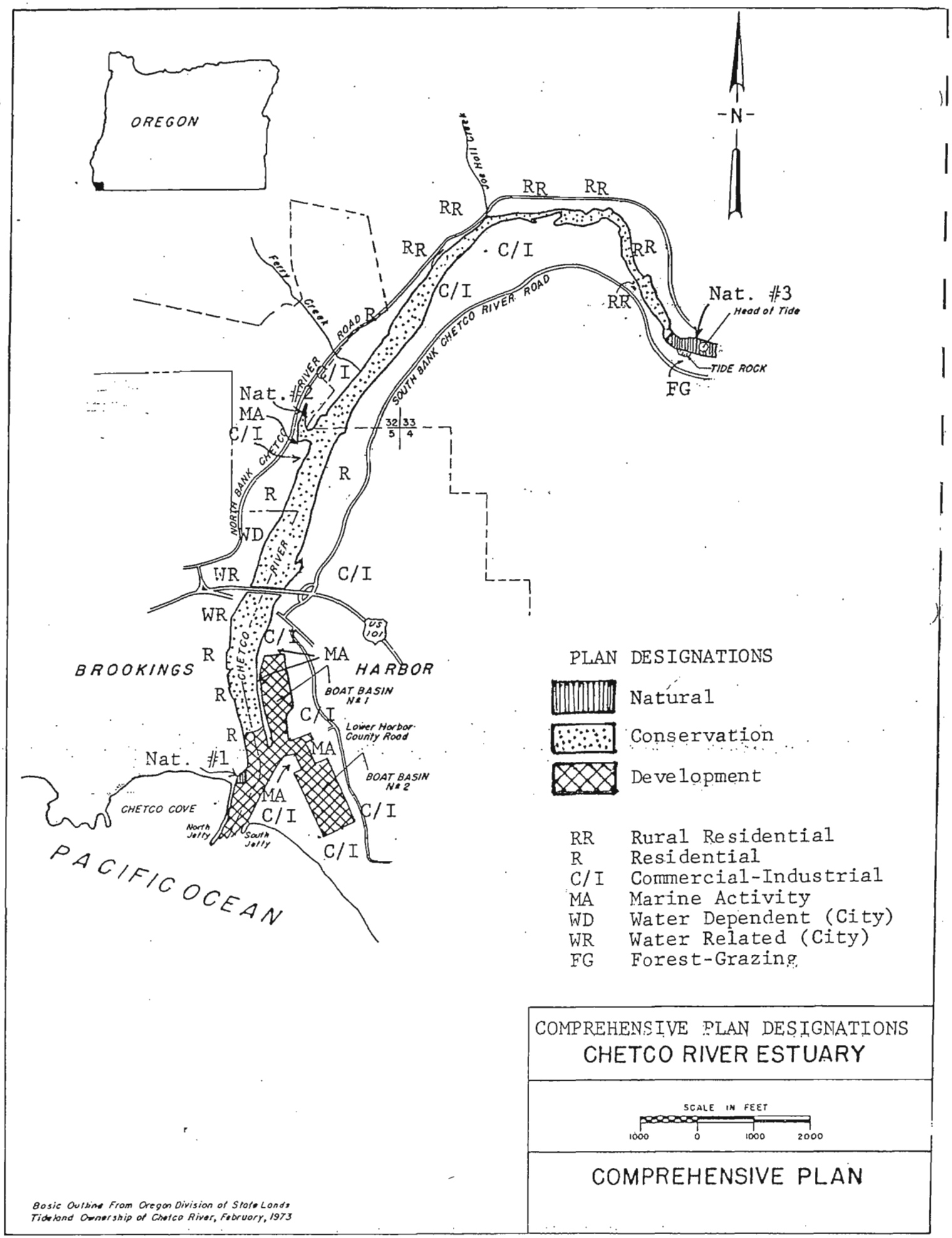
Therefore, Curry County finds that, based on the facts and conclusions presented above, the proposed maintenance dredging and dredging of marinas at Snug Harbor, the Kemp and Ganty properties are consistent with the resource management unit.

Natural Management Unit No. 1

This is a cobble, gravel, and bedrock, intertidal area at the base of the northwest jetty which may have attached algae beds which provide a food source for marine fishes.

Natural Management Unit No. 2

This is a freshwater wetland at the end of the slough extending up from Snug Harbor. It begins approximately 50 feet upstream from the second of two culverts which pass under the nearby county road, and continues upstream to the


OREGON
-N-
JOE HILL CREEK
RR
RR
RR
RR
C/I
RR
C/I
RR
Nat. #3
Head of Tide
TIDE ROCK
FG
SOUTH BANK CHETCO RIVER ROAD
Ferry Creek
R
RIVER ROAD
C/I
Nat. #2
MA
C/I
32 33
5 4
CHETCO
NORTH BANK
R
R
WD
RIVER
WR
C/I
WR
US 101
C/I
MA
BROOKINGS
HARBOR
R
CHETCO
BOAT BASIN #1
R
C/I
Lower Harbor County Road
R
MA
Nat. #1
BOAT BASIN #2
MA
C/I
C/I
CHETCO COVE
North Jetty
South Jetty
C/I
PACIFIC OCEAN
PLAN DESIGNATIONS
Natural
Conservation
Development
RR Rural Residential
R Residential
C/I Commercial-Industrial
MA Marine Activity
WD Water Dependent (City)
WR Water Related (City)
FG Forest-Grazing
COMPREHENSIVE PLAN DESIGNATIONS
CHETCO RIVER ESTUARY
SCALE IN FEET
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COMPREHENSIVE PLAN
Basic Outline From Oregon Division of State Lands
Tideland Ownership of Chetco River, February, 1973

line of nonaquatic vegetation. Much of this unit is probably above MHHW and is only inundated during periods of high flow, but is part of the estuarine area because it contains typical aquatic vegetation (cattails, rushes, etc.) and is contiguous with the intertidal area.

Natural Management Area No. 3

This is the intertidal and subtidal area at Tide Rock which is at the head of tide for the estuary. The aquatic bed in this area is an algae bed which contributes to the productivity of the estuary.

Mitigation and Restoration

The Chetco Estuary lacks diked intertidal marsh areas and other sites of biological potential which are suitable for the creation or restoration of intertidal habitat in fulfilling mitigation requirements. The limited extent of the Chetco Estuary and the scarcity of potential mitigation or restoration sites could limit future dredge and fill actions requiring mitigation unless the Director of the Division of State Lands exercises the statutory power to partially waive mitigation under certain specific conditions.

The Oregon Mitigation Law, ORS 541.626, states that the Director of the Division of State Lands "shall require mitigation as a condition of any permit for filling or removal of material from an intertidal or tidal marsh area of an estuary. As defined:

> "Mitigation means the creation, restoration or enhancement of an estuarine area to maintain the functional characteristics and processes of the estuary, such as its natural biological productivity, habitats and species diversity, unique features and water quality."

However, under ORS 541.626 (4)(a), the Director may waive mitigation in part if it is determined that:

a) There is no alternative manner in which to accomplish the purpose of the project;

b) There is no feasible manner in which mitigation could be accomplished;

c) The economic and public need for the project and the economic and public benefits resulting from the project clearly outweigh the potential degradation of the estuary;

d) the project is for a public use; and

e) The project is water dependent or the project is publicly owned and water related; or

Mitigation may be waived in full or in part for certain other types of activities under ORS 541.026 (4)(b):

a) Filling for repair and maintenance of existing functional dikes and negligible physical or biological damage to the tidal marsh or intertidal areas of the estuary will result;

b) Riprap to allow protection of an existing bankline with clean, durable erosion resistant material when a need for riprap protection is demonstrated that cannot be met with natural vegetation and no appreciable increase in existing upland will occur:

c) Filling for repair and maintenance of existing roads and negligible physical or biological damage to the tidal marsh or intertidal areas of the estuary will result:

d) Dredging for authorized navigation channels, jetty or navigational aid installation, repair or maintenance conducted by or under contract with the Army Corps of Engineers;

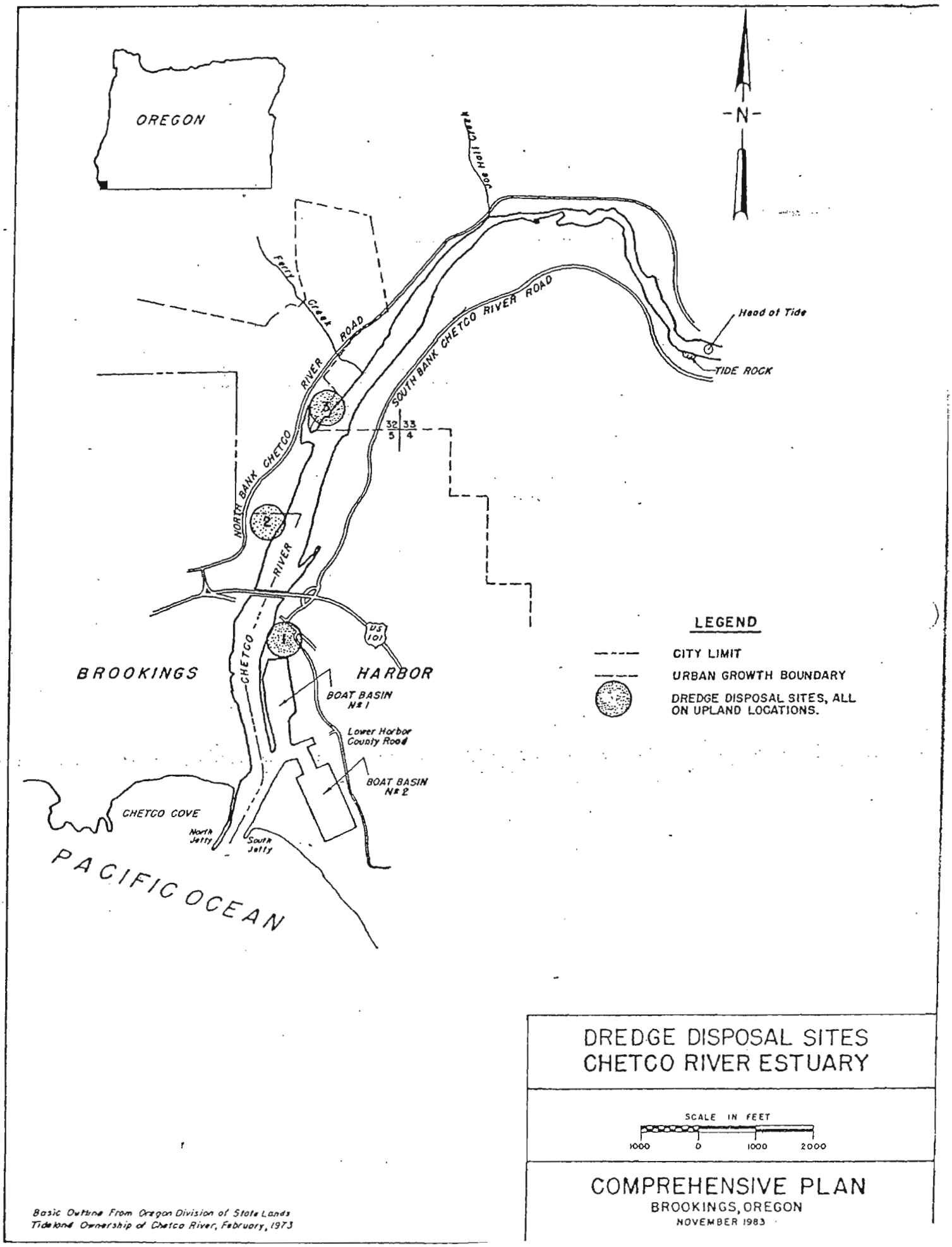
e) Dredging or filling required as part of an estuarine resource restoration or enhancement project agreed to by local, state, and federal agencies; or

f) A proposed alteration that would have negligible adverse physical or biological impact on estuarine resources.

Oregon mitigation law also permits the Director to consider "the extent of compensating activity inherent in the proposed activity" (ORS 541.626 (3) (e)).

The proposed marina projects need to be examined in the light of these requirements.

The proposed marinas at the Kemp and Ganty sites would provide approximately 90 permanent boat moorages, should not require mitigation as it would be excavated from what was once a cultivated field. This basin would expand the water surface area of the estuary, and create a shallow subtidal habitat type, possibly with rocky intertidal areas if a breakwater is built. There would be very limited effects on an existing intertidal area between the natural channel and the field. This project might actually generate excess mitigation credit, depending on the type of habitat that is created.



DREDGE DISPOSAL SITES
CHETCO RIVER ESTUARY

COMPREHENSIVE PLAN
BROOKINGS, OREGON
NOVEMBER 1983

The proposed dredging out of an intertidal area at Snug Harbor could be mitigated at least in part by excavating adjacent land, increasing the water surface of the existing harbor.

As on the Rogue River, it may be possible to identify other upland areas next to the estuary in a sheltered location which might qualify as mitigation areas by lowering the surface to an intertidal level. However, opportunities are even more limited than on the Rogue.

Again, as on the Rogue River, restoration actions could occur in areas subject to excessive erosion or sedimentation. However, it is unlikely that any such actions would qualify to mitigation credit under the mitigation rules, unless additional estuarine area is created from upland or unless they qualify as "enhancement" (OAR 141.85.242 (7) and (8)).

Dredge Material Disposal

Dredge material from the annual maintenance dredging of the navigation channel is currently disposed of at an authorized deep water disposal site. This site will probably accommodate all dredge material that will be removed from the present channel during the planning period. Future development upriver will require periodic minor dredging of shoals to maintain natural depths (i.e. 6 ft. MLLW with a maximum width of 50 ft.) and marinas to be dredged from upland areas. This dredge material may either be used in the construction of the marina facilities or be stockpiled on upland for subsequent use as aggregate or upland fill.

Figure 16.4.Q identifies the location of 12 acres of upland sites which can be used to stockpile dredged materials. Material dredged from the Chetco River is a valuable natural resource and could be sold in the market, as are the several hundreds of thousands of cubic yards that are now excavated and sold annually. This is demonstrated by the fact that material dredged from the Port of Brookings' development of its Basin No. 2 was stockpiled and trucked away shortly after dredging. Therefore it is anticipated that materal from upstream channed maintenance could be stockpiled at any of the identified sites for sale as gravel.

Zoning and Plan Implementation

The comprehensive plan for the Chetco Estuary is implemented by the Zoning Ordinances for Curry County and the City of Brookings. The principal zone utilized by these ordinances to implement those aquatic areas within the Estuary Shorelands Boundary is the Estuary Resource (ER) Zone. This zone specified the outright and conditional uses allowed on the aquatic areas of the estuary by management unit designation. The uses specified in this zone are consistent with the resource values and characteristics of the defined estuary management units.

Upland areas bordering the estuary are designated for various uses including residential, commerical and industrial. These plan designations are implemented with the various zones described in the city and county plan. Figure 16.4.R shows the zoning of upland areas adjacent to the Chetco Estuary. This zoning is compatible with the shallow-draft development designation of most of the estuary aquatic area.

The Port of Brookings has developed a subarea plan for the port area which recoginzes the various existing and planned uses for the port facility. Figure 16.4.S is a zoning map of the port facility which shows the implementation of the various zoning designations within the Estuary Resources (aquatic) zone and Marine Activity (ESWD) zone.

The Port-proposed zoning complies with the requirements of Statewide Planning Goal 16 - Estuarine Resources in that:

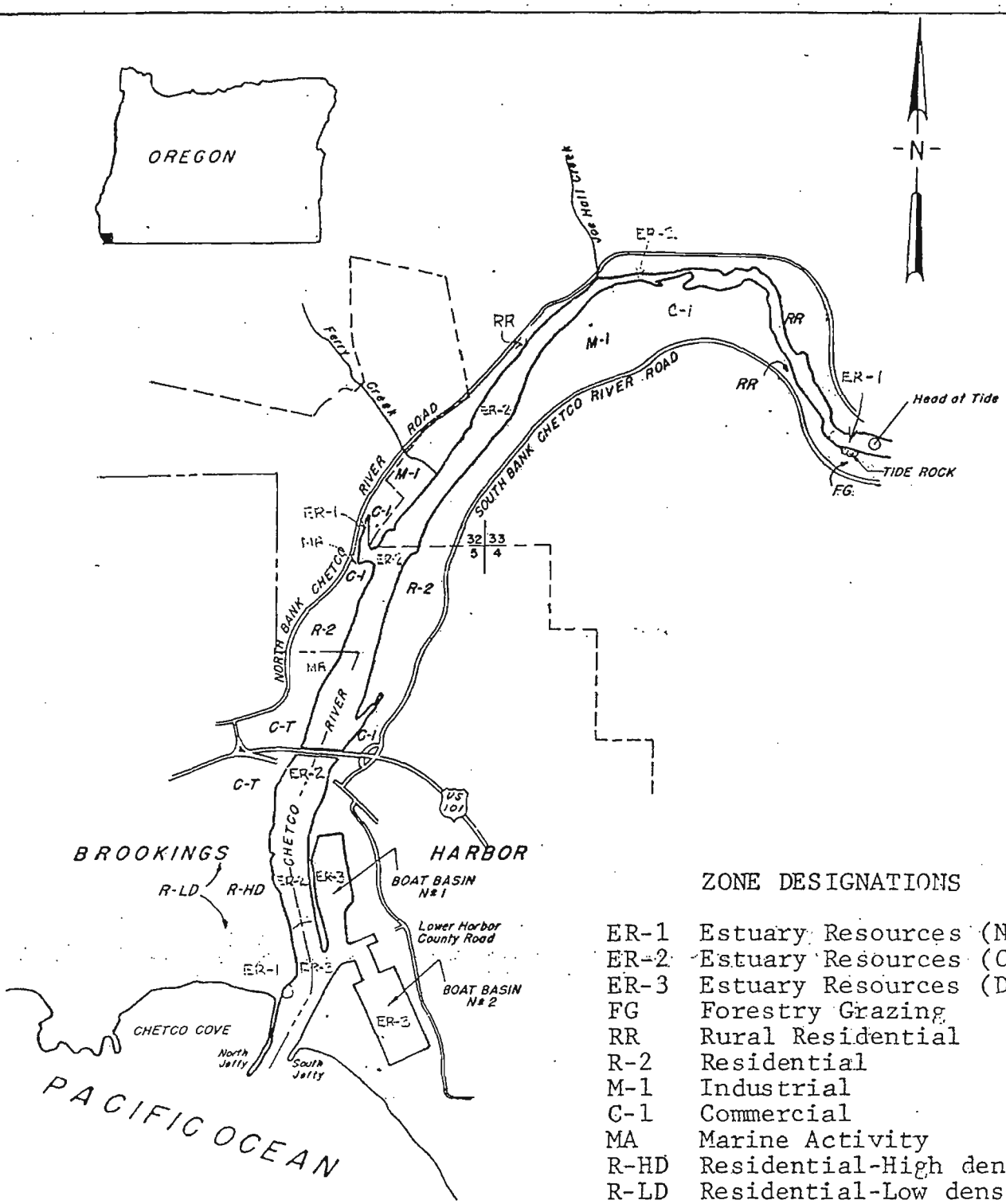
1. it is required for navigation or other water-dependent uses that require an estuarine location and is within the resource capabilities of the river.

2. it is supported by a public need that has been demonstrated by the fact that existing public boat moorage facilities are full, with a waiting list, and by the Oregon Department of Economic Development reports on the state of the area's economy and projected needs for boat moorage facilities;

3. alternative upland locations for additional port facilities on the Chetco River do exist; and

4. beneficial, rather than adverse, impacts on the natural resources of the river will result from the proposed zoning.

The Port of Brookings zoning falls under the provisions of OAR 660-17-000 which states under the purpose of classifying estuaries: "To assure diversity among the estuaries of the State, the Estuarine Resources Goal requires in part that LCDC, with the cooperation and participation of local governments, special districts, and state and federal agencies shall classify the Oregon estuaries to specify the most intensive level of development or alteration allowable within each estuary."



ZONE DESIGNATIONS

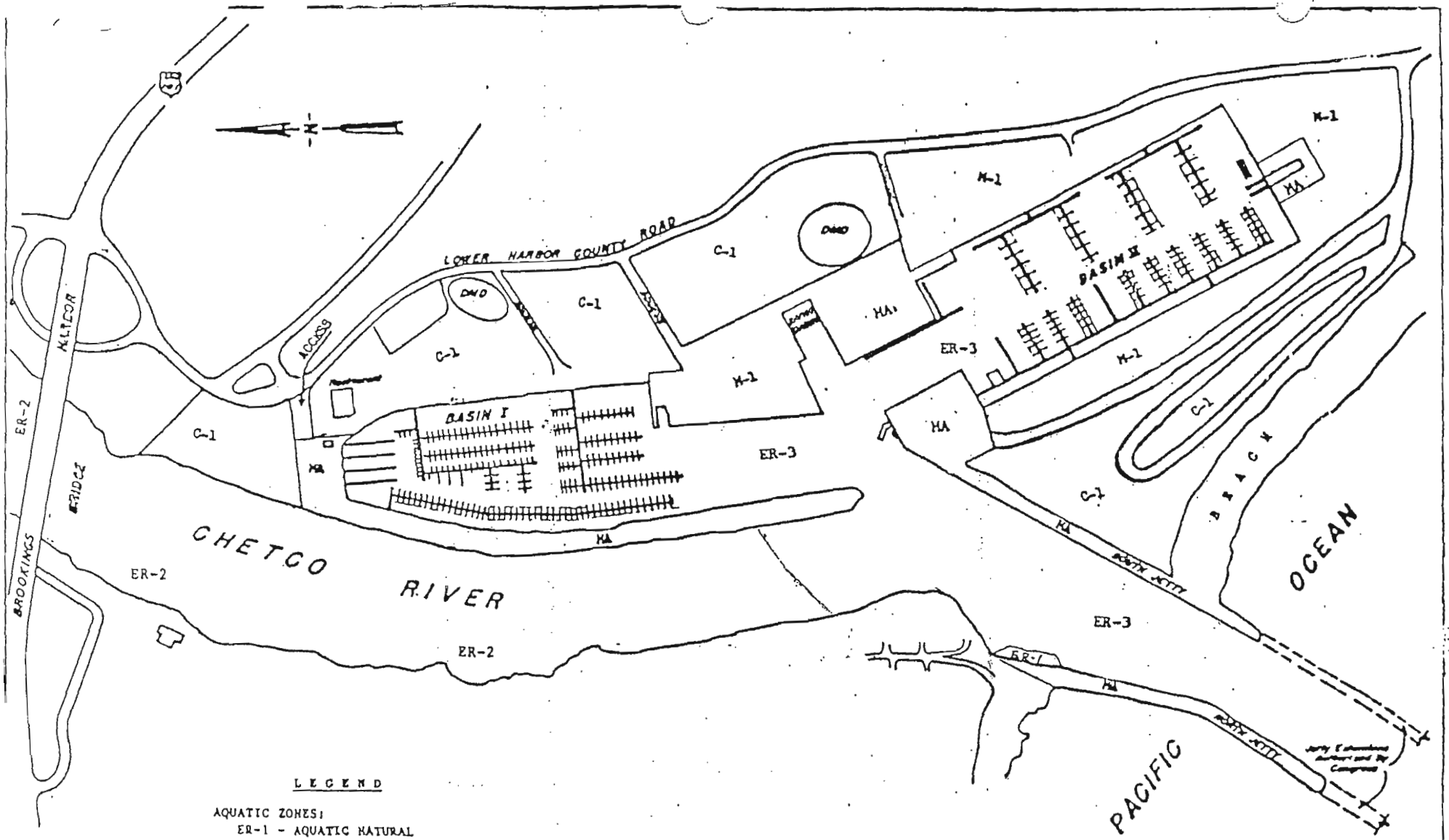
ER-1	Estuary Resources (Nat.)
ER-2	Estuary Resources (Con.)
ER-3	Estuary Resources (Dev.)
FG	Forestry Grazing
RR	Rural Residential
R-2	Residential
M-1	Industrial
C-1	Commercial
MA	Marine Activity
R-HD	Residential-High density(City)
R-LD	Residential-Low density(City)
C-T	Commercial Tourist(City)

ZONING MAP
CHETCO RIVER ESTUARY

SCALE IN FEET
1000 0 1000 2000

COMPREHENSIVE PLAN
BROOKINGS, OREGON
NOVEMBER 1983

Basic Outline From Oregon Division of State Lands
Tideland Ownership of Chetco River, February, 1973



LEGEND

AQUATIC ZONES:
- ER-1 - AQUATIC NATURAL
- ER-2 - AQUATIC CONSERVATION
- ER-3 - SHALLOW DRAFT DEVELOPMENT

SHORELAND ZONES:
- C-1 - COMMERCIAL ONE ZONE
- DMD - DREDGE MATERIAL DISPOSAL SITE
- MA - MARINE ACTIVITY ZONE
- M-1 - INDUSTRIAL ZONE

ZONING - PORT OF BROOKINGS & LOWER CHETCO RIVER ESTUARY

SCALE IN FEET

COMPREHENSIVE PLAN

The Port of Brookings zoning also falls under the provisions of Chapter 15, Oregon Laws 1982, which states:

> "Section 1. Based on a study of relevant data, including but not limited to employment, sales of goods and services, financial activity in the private sector and governmental revenues, the Legislative Assembly finds and declares that an economic downturn exists throughout Oregon, that economic recovery is a matter of state-wide concern and that there exists a public need for enhancement of job-producing enterprises in Oregon . All state agencies and local governments are directed to take the existence of this problem into consideration in the exercise of all their duties functions and powers."

Section 17 of House Bill 2295, Chapter 827, Oregon Laws 1983, which relates to land use and sponsored at the request of Governor Atiyeh, also establishes a Legislative finding and directions relating to Oregon's economy in the following;

> "Section 17. (1) In addition to the findings and policies set forth in ORS 197.005, 197.010 and 215.243 the Legislative Assembly finds and declares that, in carrying out state-wide comprehensive land use planning, the provisions of adequate opportunities for a variety of economic activities throughout the state is vital to the health welfare and prosperity of all the people of the state."
>
> (2) By the adoption of new goals or rules, or the application, interpretation or amendment of existing goals or rules, the commission shall implement all of the following:
>
> (d) Comprehensive plans and land use regulations shall provide for compatible uses on or near sites zoned for specific industrial and commercial uses.

The Port of Brookings feel that the above findings provide the basis for supporting the comprehensive plan designation and zoning of the Chetco Estuary which will allow the further expansion of developmental uses upstream from the present boat basin to Snug Harbor in order to best serve the economic needs of the Brookings area and Curry County (letter Port of Brookings, Novrmber 2, 1983).

16.5 MINOR ESTUARIES

16.5.1 Introduction

There are six minor estuaries in Curry County which are located at the mouths of the local coastal rivers and streams. Floras Creek, Sixes River, Elk River, Euchre Creek, Hunter Creek, Pistol River, and Winchuck River all have small estuarine areas located at their entrance to the ocean (see Figure 5.8.A). The drainage basin for each of these streams are located on the western slope of the coastal mountains of Curry County and vary somewhat in size and annual discharge. Table 5.8.C shows the available statistical information regarding these rivers. With the exception of Hunter Creek all of the minor estuaries are located in the rural areas of the county and are generally surrounded by agricultural or forest uses. The Hunter Creek estuary is located within the City of Gold Beach urban growth boundary. The Floras Creek Estuary is part of the New River coastal drainage system which enters the ocean near Four Mile Creek in Coos County so that the estuary plan for this area partially involves the Coos County Comprehensive Plan.

Table 16.5.A lists the general statistics of the minor estuaries in Curry County.

TABLE 16.5.A

MINOR ESTUARY DATA

River	Estuarine Area (Ac.)	Distance to Head of Tide	Tidelands Area (Ac)	Channel Area (Ac.)	Ave. Annual Yield at Mouth (Ac.-ft.)
Floras/ New River	125	3.5*	NA	NA	229,000
Sixes River	87	1.6	18	69	440,000
Elk River	56	1.0	20	36	330,000
Euchre Ck.	47	0.7	NA	NA	97,000
Hunter Ck.	50	1.25	NA	NA	122,000
Pistol River	59	1.0	25	34	360,000
Winchuck River	31	0.9	3	28	62,400

*Distance to Coos County Line.

16.5.2 Minor Estuary Inventory

All minor estuaries in Curry County are typical of those found in Klamath Mountain geological province and have limited surface area and short length due to the recent tectonic uplift

of the coastal area. Other inventory considerations are also very similar for all of these estuaries so that they are briefly summarized by catagory for each of the estuaries described.

Floras Creek - New River Estuary:

a) Geographic - Geological Characteristics:

The Floras Creek drainage system is the northernmost coastal stream drainage in Curry County which drains the Langlois Mountain - Edson Butte area. Floras Creek reaches the coast just north of Floras Lake where it combines with the outflow of the lake to form New River. New River is a northerly flowing stream which is located along the easterly margin of the coastal dune field. The natural mouth of New River is located in Coos County approximately 3.5 miles north of the county line; however, occasionally New River is diverted through the dune field to discharge directly into the ocean in Curry County. This causes the head of tide to be temporarily moved into Curry County and the upper part of New River is estuarine. The predominant substrate in this estuary is sand and gravel.

b) Hydrological Characteristics:

The head of tide for the Floras Creek - New River estuary has been observed at Croft Lake and New Lake in Coos County (DSL 1979). However, extreme tidal ranges undoubtedly move the head of tide southerly into Curry County. Water level changes related to tidal change have been observed on New River near the junction of Floras Creek and the Floras Lake outlet. Accurate measurements of the stream flow, tidal range, tidal discharge, and mixing within this estuary are not available but these hydrological characteristics are probably similar to other minor estuaries in the county.

c) Biological Characteristics:

That part of the Floras Creek - New River estuary in Curry County is entirely within the "riverine" subsystem. The limited intertidal areas of this estuary are primarily sand and gravel bars. No tidal flats, tidal marshes, or subtidal aquatic beds are identified in this estuarine area. Data is lacking with regard to the presence of oyster or clam beds in the Floras Creek estuary. Floras Creek is known to be an anadromous fish stream for Chinook, Coho, steelhead and sea-run cutthroat trout. The habitat values of the estuary are relatively low due to its limited area and few habitat types. The estuary area proper is limited to the New River stream channel which separates the coastal dunes on the west from the pasture to the east. Riparian

vegetation is very limited with virtually no forest vegetation and only grasses being present by the pasture. The dune area to the west is essentially devoid of vegetation due to the active migration of the sand. The dune field and adjacent estuarine area are used by the shore birds and is noted as being suitable for the Snowy Plover.

d) Social and Cultural Characteristics:

Lands adjacent to the Floras Creek - New River estuary are in private ownership and are in agricultural use. The agricultural lands lying to the east of New River are part of the historic Star Ranch and Thrift Ranch (see Curry County Comprehensive Plan - Natural Resources Inventory Document, 1983). The coastal dune field is an identified habitat area for the Snowy Plover which is a threatened species of shore bird. Aesthetically the Floras Creek - New River estuary has value as a beach recreation area; however the beach has access only by boat from Floras Lake or by hiking via the Coast Hiking Trail. Present uses in the vicinity of the estuary are predominantly agricultural with sheep grazing on pastures to the east of the estuary.

e) Economic Characteristics:

This estuary is primarily utilized for recreational use; however, due to its limited size and difficult access it is not used to great extent by sport fishermen. There are no gravel extraction sites or other commercial or industrial uses within the estuary. Sport fishing is the only water dependent/water related use within this estuary.

f) Estuary Classification and Boundary:

The Floras Creek - New River estuary is classified as a "Natural" estuary for its entire area. The estuary boundary for this estuary is determined to be the mean higher high tide and the line of non-aquatic vegetation where such vegetation is present. The "estuary shorelands" boundary is defined as the 100 year flood plain boundary.

<u>Sixes River Estuary</u>:

a) Geographic - Geological Characteristics:

The Sixes River drainage system drains the Edson Butte, Grassy Knob, and Mount Butler area of the coastal mountains of northern Curry County. Headwater areas extend peripherally into Coos County along the easterly county line. This estuary is relatively small with the head of tide extending less than two miles upstream from the river mouth. There is about 18 acres of tideland in the estuary which is predominantly sand and gravel bars.

b) Hydrological Characteristics:

The mouth of the Sixes River is periodically blocked by a sand bar which prohibits water exchange with the ocean during low flow in summer months. Fall flooding opens the estuary mouth and creates estuarine conditions which usually last into late spring. Data are not available on water depths in the Sixes, however maximum depth in the summer probably does not exceed six feet. The average tidal range of the Sixes is approximately five feet (USCG in Percy, 1974).

Water quality in the estuary varies with the physical conditions of the mouth and volume of exchange with the ocean. Water temperatures over 70 degrees F typically accompany low summer flows in the Sixes estuary (Percy, 1974). Streamside logging and related road construction are thought to be the main cause of siltation in this river; these activities also contribute to warm stream flow conditions in the summer.

Salinity measures taken on August 22, 1973, indicate the Sixes is a stratified system upstream of approximately RM 0.2 (Percy, 1974). On this date, a salt wedge extended up to RM 1.4, as evidenced by a salinity range on 1.7 ppt (top) to 26.0 (bottom). Data are not available on areas where water quality restricts estuarine waters from fish and shellfish harvesting or production uses, or from recreational use. Considerable fish loss has been noted in the upper Sixes River system due to a lack of water in the summer (Percy, 1974).

c) Biological Characteristics:

The intertidal areas of the Sixes River Estuary are dominantly sand and gravel flats and bars, which is characteristic of the estuaries of the southern Oregon coast (USFW 1978). No tidal marshes, tidal flats, or subtidal aquatic beds have been reported. Though the head of tide reaches 1.6 miles up the Sixes River, the U.S. Fish and Wildlife Ser-Service classifies the channel as a "riverine" system as far west as the mouth (U.S.FW, 1978). These data suggest that primary production is low in the Sixes as compared to the estuarines of Coos County and the north coast. Phytoplankton and macroalgae production may be the most significant source of organic material. Data are not available on clam and oyster beds of the Sixes Estuary, although a lack of suitable habitat indicates these resources to be minor, if present.

The Sixes River Estuary is a migration route for several adult anadromous salmonid species that spawn in the Sixes River system. These include fall chinook, coho, steelhead, and sea-run cutthroat. According to Percy, et al (1974),

the Sixes River is considered to be one of the most important fall chinook streams on the Oregon Coast.

The Sixes Estuary is also important as a rearing area for salmonids. Salmonid juveniles remain in the lower estuary prior to moving into the ocean. Studies in the Rogue system indicate the survival is higher among juveniles that are reared in the estuary than those that pass directly into the ocean. The formation of a sand fill at the Sixes mouth may enhance estuarine production and rearing habitat for juvenile salmonids (Reimer, 1973).

Wildlife habitat values in the Sixes Estuary are moderate to low in comparison to other Oregon estuaries due to its small area and low number of habitat types. Intertidal areas and beaches of the lower estuary are used by shore birds. Waterfowl use of the Sixes is relatively minor (Percy, 1974). Sea otters penetrate into the estuary (when flows permit) to rest and feed. Use of the estuary by big game and small furbearers is minor. Riparian vegetation is predominately freshwater grasses that are suitable for forage. No riparian forest vegetation that is significant for wildlife or stream shading is present along the estuary margin.

d) Social and Cultural Characteristics:

The principal land uses adjacent to the south side of the Sixes Estuary are state park lands which are part of Cape Blanco State Park. Private grazing lands are adjacent to the estuary on the north side of the river. Maintenance of these grazing lands to their present level of usefulness has and will continue to necessitate erosion prevention and control such as rip-rap. The land uses described above existed prior to the Estuary Classification Administrative Rule of October 7, 1977 (aerial photos dated 9/9/76). The only potential future use requiring alteration of the estuary that can be identified at this time is grazing.

The Patrick Hughes Home which is an 1898 Victorian house is an identified historical site located adjacent to the south side of the estuary in the state park. Other esthetic resources in the vicinity of the Sixes River estuary include Cape Blanco, Gull Rock, Castle Rock and other coastal headlands located to the north and south of the mouth of the river. The principal water-dependent/water-related use of the estuary is sport fishing and hiking.

e) Economic Characteristics:

There are no identified gravel removal sites or other commercial uses identified within the Sixes estuary. The principal economic use is for public recreation that is

concentrated in the Cape Blanco State Park with a day use facility including boat ramp and access road along the north side of the estuary.

f) Estuary Classification and Boundary.

The Sixes River Estuary is classified as a "Natural" estuary for its entire length and area. The estuary boundary is defined as the mean higher high tide elevation and the line of non-aquatic vegetation where such vegetation is present. The "estuary shorelands" boundary is defined as the 100 year flood plain boundary.

Elk River Estuary:

a) Geographic-Geological Characteristics:

The Elk River drainage system drains the north central coastal mountains of Curry County from Iron Mountain and Mount Butler to the coast north and east of Port Orford. The estuary at the mouth of Elk River is small with the head of tide extending only one mile upstream from the river mouth. The tideland area of the estuary is approximately twenty acres and consists of sand and gravel bars near the mouth of the river.

b) Hydrological Characteristics:

The mouth of the Elk River changes in location and is periodically blocked by sand migration. The mouth of the Elk River may migrate several hundred yards and change its position periodically due to the sand bar and coastline characteristics at the mouth. During the summer months the sand bar prevents saline water from entering the estuary except during periods of extremely high tide (Percy, 1974). Aerial photos from 1976 show the Elk's channel running along the sand bar for approximately one mile north of the main channel before meeting the sea (air photos dated 9/9/76). The Elk River Estuary is generally shallow with water depths being about three feet and an average tidal range of five feet (Percy, 1974).

The water quality in the Elk River Estuary is similar to that described for the Sixes River Estuary and is related to the volume of water exchange with the ocean. Water temperatures in the estuary probably exceed 70 degrees F during periods of low river flow in the summer months (Percy, 1974). Salinity measurements taken on August 22, 1973, indicate the Elk River is a well mixed system with very low salinities (0.2 ppt) at this time of year (Percy, 1974). There is no data on water currents in the estuary, however, the low salinities and well mixed nature of the estuary indicate the water flow during most of the year is probably dominated by the fresh water flow from the river. Tidal flow into the estuary from the ocean is probably limited to thoses areas of the estuary immediately adjacent to the mouth of the river.

c) Biological Characteristics:

The intertidal areas of the Elk River Estuary are entirely sand and gravel flats and bars (USFW, 1978). No tidal marshes, mud flats, or subtidal aquatic beds have been reported. The U.S. Fish and Wildlife Service has classified the channel as a "riverine" system as far west as the mouth (USFW, 1978). Primary productivity in the Elk River Estuary is low and similar to the other minor estuaries in Curry County.

The Elk River Estuary is a migration route for several salmonid species that spawn in the Elk River system. These species include fall chinook, coho, steelhead, and sea-run cutthroat. It is reasonable to assume the entire estuary serves as rearing area for juvenile salmonids.

Wildlife habitat values in the Elk River Estuary are similar to those described for the Sixes River Estuary due to the close proximity of the two rivers. Riparian vegetation is predominantly freshwater grasses that are suitable for forage. Trees border the river in several places. They provide habitat for numerous perching birds.

d) Social and Cultural Characteristics:

The principal land uses adjacent to the Elk River Estuary are agricultural in nature with extensive grazing lands being immediately adjacent to the north and south side of the estuary for its entire length. Minor gravel extraction occurs from river bars upstream from the head of tide but there are no gravel removal operations within the estuary itself.

The grazing lands adjacent to the estuary have heen eroded by the river and periodically require streambank protection in order to prevent the loss of valuable farm land. The streambank protection structures that existed on October 7, 1977, have been documented from air photos dated 9/9/76. Permits issued for physical alterations of the shoreline include the following:

TABLE 16.5.B

Permit No.	Mile	Type of Work	Issued
A-002294	0.1	Rip Rap	13 Aug. '76
A-002273	0.1	Rip Rap	13 Aug. '76
A-002274	0.1	Rip Rap	13 Aug. '76
A-002279	0.1	Rip Rap	13 Aug. '76
A-003246	0.6	Bank Protection	19 Oct. '76
A-003452	0.7	Fill	11 June '80

Source: Army Corps of Engineers, personal communication.

There are no identified historic or archeological sites identified in the Elk River Estuary. The only esthetic resources are the open space areas created by the grazing land pastures and the ocean beaches. The principal water dependent/water related use of the estuary is sport fishing and other outdoor recreational use such as hiking and swimming.

e) Economic Characteristics:

There are no identified gravel removal or other commercial uses identified in the Elk River Estuary. The principal economic use of the estuarine area is for public recreation especially sport fishing using access across private lands.

Estuary Classification and Boundary:

The Elk River Estuary is classified as a "Natural" estuary for its entire length and area. The estuary boundary is defined as the mean higher high tide elevation and the line of non-aquatic vegetation where such vegetation is present. The "estuary shorelands" boundary is defined as the 100 year floodplain boundary.

Euchre Creek Estuary:

a) Geographic-Geological Characteristics:

The Euchre Creek-Cedar Creek drainage system is a small coastal stream that drains an area immediately north of the Rogue River and west of Lobster Creek in central Curry County. This estuary is the smallest of the minor estuaries located in Curry County with the head estimated to be less than one-third mile from the mouth of the creek. Most of the estuary consists of a shallow sandy channel along the inland side of the coastal dunes.

b) Hydrological Characteristics:

The mouth of Euchre Creek periodically changes its location and is often blocked by sand migration along the beach. Normally the mouth of Euchre Creek is located at the northerly end of the barrier beach but the creek can widen or move its outlet to the south during periods of high flow. During periods of low flow the mouth of the creek is blocked with sand so that there is essentially no water exchange with the ocean. The Euchre Creek Estuary is very shallow with water depths probably not exceeding five feet. The average tidal range is not known for this estuary.

Water quality in Euchre Creek Estuary is not known from actual measurements but is probably similar to other minor estuaries in the county. During the summer months

when there is low stream flow water temperatures are probably excessively high. There is no data available for salinity and water currents in the estuary.

c) Biological Characteristics:

The intertidal areas of the Euchre Creek Estuary are sand and gravel bars located near the mouth of the creek. There are no tidal marshes, mud flats, or subtidal aquatic beds present in this estuary. The primary productivity is low.

Several salmonid species spawn in the Euchre Creek-Cedar Creek system. The fall chinook and coho are present in the estuary and there is an effort to improve the upstream spawning areas of these species and increase their numbers. It is reasonable to presume that this estuary provides a transition area for the juvenile salmonids.

The wildlife habitat value of this estuary is limited due to its small size and lack of riparian vegetation. The shallow intertidal area between the coastal dunes and the highway provides a small resting and feeding area for water fowl and shorebirds. Most of the estuary shoreline is devoid of vegetation, however, freshwater grasses are found along the easterly boundary which are utilized for pasture.

d) Social and Cultural Characteristics:

The principal land use adjacent to the Euchre Creek Estuary is farming with the lands to the north and east being pasture for cattle. A coastal dune field lies to the west and south. The land uses described above existed prior to the Estuary Classification Rule of October 7, 1977, and bank protection has been used to stabilize some of this pasture land (Aerial photos dated 9/9/76). The only potential future use requiring alteration of the estuary is the protection of the existing pasture land from future erosion.

There are no identified historic or archeological sites identified in the Euchre Creek Estuary. The only esthetic resources in the area are the open space areas created by the grazing land pastures and the ocean beach. The principal water dependent/water related use associated with the estuary is sport fishing.

e) Economic Characteristics:

There are no identified gravel removal or other commercial uses identified in the Euchre Creek Estuary. The principal economic use of the estuary is for public recreation for sport fishing.

f) Estuary Classification and Boundary

The Euchre Creek Estuary is classified as a "Natural" estuary for its entire length and area. The "estuary boundary" is defined as mean higher high tide elevation and the line of non-aquatic vegetation where such vegetation is present. This estuary is divided by U.S. 101 which is constructed on an elevated earthern dike with the easterly portion of the estuarine area being connected to the main part by a large culvert under the dike. The "estuary shorelands boundary" is defined as the 100 year flood plain boundary.

Hunter Creek Estuary:

a) Georgraphic-Geological Characteristics:

The Hunter Creek drainage system drains the coastal mountains between the Rogue River and Pistol River. The head of tide for this estuary is located about 1.25 miles upstream from the mouth of the stream.
The estuary has essentially no tideland with most of the area of the estuary being stream channel with small sand and gravel bars near the mouth of the river. The tidal estuarine area is about fifty acres.

b) Hydrological Characteristics:

The mouth of Hunter Creek Estuary is essentially fixed in position by the presence of the U.S.Highway 101 bridge and several large rocks on the beach. The mouth, however, does seasonally close due to sand migration at the beach. During this time the water exchange with the ocean is prevented except during extreme high tides. The Hunter Creek Estuary is shallow for its full length with water depths being generally less than five feet.

The water quality of Hunter Creek Estuary is similar to that described for Euchre Creek and the other small estuaries in the county. Water quality is generally related to the volume of water exchanged with the ocean and stream flow. During the low summer flows when the mouth of the estuary is blocked with sand; the estuary is stagnant and water quality is poor.

c) Biological Characteristics:

The limited intertidal areas of the Hunter Creek Estuary are the sand and gravel bars found near the mouth. No tidal marshes, mud flats, or subtidal aquatic beds have been identified (USFW, 1978). Small areas of freshwater vegetation are found on the north side of the estuary and freshwater grass lies along the easterly boundary of the estuary. Riparian vegetation is found in narrow strips in various

parts of the estuary; however, no continuous riparian forest areas are present.

Salmonid species which use the estuary as a migration route to upstream spawning areas include fall chinook salmon, sea-run cutthroat and winter steelhead (OSCG, 1967).

d) Social and Cultural Characteristics:

The Hunter Creek Estuary is located within the city of Gold Beach urban growth boundary so that there are residential, commercial and industrial uses established along the estuarine shoreline. Much of the land adjacent to the southern boundary of the estuary is presently developed in a variety of uses. Lands on the north and east side of the estuary are vacant and are in public ownership or used agriculturally for pasture land.

Lands adjacent to the Hunter Creek Estuary are subject to streambank erosion and have been protected by erosion protection devices (piling, rip rap, etc.). The streambank protection structure that existed on October 7, 1977, have been documented from air photos dated 9/9/76. All existing commercial and industrial uses located adjacent to the estuary are non-water related or non-water dependent. The only identified water dependent use in the Hunter Creek Estuary is sport fishing from public access points near the mouth of the estuary. There are no identified historic or archeological sites identified in the Hunter Creek Estuary.

e) Economic Characteristics:

All gravel removal sites identified on Hunter Creek are located above the head of tide and all commercial/industrial uses adjacent to the estuary are not water dependent or water related. The principal water dependent economic use of the estuary is for public recreation, especially sport fishing.

f) Estuary Classification and Boundary:

The Hunter Creek estuary is classified as a "Natural" estuary for its entire length and area. The "estuary boundary" is defined as mean higher high tide elevation and the line of non-aquatic vegetation where such vegetation is present. The "estuary shorelands boundary is defined as the 100 year flood plain boundary.

Pistol River Estuary:

a) Geographic-Geological Characteristics:

Pistol River drains the westerly slope of the coastal mountains from Hunter Creek to the Chetco River. The head of tide for the Pistol River Estuary is located about 1.0 mile upstream from the mouth of the river. The estuary has a total area of 59 acres of which 25 acres is tideland and 34 acres are river channel. The predominant substrate of the estuary is sand and gravel which is found on the intertidal bars.

b) Hydrological Characteristics:

The mouth of Pistol River is located at the northerly end of a coastal dune field and is periodically blocked with sand from the migration of sand on the ocean beach. During the periods of sand blockage water exchange between the estuary and ocean is restricted and the river becomes non-estuarine. The depth of the Pistol River Estuary is generally less than 8 feet with the deepest areas being in the main channel. The average tidal range at Pistol River is five feet (Percy, 1974).

The water quality of the Pistol River is probably very similar to other small estuaries in Curry County. Based on information from the Sixes River and sampling in the upper basin, water temperatures probably exceed 70 degrees F during low summer flows. Salinity measurements taken on August 22, 1973, indicate the Pistol River is a well-mixed system with very low salinities (0.2 ppt) (Percy, 1974).

c) Biological Characteristics:

The intertidal areas of the Pistol River Estuary are beach bars (USFW, 1978). No tidal marshes, mud flats, or aquatic beds have been reported. The lands east of U.S. Highway 101 are predominantly pasture lands. The lack of tidal marshes and aquatic beds indicate that primary production is probably low in the Pistol River. At present there are no known oyster or clam beds present in this estuary.

Riparian vegetation adjacent to the Pistol River Estuary is predominantly freshwater grass that is suitable for forage, dune grasses, and shrubs. No riparian forest vegetation that is significant for wildlife or stream shading is present.

The Pistol River Estuary is a migration route for several adult anadromous salmonids that spawn in the Pistol River system. These include fall chinook, steelhead, and

sea-run cutthroat. The numbers of coho are fairly small as compared to the other species listed above (Percy, 1974). Data are not available on important fish habitat within the estuary. It is reasonable to assume that the entire estuary serves as a rearing area for juvenile salmonids.

Habitat values in the Pistol River Estuary are low as compared to other Oregon estuaries due to its small area and relatively low number of habitat types. The intertidal areas and beaches are used by shore birds. Waterfowl use of the estuary is minor. Use of the estuary by big game and small furbearers is minor.

d) Social and Cultural Characteristics:

Land uses adjacent to the Pistol River Estuary include private grazing lands and publically owned beach and dune areas. East of the shoreland boundary is found the small community of Pistol River. A small state park is located south of the river between the U.S. 101 and the ocean beaches. These land uses existed prior to the Estuary Classification Administrative Rule of October 7, 1977, (Aerial photos are dated 9/9/76).

The following historic and archeological sites have been identified within or adjacent to the Pistol River Estuary: 1) the lower estuary was the site of the Battle of Pistol River in 1856 (Oregon State Historic Preservation Office, 1976); 2) Chet-less-un-tum or Chett-e-chin Midden, located in "Pistol River vicinity" (Oregon State Historic Preservation Office, 1976). Other esthetic resources in the vicinity of Pistol River Estuary include the Pistol River dune field and Crook Point which is an identified coastal headland.

The predominant use of the estuary is for recreational use for sportfishing and beach access. The principal access point is a public boat ramp located in the state park at river mile 0.4. Potential alterations to the estuary could result from improvements and or maintenance to the highway, improvements to the state park, or erosion control structure along the estuary shoreline to protect the adjacent grazing lands.

e) Economic Characteristics:

There are no identified commercial gravel removal sites identified within the Pistol River Estuary and all adjacent uses are agricultural or for public recreation. The principal economic use of the estuary which is water dependent is for sport fishing.

f) Estuary Classification and Boundary:

The Pistol River Estuary is classified as a "Natural" estuary for its entire length and area. The "estuary boundary" is defined as mean high higher high tide elevation and the line of non-aquatic vegetation where such vegetation is present. The "estuary shorelands boundary" is defiend as the 100 year flood plain boundary.

Winchuck River Estuary

a) Geographic-Geological Characteristics:

The Winchuck River drains the westerly slope of the coastal mountains south of the Chetco River to the California state line. The Winchuck River Estuary is one of the smallest minor estuaries in Curry County with the head of tide being less that one mile from the river mouth. This estuary is only 31 acres in total area of which three acres is tidelands. The substrate of the estuary is sand and gravel.

b) Hydrological Characteristics:

Hydrological data for the Winchuck River Estuary is very limited, however, the estuary is essentially identical to the other minor estuaries in Curry County. The mouth of the river is at times blocked by sand movement at the beach during periods of low river flow. At these times the water quality in the estuary is poor due to the lack of circulation with the ocean water. Water depth in the estuary is generally less than five feet.

c) Biological Characteristics:

Wetlands vegetation in the Winchuck River Estuary is extremely minor. No subtidal aquatic beds or tidal flats or marsh have been reported (USFW, 1978). The diked shorelands near the head of tide are made of freshwater wetland grasses. Primary productivity is probably low in the Winchuck River.

The Winchuck River Estuary is a migration route for several adult salmonids including spring chinook, fall chinook, coho, steelhead, and sea-run cutthroat. The streams in the upper basin are known for the excellent spawning gravel (Percy, 1974). Data are not available on important fish habitat within the estuary. It is reasonable to assume that the estuary serves as a rearing area for juvenile salmonids.

d) Social and Cultural Characteristics

Land uses adjacent to the Winchuck River Estuary include a mixture of residential, commercial, and public recreation.

Developed residential sites are found on both the north and south sides of the Winchuck River Estuary. The undeveloped Winchuck State Wayside is located on the north side of the estuary at the mouth of the river. There are no identified archeological or historical sites within the estuary.

The predominant use of the estuary is for public recreation in the form of sport fishing.

e) Economic Characteristics

The principal use of the Winchuck River Estuary which contributes to the economy of Curry County is for recreation especially for sport fishing.

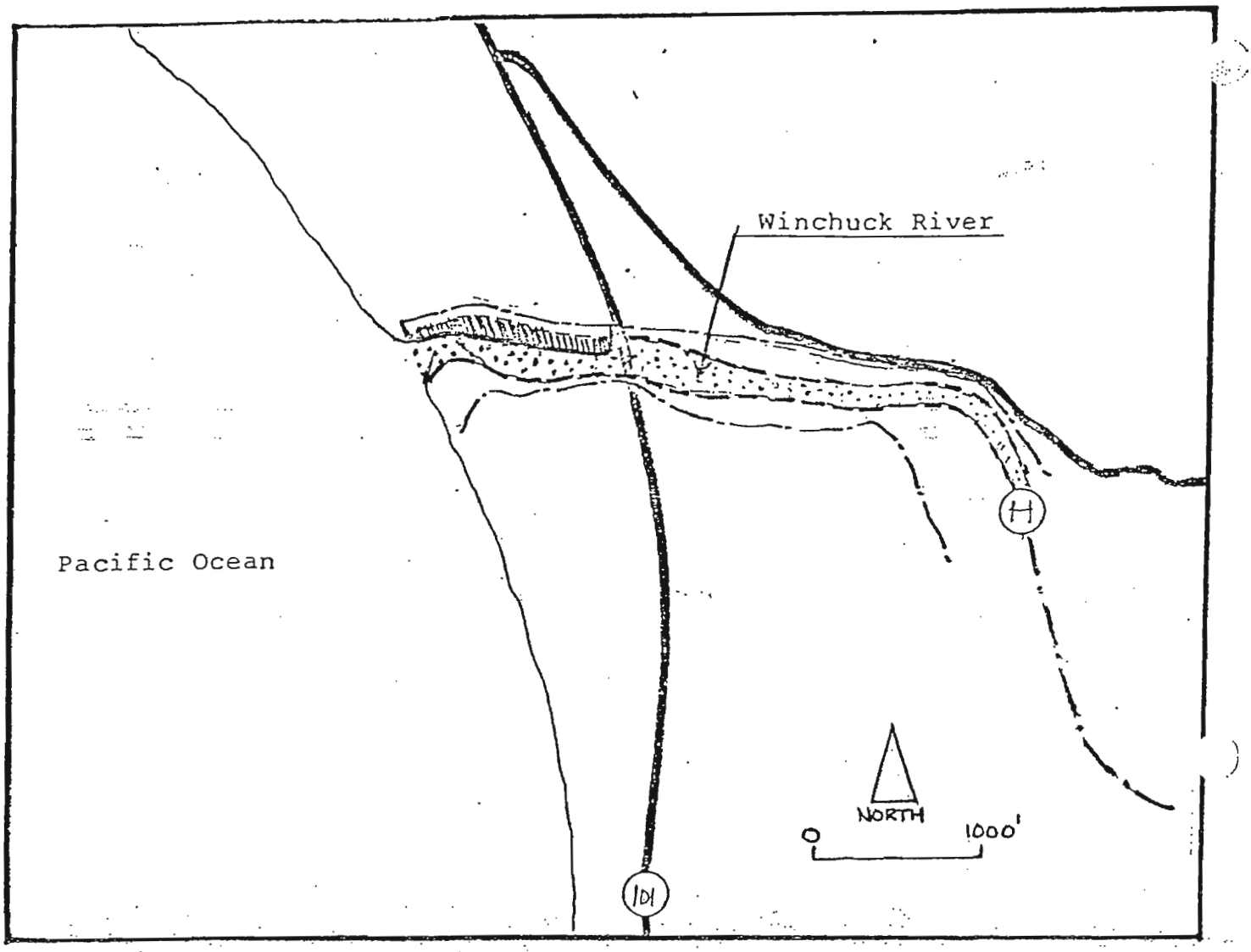
f) Estuary Classification and Boundary.

The Winchuck River Estuary is classified as a "Conservation estuary with a "Natural" management unit being designated near the mouth of the estuary (See Figure 16.5.A) The "estuary boundary" is defined as the mean higher high tide elevation and the line of non-aquatic vegetation where such vegetation is present. The "estuary shorelands boundary" is defined as the 100 year floodplain boundary.

16.5.3 Minor Estuary Plan

Plan Designation:

All minor estuaries with the exception of the Winchuck River, inventoried in the Comprehensive Plan have been designated as being natural management units in accordance with the Oregon Estuary Classification Rule. These estuaries are located in the rural shoreland areas of Curry County and are essentially undeveloped with regard to the estuarine area. The predominant land use in the shoreland area is for agriculture, especially grazing, use. Other adjacent uses include forestry, residential, and low-intensity commercial development. The predominant use within the estuarine boundary is low intensity water-dependent recreation (fishing and drift boating). Due to the size, location, existing uses adjacent and within the estuarine boundary, these estuaries are all classified as being "Natural" estuaries. The Winchuck River estuary is designated as a "Conservation" estuary by the Oregon Estuary Classification Rule. Curry County has designated a natural management unit for the intertidal area along the north shore of the estuary near the mouth of the river.



WINCHUCK RIVER ESTUARY

PLAN MAP

Management Unit Designations:

Natural (Zoning ER-1)

Conservation (Zoning ER-2)

Figure 16.5 A

6.6 ESTUARY MANAGEMENT DESIGNATIONS

16.6.1 Natural Management Designations

Natural estuarine designations are managed to preserve the natural resources in recognition of the dynamic natural, geological and biological processes. Natural areas may include tidal marshes, mud-sand flats, seagrass and algae beds that because of factors such as size, biological productivity and habitat value, which plan a vital role in the functioning of the estuarine ecosystem. Natural areas are designated to assure protection of significant fish and wildlife habitats of continued biological productivity and of scientific, research and educational needs. The following uses and activities are allowed within Natural estuarine designations:

- low intensity water dependent recreation
- research and educational observation
- navigational aides such as Beacons and Buoys
- passive restoration
    - "and where consistent"
- aquaculture
- Communication facilities
- active restoration activities
- low water bridges.
- maintenance and protection of existing man-made features
- rip rap limited to the protection of uses existing as of October 7, 1977 (see policy number 4).

16.6.2 Conservation Management Designation

Conservation estuarine designations are managed for low to moderate intensities of uses and activities with emphasis on maintaining the integrity and continuity of aquatic resources and recreational benefits. Conservation areas are designated for long-term uses or renewable resources that do not require major alteration of the estuary, except for purposes of restoration. Conservation areas include oyster and clam beds and fish and wildlife habitat smaller or of less biological significance than natural designations. Conservation areas also include partially altered areas adjacent to existing development of moderate intensity.

The following uses and activities are allowed within Conservation estuarine designations:

- uses allowed in "Natural" designations.
- active restoration measures
- aquaculture facilities
- communication facilities
    - "and where consistent with resource compatibilities of the areas and the purposes of maintaining conservation management designations"
- high intensity water-dependent recreation
- maintenance dredging of existing facilities
- minor navigational improvements
- mining, aggregate rock and mineral extraction.
- water-dependent uses requiring occupation of water surface area by means other than fill
- bridge crossings
- dredged marinas and boat basins without jetties using natural channels
- waste discharge meeting state and federal water quality standards

Shallow Draft Development areas are managed for navigation and other water-dependent uses, consistent with the need to minimize damage to the estuarine system. Shallow Draft Development areas include: areas suitable for shallow draft navigation, including shipping and access channels or turning basins; in water dredged material disposal and area adjacent to developed or developable shorelines which may need to be altered to provide navigational access or create new land areas for water-depentent uses.

The following uses and activities are allowed within Shallow Draft Development designations:

- navigation

- water-dependent commercial

- water-dependent industrial

  - "and where consistent with resource capabilities of the areas and the purposes of this management designation"
- uses allowed in "Natural" and "Conservation" designations.
- water-related and non-dependent, non-related uses not requiring fill

- mining, aggregate rock and mineral extraction.

Further analysis is required to establish the need for and appropriateness of the following items - specific to development designations:

- navigation and water-dependent commercial enterprises and activities

- water transport channels where dredging may be necessary

- disposal of dredged material

- water storage areas where needed for products used in or resulting from industry, commerce, and recreation

- marinas

- aquaculture

- extraction of aggregate resources

- potential mitigation/restoration sites

- high intensity water-dependent recreation

- maintenance dredging of existing facilities

- minor navigational improvements

- mining aggregate rock and mineral extraction.

- water-dependent uses requiring occupation of water surface area by means other than fill

- bridge crossings

- dredged marinas and boat basins without jetties or channels (use natural channels)

- waste discharge meeting state and federal water quality standards.

16.7 ESTUARY PLAN IMPLEMENTATIÓN

16.7.1 Relationship of Plan Designations to Zoning.

The "Estuary Resources" management unit designations are the comprehensive plan designations within the estuarine boundary of all estuarine areas identified in the Curry County Comprehensive Plan. The Comprehensive Plan describes three types of management unit designations for the Rogue, Chetco and Winchuck estuaries and classifies the remaining minor estuaries as natural management units. These management unit designations are to be implemented by the Estuary Resources (ER) Zone which has outright and conditional uses identified for each of the management unit designations. Conditional uses listed in the ER Zone have specific development and review standards which further define the manner and extent to which the use can be allowed in the estuary.

Shoreland areas adjacent to the estuary which are "especially suited for water dependent use" (ESWD) are designated "Marine Activity" (MA) because of their unique relationship to the marine shoreline. This plan designation is implemented with the Marine Activity (MA) zone of the Curry County Zoning Ordinance. The MA zone lists outright and conditional uses which are appropriate for water dependent use of the shoreland. Other shoreland areas within the coastal shorelands boundary are designated by other comprehensive plan designations which are appropriate to the uses of the lands as identified in the comprehensive plan. These plan designations are implemented with various land use zones as specified in the plan; however, lands within the coastal shoreland boundary are also subject to the land use requirements of the Shoreland Overlay (SO) Zone which specifies additional land use requirements for lands adjacent to the ocean and estuary shorelines.

16.8 COUNTYWIDE ESTUARINE RESOURCES GOALS AND POLICIES

Curry County recognizes the unique environmental, economic and social values of the county's estuaries and associated wetlands. Therefore as part of its comprehensive plan Curry County adopts the following policies with regard to estuarine resources.

A. For estuaries:

1. Curry County recognizes the overall Oregon Estuary Classification for the county's estuaries.

2. Curry County will protect the estuarine ecosystem, including:

   a) its natural biological productivity

   b) unique features

   c) water quality.

3. Curry County will allow dredging, fill, or other reduction or degradation of the above mentioned natural values only:

   a) if required for navigation or other water-dependent uses that require an estuarine location; and

   b) if a public need is demonstrated; and

   c) if no alternative upland locations exist; and

   d) if adverse impacts are minimized as much as feasible.

4. Curry County will allow rip-rap in Natural estuarine designations to a very limited extent where necessary for erosian control to protect:

   a) uses existing as of October 7, 1977; and

   b) unique natural resource and historical and archeological values;

   c) public facilities; and

   d) where consistent with the natural management unit description of the Curry County Comprehensive Plan and other conditions in the ordinance relating to non-structural solution and minimizing adverse impacts.

5. Curry County will identify and assess sites for restoration on a case by case basis through the state and federal permit process. Appropriate sites may include areas of:

   a) heavy erosion or sedimentation

   b) degraded fish and wildlife habitat

   c) anadromous fish spawning or rearing areas

   d) abandoned diked estuarine marsh areas; and

   e) areas where water quality restricts tie use of estuarine waters for fish and shellfish harvest and production, or for human recreation

6. Curry County will allow estuarine dredge or fill actions as estuarine restoration, pursuant to Policy 5. only upon findings which demonstrate the following:

   1) A factual assessment of the nature and extent of the estuarine resource believed to have existed at the proposed restoration site at some time in the past.

   2) A factual assessment of how the estuarine resource at the site was lost, and

   3) A comparison of the resource enhancement expected to result from the proposed restoration project together with a determination that the proposed project will, in fact probably restore all or some of the resource value lost at the site.

7. Curry County will identify and assess sites to mitigate the effects of dredge or fill actions in intertidal or tidal marsh areas by creation, restoration or enhancement to fulfill the requirements of ORS 541.626 (2), except where a waiver is permitted under ORS 541.625 (4).

8. Curry county will restrict the proliferation of individual single-purpose docks and piers by encouraging community facilities common to several uses and interests by considering alternatives such as mooring buoys, dryland storage and launching ramps, and by limiting the size and shape of a dock or pier to that required for the intended use.

9. Curry County will consider establishing minimum freshwater flow rates and stnadards so that resources and uses of the estuary will be maintained. They include:

   a) navigation

   b) fish and wildlife characteristics; and

   c) recreation.

10. Curry County will recognize the following authorities in managing lands rather than developing new or duplicating management technique or controls to maintain water quality and minimize man-induced sedimentation in the county's estuaries:

    a) Forest Practices Act;

b) Programs of the Soil Conservation Service;

c) Department of Environmental Quality Water Quality Programs

d) Division of State Lands Fill and Removal Program.

11. Curry County will analyze impacts of proposed alterations which would potentially alter the integrity of the estuarine ecosystem. A demonstration of the public need and gain from such modification or loss is required.

12. Curry County will consider the potential for using upland sites to reduce or limit the commitment of the estuarine surface area for surface uses.

13. Curry County will consider and describe the cummulative effect of all uses, activities and alterations during plan development and adoption.

B. For estuarine shorelands:

1. Curry County will maintain the diverse environmental, economic and social values of the county's estuary shorelands.

2. Curry County will minimize man-induced sedimentation in the estuaries.

3. Curry County will reduce the hazards to human life and property from the use and enjoyment of the estuarine shorelands.

4. Curry County will reduce the adverse effects upon water quality and fish and wildlife habitat resulting from the use and enjoyment of the county's estuary shorelands.

5. Curry County will ensure compatibility with the characteristics of adjacent coastal waters.

6. Curry County will consider the relationships between estuarine shorelands and:

a) resource of coastal waters;

b) associated geologic and hydrologic hazards.

Such considerations will be included in:

a) comprehensive plan changes and revisions,

b) implementing actions, and

c) permit reviews.

7. Curry County will manage floodplain areas consistent with the hazards to life and property.

8. Curry County will fullfill the mitigation requirement of Oregon law by protecting identified mitigation sites from preemptory uses.

9. Curry County will fullfill the dredge material disposal plan to protect identified shoreland areas from new uses which would prevent their ultimate use for dredged material deiposal.

10. Curry County will encourage the disposal of dredged material in uplands or ocean waters, and to permit in-water disposal only where consistent with the Estuarine Resources Goal and state and federal law. The disposal of dredged material in intertidal areas is prohibited unless part of an approved fill project.

11. Curry County will maintain riparian vegetation especially important to:

    a) water quality;

    b) fish and wildlife habitat;

    c) recreational use; and

    d) aesthetic resource.

12. Curry County will provide first priority for non-structural solutions to problems of erosion and flooding.

13. Curry County will protect

    Major marshes (non-tidal)
    Significant Wildlife Habitat;
    Coastal Headlands;
    Exceptional Aesthetic Resources; and
    Historic and Archaeological Sites.

14. Curry County will protect shorelands in urban and urbanizable areas especially suited for:

    a) water-dependent recreation uses;

    b) water-dependent commercial uses;

    c) water-dependent industrial uses.

    Some factors which contribute to this special suitability are:

    a) deep water close to shore with supporting land transport facilities suitable for ship and barge facilities;

    b) potential for aquaculture:

    c) protected areas subject to scour which would require little dredging for use as marinas; and

    d) potential for recreational utilization of coastal water or riparian resources.

15. Curry County will protect shorelands in rural areas as appropriate for

    a) farm uses as provided in ORS Chapter 215.

    b) propagation and harvesting of forest products consistent with the Oregon Forest Practices Act.

    c) private and public water-dependent recreational development.

    d) aquaculture;

    e) water-dependent commercial and industrial uses and water-related uses only upon a finding by the governing body of the county that such uses satisfy a need which cannot be accommodated on shorelands in urban and urbanizable areas:

    f) subdivisions, major and minor partitions and other uese only upon a finding by the governing body of the county that such uses satisfy a need which cannot be at other upland locations or in urban or urbanizable areas and are compatible with the objectives of this goal to protect riparian vegetation and wildlife habitat; and

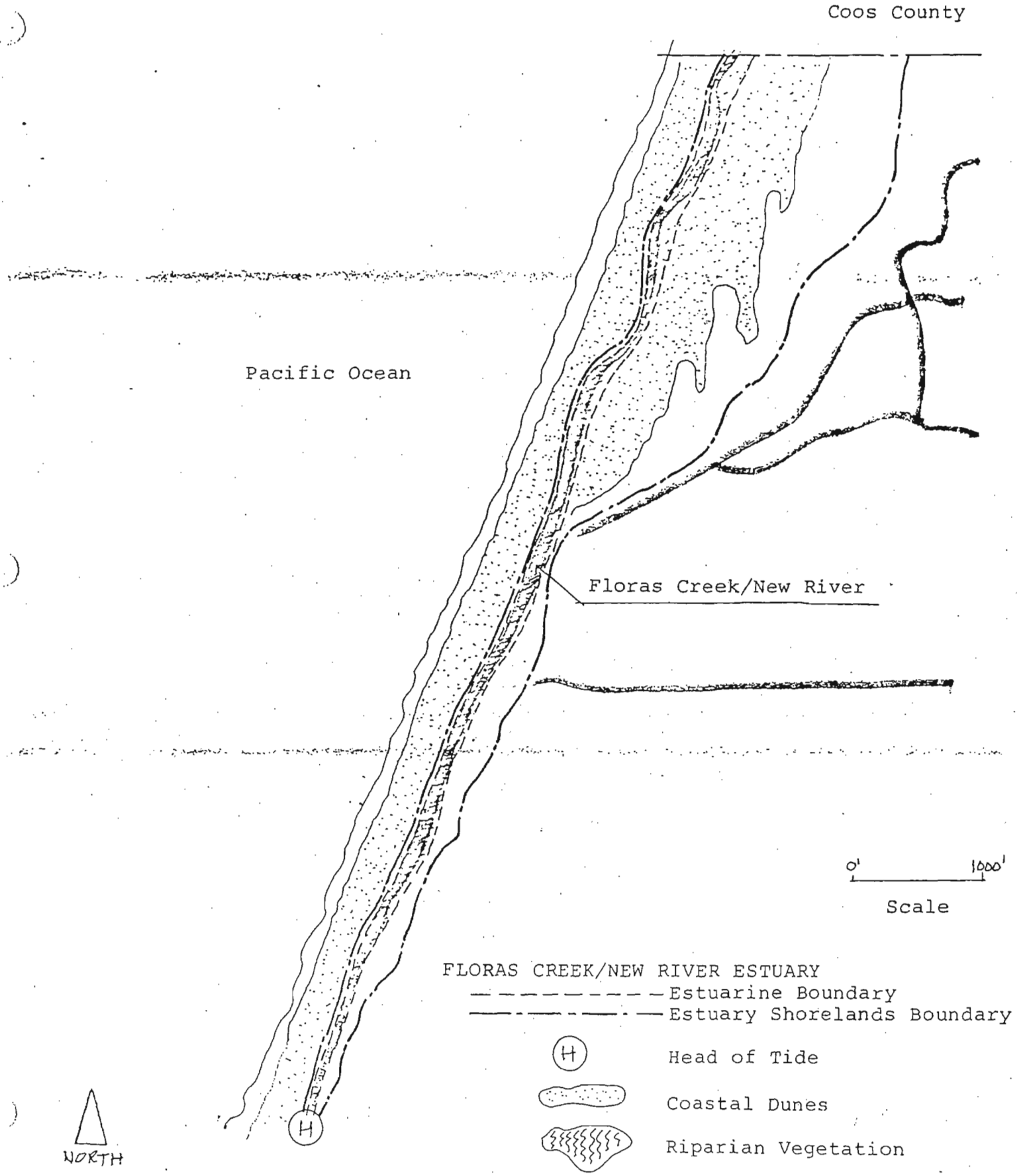
g) a single family residence on existing lots, parcels or units of land when compatible with the objectives and implementation standards of the Shoreland Overlay (SO) Zone.

16 Curry County will encourage the collection of new data regarding the economic, social, and environmental characteristics of county estuaries since the present data base is very poor making it very difficult to arrive at meaningful planning decisions.

17. Curry County will revise the estuary plan upon receipt of new and sufficient data regarding estuarine areas which in its estimation provide a basis for changing the present plan designations.

APPENDIX 16-I

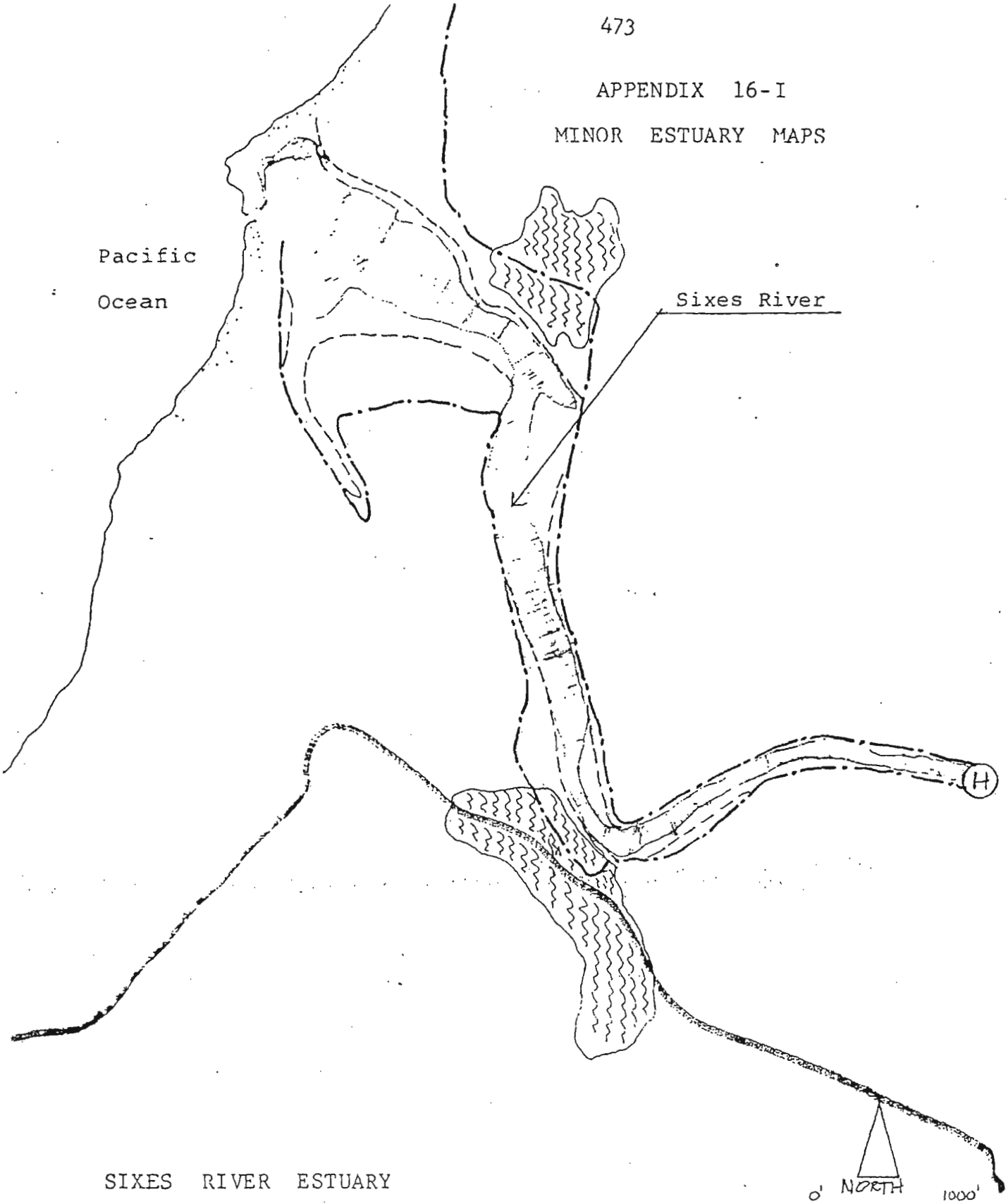
MINOR ESTUARY MAPS



Estuary Classification: Natural

APPENDIX 16-I

MINOR ESTUARY MAPS



SIXES RIVER ESTUARY

Estuarine Boundary

Estuary Shorelands Boundary

Scale

H Head of Tide

Coastal Dunes

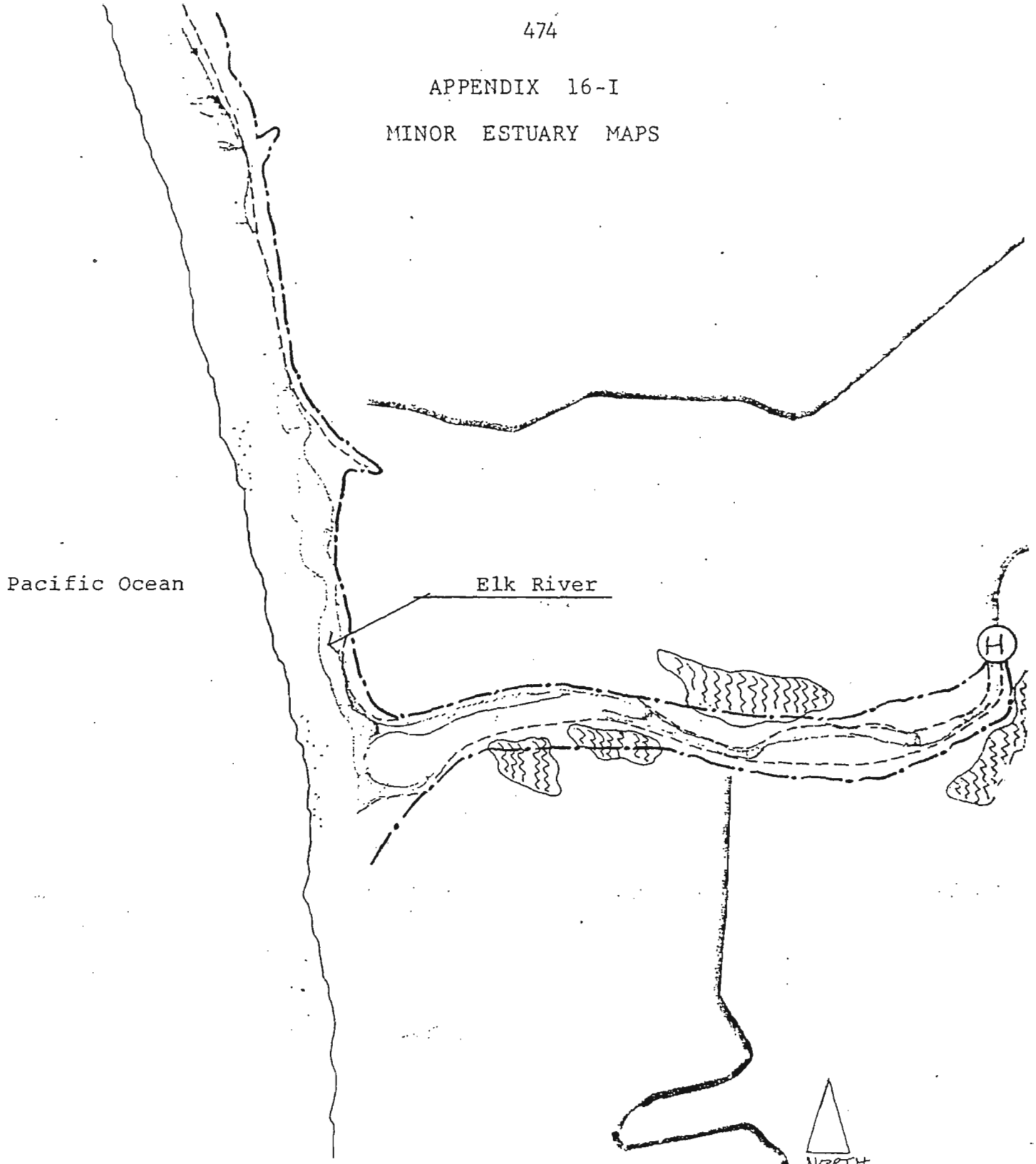
Riparian Vegetation

Estuary Classification: Natural

Zoning District: ER-1

APPENDIX 16-I

MINOR ESTUARY MAPS



ELK RIVER ESTUARY

- - - - - - - - Estuarine Boundary

—·—·—·— Estuary Shorelands Boundary

(H) Head of Tide

Coastal Dunes

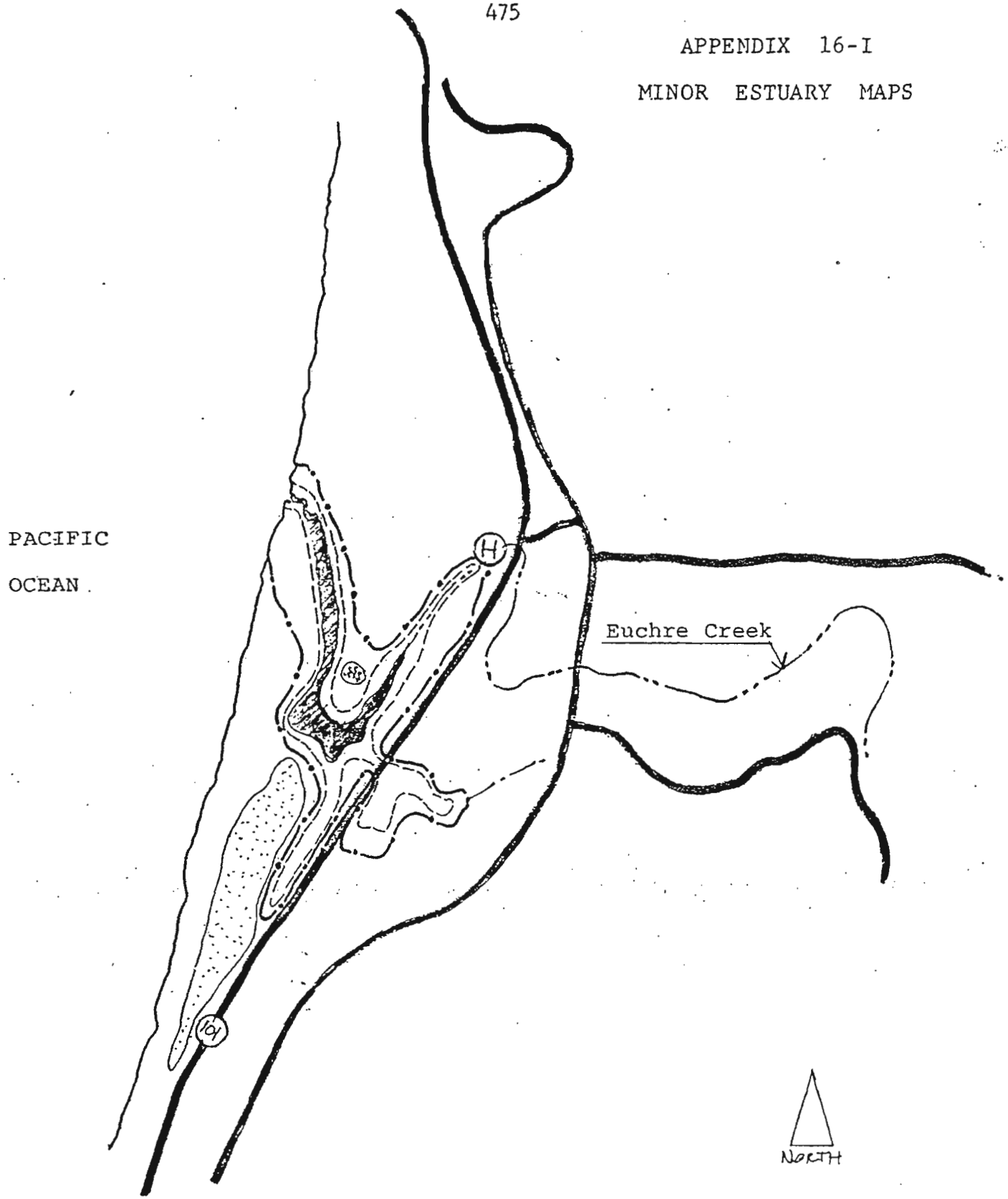
Riparian Vegetation

Estuary Classification: Natural

Zoning District: ER-1

APPENDIX 16-I

MINOR ESTUARY MAPS



EUCHRE CREEK ESTUARY

- - - - - - - - - - Estuarine Boundary

—·—·—·—·— Estuary Shorelands Boundary

(H) Head of Tide

Coastal Dunes

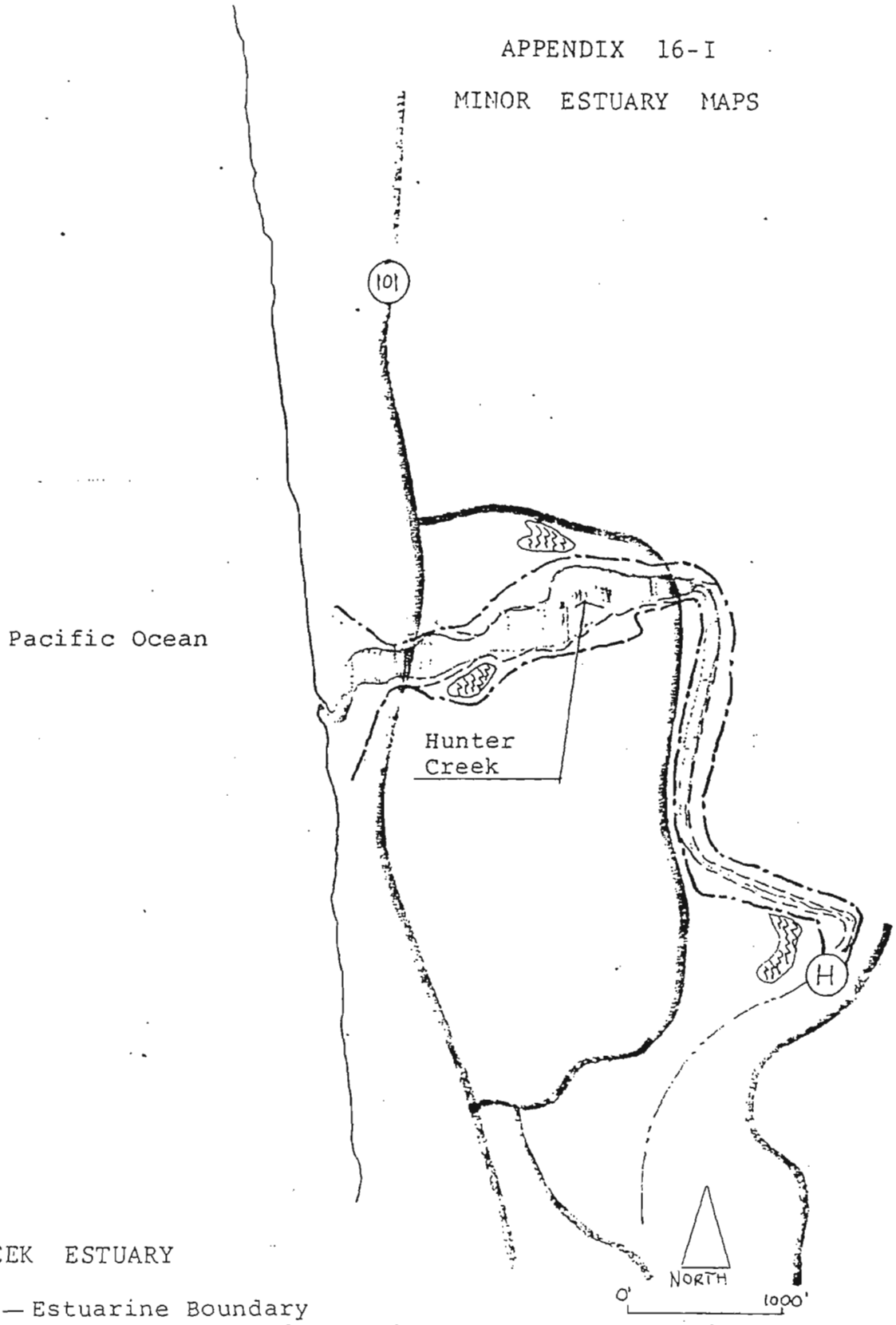
Riparian Vegetation

Estuary Classification: Natural

Zoning District: ER-1

APPENDIX 16-I

MINOR ESTUARY MAPS



HUNTER CREEK ESTUARY

Estuarine Boundary

Estuary Shorelands Boundary

H Head of Tide

Coastal Dunes

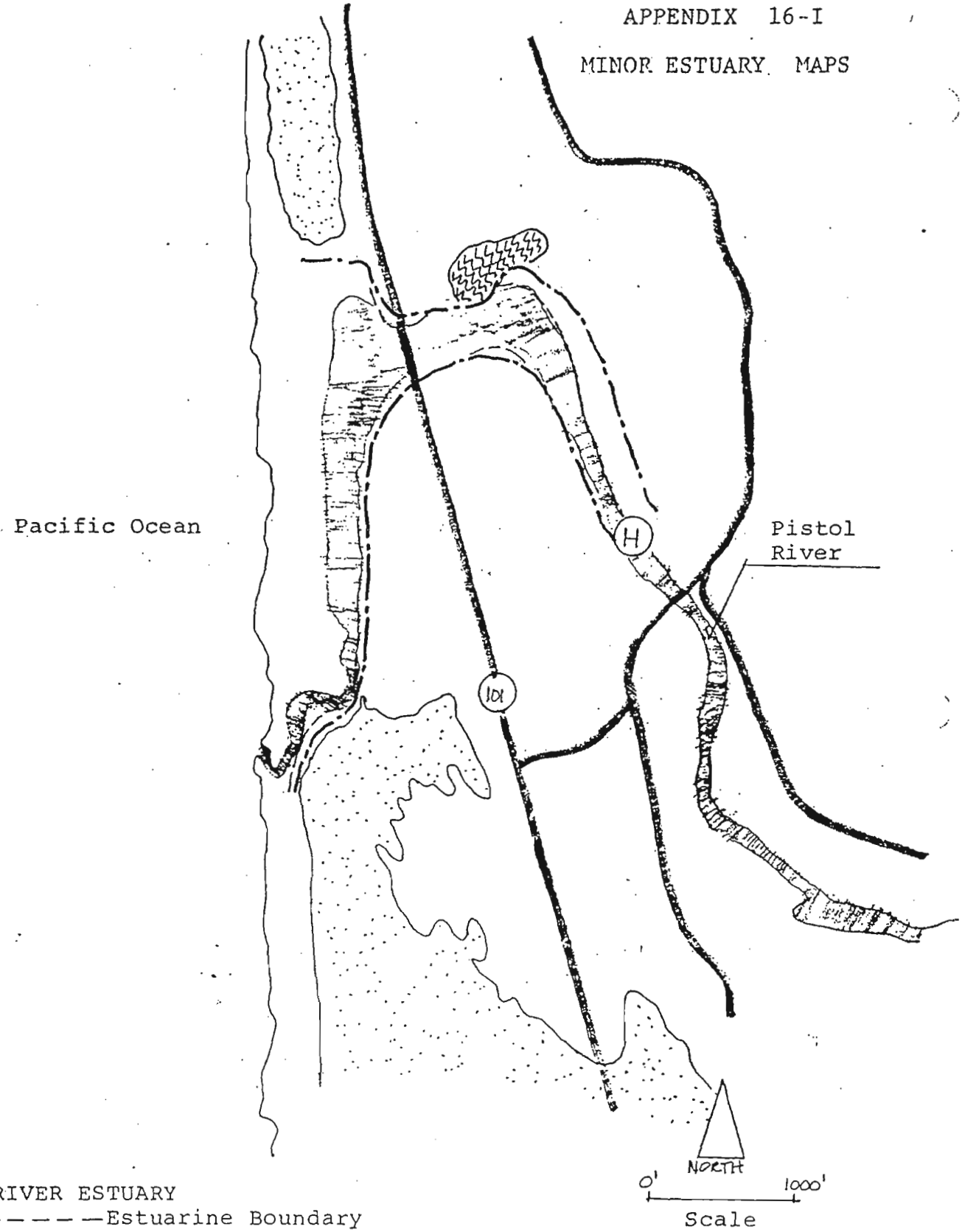
Riparian Vegetation

Estuary Classification: Natural

Zoning District: ER-1

APPENDIX 16-I

MINOR ESTUARY MAPS



PISTOL RIVER ESTUARY

- - - - - - - - - - Estuarine Boundary

—·——·——·— Estuary Shorelands Boundary

(H) Head of Tide

Coastal Dunes

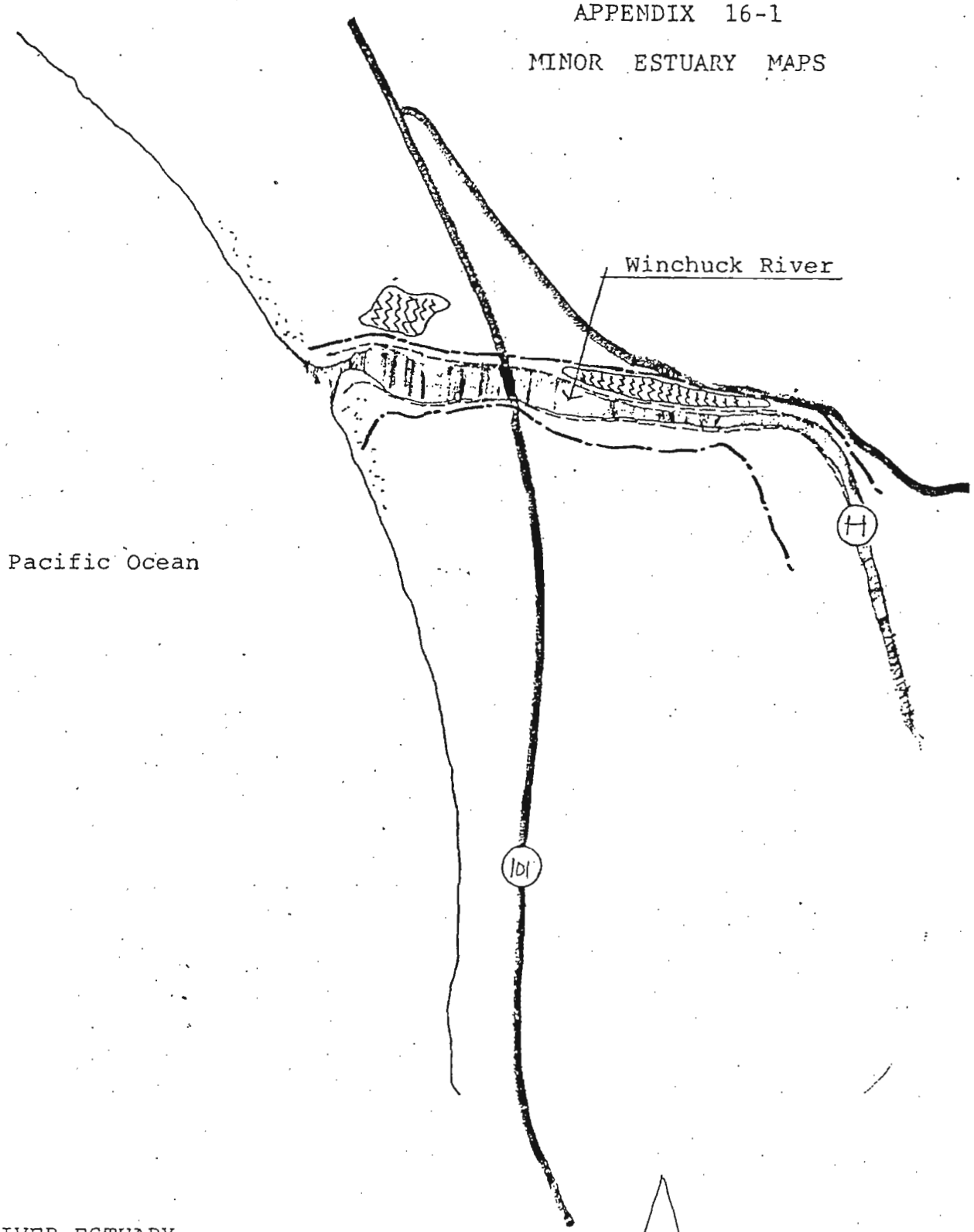
Riparian Vegetation

Estuary Classification: Natural

Zoning District: ER-1

APPENDIX 16-1

MINOR ESTUARY MAPS



WINCHUCK RIVER ESTUARY

- - - - - - - - - - Estuarine Boundary

—·—·—·— Estuary Shorelands Boundary

(H) Head of Tide

Coastal Dunes

Riparian Vegetation

Estuary Classification: Conservation

Zoning Districts: ER-1; ER-2

CHAPTER 17 - GOALS AND POLICIES

17.1 INTRODUCTION

This chapter of the comprehensive plan contains the goals and policies regarding land use in the county as set forth by the County Board of Commissioners in the development of the plan. These are not intended to be fixed, or unchangeable statements, but rather, they are intended to be reviewed periodically to insure that they reflect the desires of Curry County and the statewide goals and guidelines.

The goals and policies do not provide rigid requirements for future public and private land use, but instead serve as general statements to guide the implementation of the comprehensive plan. Curry County has developed policies regarding every aspect of the comprehensive plan which are intended to provide the guidance for specific decisions on land use in the future implementation of the plan.

Goal 1 - Citizen Involvement

GOAL: To provide for citizen involvement in all phases of the planning process by developing and maintaining a program of citizen involvement.

Policies

1. Curry County has developed a citizen involvement program with the formation of a Citizen Committee for Involvement (CCI) which carried an active part in the development of the comprehensive plan.

2. Curry County makes all planning materials available at public places for public review.

3. Curry County makes all steps of plan development a public process in workshop sessions that are publicized throughout the county.

4. Curry County advocates and encourages citizen involvement in all phases of comprehensive plan development and

(4) revision by holding public input meetings in various local communities of the county.

5. Curry County provides assistance to interpret and effectively use technical planning information from its planning staff.

6. Curry County provides for development, implementation and revision of its comprehensive plan with financial support.

7. Curry County shall continue to insure for adequate citizen involvement by having the Planning Commission review the Citizen Involvement Program on a regular basis and evaluate its operation and make changes if necessary.

Goal 2 - Land Use Planning

GOAL: To establish a land use plan and policy framework as a basis for all decisions and actions related to use of the land and assure an adequate factual base for such decisions, also to coordinate the county land use plan with all affected jurisdiction and agencies.

Policies

1. Curry County has adopted a land use plan for the county which is the basis for making decisions related to use of the land in the county.

2. Curry County has implementing ordinances to carry out the intent of the plan which are administered by the Planning Commission in a public hearing setting.

3. Curry County shall make all land use decisions on a factual basis with findings of fact and conclusions of law supporting each decision.

4. Curry County shall review its comprehensive plan and implementing ordinances at least once every two years in a public hearing to determine if the plan needs to be revised to take into account changing public policies and circumstances.

5. Curry County shall coordinate with all affected jurisdictions and agencies in matters of land use by notifying them of pending land use actions and permitting input into the decision as specified by signed management agreements or implementing ordinance requirements.

Goal 3 - Agricultural Lands

GOAL: To preserve and maintain agricultural lands by retaining the economically viable agricultural uses within the county.

Policies

1. Curry County seeks retention of agricultural land for agricultural use and reduction of uncertainty regarding the status of county agricultural lands by adopting a comprehensive plan which provides zoning of agricultural lands that is appropriate for the continuation of existing commercial agricultural enterprise consistent with Oregon Revised Statutes Chapter 215 (Agricultural Land Use Section).

2. Curry County seeks expansion of the food processing industry within the county by providing commercially and industrially designated lands for the siting of such facilities.

3. Curry County seeks expansion of the storage of water for irrigation by the use of impoundment structures on agricultural land.

4. Curry County seeks control and eradication of predators and poisonous weeds from agricultural lands to promote agricultural production with livestock.

5. Curry County promotes the opening of foreign and domestic markets for county agricultural products.

6. Curry County seeks improvement of agricultural services and facilities in the county which will assist local production.

7. Curry County seeks new lines of production which utilize local pelts and hides as well as other agricultural crops produced in the county.

8. Curry County seeks greater use of processed municipal and industrial wastes for agricultural fertilizer.

9. Curry County seeks local availability of low priced fertilizer, fuel, and other agricultural supplies.

10. Curry County will not approve an exception to Goal 3 for a comprehensive plan change from an agricultural designation to any nonresource plan designation if the subject property is in a special property tax assessment for farm use.

11. Curry County has also adopted the economic policies of the "Comprehensive Economic Development Strategy 1980-81 Action Program.

Goal 4 - Forest Lands

GOAL: To conserve forest lands for forest use.

Policies.

1. Curry County will apply forest zoning to all identified forest lands which are not committed to nonresource use in order to maintain such lands in forest uses as required by Statewide Planning Goal 4.

2. Curry County encourages the maintenance of maximum productivity of commercial forest lands through the implementation of its forest land zoning.

3. Curry County recognizes those non-conforming uses in existence on forest lands and will allow them to continue under the non-conforming provisions of the zoning ordinance.

4. Curry County encourages infilling those areas already affected by rural residential development and maintaining forest uses along residential fringes.

5. Curry County will require that non-forest uses adjacent to forest lands be subject to the provision of adequate setbacks from the forest land, disclosure procedures to alert land owners of possible future commercial timber harvest and forestry activity and to make provisions for adequate fire preventive measures.

6. Curry County recognizes the necessity for and supports the implementation of the Oregon Forest Practices Act.

7. Curry County supports reforestation and brushfield conversion and seeks to increase utilization of existing incentive programs and encourages the development of new incentives for this purpose.

8. Curry County will not approve an exception to Goal 4 for a comprehensive plan change from a forest designation to any nonresource plan designation if the subject property is in a special property tax assessment for forest use.

9. Curry County has also adopted the economic policies of the "Comprehensive Economic Development Strategy 1980-81 Action Program."

Goal 5 - Natural Resources

GOAL: To conserve open space and protect natural and scenic resources.

Policies:

A. With regard to Open Space Lands:

1. Curry county has adequate open space lands to meet the needs of its citizens and visitors on public lands in the county which are designated as such in the plan.

2. Curry County recognizes the value of open space as an asset to the county for scenic qualities, recreational opportunities, and wildlife habitat.

3. Curry County has preserved open space land within the county through the designation of much of the county land area for agricultural and forest use.

B. With regard to Mineral and Aggregate Resources.

1. Curry County recognizes the value of the mineral resources present in the county and seeks their development wherever possible to the benefit of the people and other resources of the county.

2. The extensive nickel and chrome deposits of the county have been identified by the plan and are of local and national importance and should be utilized to the economic benefit of the county.

3. The sand, gravel, and aggregate deposits identified by the plan are the most productive mineral resource in the county and continued utilization of these resources is essential to the growth of the county.

4. Potential conflicts exist between mineral resource extrations and municipal water intakes on several rivers and streams in the county which will have to be resolved after further study.

C. With regard to Energy Recovery.

1. Curry County has several sites which are suitable for the recovery of renewable energy from the wind on a commercial scale and these sites shall be retained for this use.

D. With regard to Wildlife Resources.

1. Curry County has a diverse wildlife which provides balanced natural community as well as outdoor recreational opportunities as identified in the plan.

2. The preservation of the wildlife resource is dependent upon retention of the natural habitats within which the animals live, with most of these habitat areas being located on public lands that provide the needed protection.

3. Curry County supports the retention of wildlife habitat on private land through the agricultural and forest land use designations but active habitat preservation or restoration must be carried out by the landowner because the county does not have any wildlife programs.

4. Curry County supports the retention of riparian vegetation along streams to protect anadromous fish populations within the limits of its ordinances but active riparian vegetation preservation or restoration programs are to be carried out by the land owner

E. With regard to Scenic Resources.

1. Curry County recognizes the value of its scenic landscapes and seeks to retain their beauty for the enjoyment of residents and visitors.

2. Curry County has identified in its plan that most of the scenic rivers and coastline areas in the county are in public ownership so they are adequately protected.

3. Curry County shall seek to have input into the decisions made by the State and Federal government regarding these areas as part of the coordination requirements under this plan.

F. With regard to Water Resources.

1. Curry County has identified in this plan a wide variety of water resources including rivers, streams, lakes and groundwater and seeks to have the water utilized to the benefit of the county.

2. Since the rainfall of the area is seasonal, Curry County encourages the construction of impoundments to retain water for use during the dry seasons and has identified suitable impoundment sites in its plan.

3. Due to the questionable availability of surface water and groundwater in some parts of the county, residential development will be encouraged only in areas which are known to have adequate supplies of potable water.

G. With respect to Cultural Resources.

1. Curry County has an interesting and varied history and seeks to preserve its cultural heritage wherever possible.

2. The county has identified all significant historical and archaeological sites in the county and will preserve these sites for the benefit of future generations within the limits of its legal powers as defined by the implementing ordinances of the plan.

Goal 6 - Air, Water and Land Resource Quality

GOAL: To maintain and improve the quality of the air, water and land resources of Curry County.

Policies

1. Curry County recognizes all applicable federal and state regulations concerning air, land and water quality and seeks their implementation to protect these resource qualities.
2. Curry County maintains a Department of Environmental Sanitation to implement the intent of these plan policies and their associated regulations.
3. Curry County will discourage activities which may lead to the degradation of the air, land and water resource quality through the implementation of its comprehensive plan.
4. Curry County will continue to encourage resource recovery via separation centers, recycling centers, and energy facilities.
5. Curry County will continue to promote the location of those businesses which may pose a noise nuisance problem into zones designated for such uses.

Goal 7 - Natural Hazards

GOAL: To protect life and property from natural disasters and hazards identified as potentially occuring in Curry County.

Policies:

1. Curry County seeks to protect its citizens from natural hazards by identifying such hazards as part of the comprehensive plan and informing them of the potential for loss of life and property from the hazard.

2. Curry County, where possible, has provided opportunities to mitigate the identified hazards by site evaluation assessemnts, and construction techniques through its administration of the Uniform Building Code.

3. Curry County has designated certain lands which are subject to severe and frequest natural hazards with a conservation plan designation to indicate their special significance and limit their use to those which will not be impacted by the hazard.

4. Curry County has identified those lands which are subject to periodic flooding and seeks to further identify such lands in flood studies.

5. Curry County participates in the National Flood Insurance Program for the protection of its citizens presently located in flood plains and to further limit future development in areas which are subject to flooding.

6. Curry County recognizes that areas within the county are subject to mass movements of soil and bedrock and has mapped these areas as part of the comprehensive plan and allows development in these areas only after the specific building site has been approved by a geologist licensed by the State of Oregon and requires that all special construction techniques be designed by an engineer licensed by the State of Oregon.

7. Curry County recognizes that many streams in the county have critical streambank erosion problems resulting in the loss of valuable land and has encouraged the use of and participates in the installation of bank protection devices.

8. Curry County has developed an Fmergency Services program to assist its citizens in the possibility of a general disaster by natural hazard such as earthquake, storm, or tsunami.

9. Curry County has an organized mutual aid agreement between all the city fire departments in the county to suppress structural fires and minimize property loss.

10. Curry County subscribes to the Uniform Building Code which provides construction standards that are designed to protect against earthquakes, high winds and groundwater.

Goal 8 - Recreation

GOAL: To satisfy the recreational needs of the citizens and visitors of the county.

Policies

1. Curry County seeks to provide recreational opportunities for the resident and tourist population and for future increases in these populations by identifying areas suitable for such use in the plan.

2. Curry County supports improved transportation facilities to allow increased recreational use and encourage development of increased access to existing facilities and attractions.

3. Curry County encourages the private development of recreational facilities within the county.

4. Curry County encourages cluster development to maximize open space within residential developments.

5. Curry County desires to enhance the recreational opportunities on public waters, recognized scenic areas, and Oregon Recreational Trails including provision of adequate support services.

6. Curry County will review the status of the Coast Range Hiking Trail at each scheduled plan update and determine whether there is sufficient information regarding the proposed trail in the comprehensive plan at that time.

7. Curry County will coordinate with the Oregon Department of Transportation in completing economic, social, environmental and energy consequence analysis as required by OAR 660-16-000 if and when a specific route is proposed for the incomplete trails.

8. Curry County encourages the protection and enhancement of fish and wildlife on public land to enhance the recreational appeal of the county.

9. Curry County will coordinate with the appropriate State and Federal agencies to identify and establish adequate recreational boating including boat ramps and access.

10. Curry County has several undeveloped state parks and state recreation sites that, if developed with intensive uses, could adversely impact adjacent lands; therefore, the State of Oregon shall submit <u>any</u> developmental plans for these areas to Curry County for public review and conditional use permit as provided in the Public Facilities designation and land use zone.

Goal 9 - Economy

GOAL: To diversify and improve the economy of Curry County.

<u>Policies</u>:

1. Curry County recognizes that the forest products industry is the single most important sector of its present economic structure and will continue to be such in the future.

2. Curry County wishes to assist the forest industry in seeking stability in timber supply in the region by encouraging timber production from all available resource lands public and private.

3. Curry County recognizes that the remaining significant sectors of its economy are resource related (agricultural, commercial fishing, and mineral industry) and seeks to support these industries in achieving future growth.

4. Curry County recognizes that tourism is an important part of its economy and seeks future development of this industry by attracting more destination tourists to the area and extending recreational opportunities.

5. Curry County recognizes that local commercial enterprise and industry should be diversified and seeks to attract new business and industry to the county by providing attractive sites and incentives for relocation.

6. The Curry County comprehensive plan designates lands suitable for commercial and industrial use and provides zoning that is compatible for those areas.

Goal 10 - Housing

GOAL: To provide for the housing needs for the citizens of the county.

1. Curry County encourages the development of adequate housing for all of its citizens in terms of location, quality, and affordability.

2. Curry County recognizes the need for all forms of housing and has designated lands for residential use with conventional homes, multi-family dwellings, and mobile home parks.

3. Curry County recognizes the need for quality home construction and has adopted and administers the Uniform Building and Plumbing Code to insure standard construction practices within the county.

4. Curry County supports public and private financial programs which help people afford adequate housing.

5. Curry County recognizes the housing needs of those people who desire to live in a planned community by providing a process by which planned unit developments can be created with unit ownership and common areas.

6. Curry County will revise its comprehensive plan with regard to housing should any significant change take place in the existing population or housing demand which indicates an adequate supply of housing units.

Goal 11 - Public Facilities

GOAL: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development in the county.

Policies

1. Curry County recognizes three levels of public facilities and services existing in the county:
   a) rural services
   b) rural community services
   c) urban services;
   and has defined these levels as part of the comprehensive plan.

2. Urban service levels located within county jurisdiction are planned to be included within the urban growth boundaries of cities so that these facilities can be further developed in coordination with the adjacent cities.

3. Rural community services are located within unincorporated community centers which have organized water districts, fire protection; and have been defined by a community boundary that separates the higher service level from the adjacent rural lands.

4. Rural lands are all other lands which are dependent upon individual sources of water and sewage disposal and have a limited level of other public facilities and services.

5. The comprehensive plan effectively separates urban service levels and rural service levels with urban growth boundaries and rural community boundaries.

6. The comprehensive plan designates uses appropriate to each of these service levels through the zoning and subdivision ordinances which determine land use and minimum lot size.

7. Curry County encourages the development of adequate public facilities and services to the benefit of its citizens where appropriate and economically feasible.

8. Curry County recognizes the need for adequate public facility levels in the rural community areas it has recognized and has materially aided many of these communities in developing these services.

9. Curry County recognizes the rural areas of the county as being a rural service area and does not encourage the provision of additional public services into these areas in order to preserve their rural character.

Goal 12 - Transportation

GOAL: To provide and encourage a safe, convenient and economic transportation system for the county.

Policies

1. Curry County will continue to develop its road system as the principal mode of transportation both for access to the county and within the county.

2. Curry County will seek further improvement of mass transit systems to the county by encouraging more frequent scheduling of commercial carriers and by continued support of those systems presently developed for mass transit within the county.

3. Curry County will seek to improve air transport to the county by recognizing the importance of the three county airports and continue to support the development of these sites for future expansion of air service.

4. Curry County will continue to support the development of the ports in the county in order to expand sea modes of transportation to and from the county.

5. Curry County will continue to support programs for the transportation disadvantaged where such programs are needed and are economically feasible.

6. The comprehensive plan encourages development to occur near existing community centers where services are presently available so as to reduce the dependence on automotive transportation.

7. Curry County will continue to support the development of an east-west arterial highway from U.S. 101 to Interstate 5 in the county

(7) as the best means of reducing the relative isolation of the area from the rest of the state.

Goal 13 - Energy Conservation

GOAL: To conserve energy by designating land uses which lead to the maximum conservation of all forms of energy based on sounc economic principals.

Policies

1. Curry County has designated land uses in its comprehensive plan with the intent of achieving energy conservation and the county will continue to achieve this goal by making land use decisions that are consistent with energy conservation.

2. Curry County recognizes that there is potential for the generation of energy from alternate and renewable sources and has made provisions in its implementing ordinance to allow the installation of devices which will generate such energy.

3. Curry County recognizes the use of wood as an alternate fuel source for heating and has encouraged the use of wood as a fuel through its building code which allows wood fuel heating and its zoning ordinance which designates lands for forest and woodlot use.

Goal 14 - Urbanization

GOAL: To provide for an orderly and efficient transition from rural to urban land use in the county.

Policies

1. Curry County defines "rural uses" as those uses which are located outside of urban growth boundaries including non-urban agriculture, forestry, open space, sparse settlement, small farms or acreage homesites with no or hardly any public services.

2. Curry County defines "urban uses" as those which are high intensity residential, commercial or industrial uses located inside urban growth boundaries, or outside urban growth boundaries where an exception to Goal 14 has been justified.

3. Curry County recognizes the urban growth boundaries of Port Orford, Gold Beach and Brookings and the mutually adopted Management Agreements for these areas.

4. The county will work to coordinate with the respective cities with regard to land use decisions affecting the urban growth areas.

5. The county will cooperate with the respective cities to review the established urban growth boundaries at the time of periodic review of the comprehensive plan. Such review will be based upon consideration of the following:

   a) demonstrated need to accommodate long-range urban population growth requirements;
   b) need for housing, employment opportunities, and livability;
   c) orderly and economic provision for public facilities and services;
   d) maximum efficiency of land uses within and on the fringe of the existing urban area;
   e) environmental, energy, economic and social consequences;
   f) retention of agricultural land, with class I being the highest priority for retention and class VI the lowest;
   g) compatibility of the proposed urban uses with nearby agricultural activities.

6. Curry County recognizes the rural communities of the county as an additional type of development in the county and has determined boundaries for these communities based on the existing land use in the community and the requirements for a Goal 2 exception to Goal 14.

7. Curry County recognizes rural lands in the county and seeks to retain the rural character of these lands by limiting the development of these lands through rural zoning which will retain the rural character of these areas as reflected in the existing lot size pattern.

8. Curry County has zoned the lands located within the various urban growth areas for urban use and these urban land use zones shall not be applied to lands lying outside of a defined urban growth boundary.

9. Curry County has zoned lands located within the rural communities for either urban use or rural use based on Goal 2 exceptions to Goal 14 for the areas zoned for urban uses; the urban use zones Rural Industrial (RI), Rural Commercial (RC), Rural Resort Commercial (RRC) and Rural Community Residential (RCR-1 and RCR-2.5) shall not be applied to areas presently zoned for rural use unless a Goal 14 exception is approved by the county.

10. Curry County has zoned lands located within the various rural land exception areas for Rural Residential (RR-5, RR-10) use which limits rural residential development to dwellings on existing parcels and the development of new parcels at a density of 5 acre or 10 acre minimum lot sizes.

11. Curry County recognizes that rural residential development in the Floras Lake area (Rural Lands Exception Areas 1 and 2) are unique because of the existence of the Pacific City Town Plats, therefore, development in these exception areas will be limited to one dwelling unit per contiguous ownership of record (all contiguous platted lots in single ownership) and further divisions of land will be limited to a 5 acre minimum lot size.

12. Curry County will limit commercial and industrial uses on rural lands to no more than a total of three separate commercial or industrial uses on a single parcel presently zoned for such use; and not allow the rezoning of land to permit more than a total of three separate commercial or industrial uses within a single rural exception area excluding rural communities.

Goal 16 - Estuaries

GOAL: To recognize the unique environmental economic and social values of the county estuaries and to protect, maintain and develop the long

term values, diversity and benefits of these estuaries.

Policies

A. For estuaries:

1. Curry County recognizes the overall Oregon Estuary Classification for the county's estuaries.

2. Curry County will protect the estuarine ecosystem, including:

   a) its natural biological productivity

   b) unique features

   c) water quality.

3. Curry County will allow dredging, fill, or other reduction or degradation of the above mentioned natural values only:

   a) if required for navigation or other water-dependent uses that require an estuarine location; and

   b) if a public need is demonstrated; and

   c) if no alternative upland locations exist; and

   d) if adverse impacts are minimized as much as feasible.

4. Curry County will allow rip-rap in Natural estuarine designations to a very limited extent where necessary for erosian control to protect:

   a) uses existing as of October 7, 1977; and

   b) unique natural resource and historical and archeological values;

   c) public facilities; and

   d) where consistent with the natural management unit description of the Curry County Comprehensive Plan and other conditions in the ordinance relating to non-structural solution and minimizing adverse impacts.

5. Curry County will identify and assess sites for restoration on a case by case basis through the state and federal permit process. Appropriate sites may include areas of:

a) heavy erosion or sedimentation

b) degraded fish and wildlife habitat

c) anadromous fish spawning or rearing areas

d) abandoned diked estuarine marsh areas; and

e) areas where water quality restricts tie use of estuarine waters for fish and shellfish harvest and production, or for human recreation.

6. Curry County will allow estuarine dredge or fill actions as estuarine restoration, pursuant to Policy 5. only upon findings which demonstrate the following:

   1) A factual assessment of the nature and extent of the estuarine resource believed to have existed at the proposed restoration site at some time in the past.

   2) A factual assessment of how the estuarine resource at the site was lost, and

   3) A comparison of the resource enhancement expected to result from the proposed restoration project together with a determination that the proposed project will, in fact probably restore all or some of the resource value lost at the site.

7. Curry County will identify and assess sites to mitigate the effects of dredge or fill actions in intertidal or tidal marsh areas by creation, restoration or enhancement to fulfill the requirements of ORS 541.626 (2), except where a waiver is permitted under ORS 541.625 (4).

8. Curry county will restrict the proliferation of individual single-purpose docks and piers by encouraging community facilities common to several uses and interests by considering alternatives such as mooring buoys, dryland storage and launching ramps, and by limiting the size and shape of a dock or pier to that required for the intended use.

9. Curry County will consider establishing minimum freshwater flow rates and stnadards so that resources and uses of the estuary will be maintained. They include:

   a) navigation

   b) fish and wildlife characteristics; and

c) recreation.

10. Curry County will recognize the following authorities in managing lands rather than developing new or duplicating management technique or controls to maintain water quality and minimize man-induced sedimentation in the county's estuaries:

    a) Forest Practices Act;

    b) Programs of the Soil Conservation Service;

    c) Department of Environmental Quality Water Quality Programs

    d) Division of State Lands Fill and Removal Program.

11. Curry County will analyze impacts of proposed alterations which would potentially alter the integrity of the estuarine ecosystem. A demonstration of the public need and gain from such modification or loss is required.

12. Curry County will consider the potential for using upland sites to reduce or limit the commitment of the estuarine surface area for surface uses.

13. Curry County will consider and describe the cummulative effect of all uses, activities and alterations during plan development and adoption.

B. For estuarine shorelands:

1. Curry County will maintain the diverse environmental, economic and social values of the county's estuary shorelands.

2. Curry County will minimize man-induced sedimentation in the estuaries.

3. Curry County will reduce the hazards to human life and property from the use and enjoyment of the estuarine shorelands.

4. Curry County will reduce the adverse effects upon water quality and fish and wildlife habitat resulting from the use and enjoyment of the county's estuary shorelands.

5. Curry County will ensure compatibility with the characteristics of adjacent coastal waters.

6. Curry County will consider the relationships between estuarine shorelands and:

   a) resource of coastal waters;

   b) associated geologic and hydrologic hazards.

   Such considerations will be included in:

   a) comprehensive plan changes and revisions,

   b) implementing actions, and

   c) permit reviews.

7. Curry County will manage floodplain areas consistent with the hazards to life and property.

8. Curry County will fullfill the mitigation requirement of Oregon law by protecting identified mitigation sites from preemptory uses.

9. Curry County will fullfill the dredge material disposal plan to protect identified shoreland areas from new uses which would prevent their ultimate use for dredged material deiposal.

10. Curry County will encourage the disposal of dredged material in uplands or ocean waters, and to permit in-water disposal only where consistent with the Estuarine Resources Goal and state and federal law. The disposal of dredged material in intertidal areas is prohibited unless part of an approved fill project.

11. Curry County will maintain riparian vegetation especially important to:

    a) water quality;

    b) fish and wildlife habitat;

    c) recreational use; and

    d) aesthetic resource.

12. Curry County will provide first priority for non-structural solutions to problems of erosion and flooding.

13. Curry County will protect

    Major marshes (non-tidal)
    Significant Wildlife Habitat;
    Coastal Headlands;
    Exceptional Aesthetic Resources; and
    Historic and Archaeological Sites.

14. Curry County will protect shorelands in urban and urbanizable areas especially suited for:

    a) water-dependent recreation uses;

    b) water-dependent commercial uses;

    c) water-dependent industrial uses.

    Some factors which contribute to this special suitability are:

    a) deep water close to shore with supporting land transport facilities suitable for ship and barge facilities;

    b) potential for aquaculture:

    c) protected areas subject to scour which would require little dredging for use as marinas; and

    d) potential for recreational utilization of coastal water or riparian resources.

15. Curry County will protect shorelands in rural areas as appropriate for

    a) farm uses as provided in ORS Chapter 215.

    b) propagation and harvesting of forest products consistent with the Oregon Forest Practices Act.

    c) private and public water-dependent recreational development.

    d) aquaculture;

    e) water-dependent commercial and industrial uses and water-related uses only upon a finding by the governing body of the county that such uses satisfy a need which cannot be accommodated on shorelands in urban and urbanizable areas:

    f) subdivisions, major and minor partitions and other uese only upon a finding by the governing body of the county that such uses satisfy a need which cannot be at other upland locations or in urban or urbanizable areas and are compatible with the objectives of this goal to protect riparian vegetation and wildlife habitat; and

g) a single family residence on existing lots, parcels or units of land when compatible with the objectives and implementation standards of the Shoreland Overlay (SO) Zone.

16 Curry County will encourage the collection of new data regarding the economic, social, and environmental characteristics of county estuaries since the present data base is very poor making it very difficult to arrive at meaningful planning decisions.

17. Curry County will revise the estuary plan upon receipt of new and sufficient data regarding estuarine areas which in its estimation provide a basis for changing the present plan designations.

GOALS 17 and 18 - Coastal Shorelands and Beaches and Dunes

GOAL: To conserve, protect, and where appropriate develop and where appropriate restore the resources of and benefits of the county's shorelands, beaches and dunes.

1. Curry County recognizes the importance of coastal shorelands and has defined the coastal shoreland area by a boundary that is related to physical processes that affect the shoreland or is defined by the Coastal Shoreland Goal.

2. Curry County has defined the resources of the coastal shoreland area and find that they are protected by either inclusion in state parks or by appropriate zoning by the county.

3. Curry County will continue to protect the resource values of coastal shorelands by implementing its zoning ordinance in the shorelands area in compliance with the Coastal Shorelands Goal.

4. Curry County recognizes that the beach and dune areas of the county are critical environments which are an asset to the county in the form of providing scenic settings as well as recreational opportunities.

5. Curry County recognizes that the seacliffs and coastal headlands of the county provide some of the most scenic setting in the county and are mostly protected as an asset to the county by being in public ownership.

6. Curry County recognizes that seacliffs and coastal headlands in the county that are potentially eroding as part of the natural coastal erosion process and present a hazard to development uses unless proper precautions are taken.

7. Curry County has identified that the dune fields of the county and that they provide a unique ecological habitat for several rare plant species and the western snowy plover; most of these areas are protected by being in public ownership.

8. Curry County has identified that recreational uses of the beaches and dunes of the county should be encouraged by providing public access points wherever possible.

9. Curry County recognizes that ORV use on some beaches in Curry County is common and should be allowed wherever safe access is possible and state laws are followed for the use of such vehicles.

10. Curry County will not permit developmental uses on areas identified as beaches or active foredunes since these areas are too hazardous for permanent structures.

11. Curry County will permit developmental uses in the vicinity of eroding seacliffs or on stable dunes when findings are made by a competent professional which adequately protect the proposed structure from any potential geological hazard or adverse environmental impact.

12. Curry County has designated beach and active dune areas of the county where developmental uses are not permitted with a beach and dune conservation zone to allow other uses which are appropriate to the aesthetic, environmental and recreational values of the areas.

13. Curry County will permit beach front protective structures only under provisions of ORS 390.605 to 390.770 for structures existing prior to January 1, 1977. Protective structures to protect subsequent structures shall be required to receive a review by all affected agencies and local review by the Planning Commission to determine that they a) minimize visual impact, b) do not impair beach access, c) do not create negative impact on adjacent property, d) do not create long term or recurring costs to the public.

14. Curry County will permit the breaching of foredunes on a temporary basis for emergency situations such as fire control, draining farm lands, flood control, and to replenish sand supply in interdune areas as long as restoration of the breach is carried out after the emergency using sound principals of conservation.

15. Curry County will regulate action in beach and dune areas, including older stabilized dunes, to minimize resulting erosion. Such actions include the removal of stabilizing vegetation, the exposure of stable areas to erosion and construction of shore structures.

16. Curry County will take measures to protect groundwater from drawdown which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of salt water into water supplies.

CHAPTER 18. IMPLEMENTATION OF THE PLAN

18.1 INTRODUCTION

The comprehensive plan for Curry County sets the county policy for land use in the county. This policy is implemented by a series of ordinances and procedures that carry out the intent of the plan and define the format for making land use decisions.

18.2 PLAN DESIGNATION - ZONE RELATIONSHIP

The Curry County Comprehensive Plan is implemented by the Zoning Ordinance which specifies 17 separate land use zoning districts in the county. Many of these zones are similar in the uses allowed and in the geographic areas in which they have been applied in the county so that they can be combined into more general "comprehensvie plan designations." Table 2.3.B lists the plan designations identified in the county, the land-use zones within those designations and total land area of the county with each designation.

Oregon land use law differentiates between simple zone changes and comprehensive plan designation changes by making comprehensive plan changes more involved governmental processes than small tract zone changes. Comprehensive plan changes require a more involved public notification process, involvement of the Department of Land Conservation and Development, and the criteria under which the change can be approved become more significant than for a simple zone change. In addition, certain comprehensive plan changes which involve resource lands would require valid exceptions to the Statewide Planning Goals if approved. Therefore the comprehensive plan must define what land use actions are plan changes and what actions are zone changes so that the two types of action can be differentiated in the implementation of the plan.

Figure 18.2.A is a matrix diagram of all the possible actions defined under the 17 land use zones specified in the Zoning Ordinance. Each possible land use action is defined as:

1) comprehensive plan change possibly requiring Goal exceptions;
2) comprehensive plan change with only impact on the plan itself; or a
3) zone change of mimimal impact to the plan.

Utilizing this diagram any proposed land use change can be identified with regard to the procedure by which it will be processed under the implementation provisions of the comprehensive plan.

FIGURE 18.2.A

PLAN DESIGNATION - ZONE CHANGE RELATIONSHIP

FROM

TO

ZONE	T	FG	AFD	EFU	RR	R-1	R-2	R-3	RCR	RRC	RC	C-1	C-2	I	CN	ER	MA	PF
T	—	○	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
FG	○	—	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
AFD	□	□	—	○	□	□	□	□	□	□	□	□	□	□	□	□	□	□
EFU	□	□	○	—	□	□	□	□	□	□	□	□	□	□	□	□	□	□
RR	△•	△•	△•	△•	—	□	□	□	□	□	□	□	□	□	△	△	□	□
R-1	△•	△•	△•	△•	△	—	○	○	△	△	△	□	□	□	△	△	□	□
R-2	△•	△•	△•	△•	△	○	—	○	△	△	△	□	□	□	△	△	□	□
R-3	△•	△•	△•	△•	△	○	○	—	△	△	△	□	□	□	△	△	□	□
RCR	△•	△•	△•	△•	△	□	□	□	—	△	□	□	□	□	△	△	□	□
RRC	△•	△•	△•	△•	△	□	□	□	△	—	△	□	□	□	△	△	△	△
RC	△•	△•	△•	△•	□	□	□	□	△	△	—	□	○	□	△	△	□	□
C-1	△•	△•	△•	△•	△	□	□	□	△	△	△	—	○	□	△	△	□	□
C-2	△•	△•	△•	△•	△	□	□	○	△	△	△	○	—	□	△	△	□	□
I	△•	△•	△•	△•	△	□	□	□	△	△	△	□	□	—	△	△	□	□
CN	□	□	□	□	□	□	□	□	□	□	□	□	□	□	—	○	□	□
ER	□	□	□	□	□	□	□	□	□	□	□	□	□	□	○	—	□	□
MA	⊡•	⊡•	⊡•	⊡•	□	□	□	□	□	□	□	□	□	□	□	□	—	□
PF	⊡•	⊡•	⊡•	⊡•	□	□	□	□	□	□	□	□	□	□	□	□	□	—

△ EXCEPTION/PLAN CHANGE

□ PLAN CHANGE

○ ZONE CHANGE

NOTE:

△• ⊡• PLAN CHANGE REQUIRES LAND TO BE REMOVED FROM SPECIAL PROPERTY TAX ASSESSMENT FOR RESOURCE USE.

18.3 IMPLEMENTATION ORDINANCES

The county zoning and subdivision ordinances are the basic implementation ordinances of the comprehensive plan. These ordinances set forth the intent of the comprehensive plan by defining specific land uses in all parts of the county and establishing the procedures for the division of land.

The zoning ordinance provides the following aspects of comprehensive plan implementation:

1) specifies outright land uses;
2) specifies conditional land uses;
3) provides a procedure for changing land use;
4) specifies land dimensional standards for land uses (i.e. lots sizes, set backs, structure heights, etc.);
5) provides for variances, non-conforming uses and other procedures related to the land use specifications;
6) provides the criteria for divisions of land in each land use designation;
7) provides specific procedures for making land use decisions regarding special classes of land (i.e. flood hazard areas, natural hazard area, airport areas, etc.);
8) provides for public notification, hearings and appeal procedures in carrying out land use decisions.

The zoning ordinance is the central feature of comprehensive plan implementation because it carries the intent of the comprehensive plan from generalized policy to the site specific designation of land use within the county. The ordinance is essential to the comprehensive plan because it becomes the embodiment of all plan policy and provides the procedure for making minor changes in the comprehensive plan.

The subdivision ordinance provides the following aspects of comprehensive plan implementation:

1) defines the various types of divisions of land based on the nature of the land division and the number of lots created;

2) provides the specific requirements for preparing maps, plats, and written descriptions of land being divided;

3) provides coordination between county requirements for roads, sewage disposal, domestic water availability, and other services when divisions of land are proposed;

4) provides a procedure for public review of proposed land divisions by the county.

The Curry County Zoning and Subdivision Ordinances are linked by the fact that some zone changes are related to division of land. The Rural Residential, and community residential zones, have the same uses but different minimum lot sizes; therefore, the zone change will require the simultaneous filing of an application for a division of land. This form of ordinance linking is the only logical method of justifying a zone change for smaller minimum lot standards.

Other county ordinances aid in the implementation of the comprehensive plan by providing requirements for special aspects of planning and in specific areas of the county. These ordinances and their area of influence are the following:

1. The Flood Hazard Ordinance - this ordinance is utilized in conjunction with the federal "flood insurance rate maps" to determine what uses and specific construction practices in areas known to be subject to flooding.

2. The Curry County Road Standards Ordinance - this ordinance defines the types of roads in the county and the construction standards to which new roads will be built. For planning purposes this ordinance is linked to the subdivision ordinance and is utilized to determine the construction standards for new roads in major partitions and subdivisions.

3. The Uniform Building Code - this code is linked to the comprehensive plan and other implementing ordinances by providing specific standards for the construction of all structures in the county.

   This code is linked to the subdivision ordinance and to the ministerial decision processes of the county in permitting the development of individual lots.

The ordinances described above have been adopted by the county along with the comprehensive plan to provide for the day to day implementation of the comprehensive plan by the Planning Commission and the various county officials that make land use decisions. Actual decisions are made within the context of procedures set forth in these ordinances and are described in the following sections.

18.4 IMPLEMENTATION PROCESURES

The Curry County Planning Commission is the body of county government that is responsible for implementation of the comprehensive plan. The Planning Commission is responsible for making all decisions regarding comprehensive plan-zone changes, conditional uses, variances and other functions of the zoning ordinances. In addition, the Planning Commission reviews all divisions of land on resource land, all major partitions, and subdivisions under provisions of the subdivision ordinance.

All Planning Commission actions are carried out as public hearing matters in a quasi-judicial setting. Implementation ordinances require written notification of adjacent property owners and public notice in local newspapers and to assure citizen involvement in the decision-making process. Hearings before the Planning Commission generally follow a standard format and procedure as described below:

1) a staff report is presetned which lays out all factual material relating to the application;
2) the applicant presents his proposal to the Planning Commission along with all factual material supporting the application;
3) the public is provided an opportunity for testimony regarding the matter;
4) the Planning Commission deliberates over all factual material and testimony regarding the application and reaches its decision;
5) all decisions of the Planning Commission are reached on a factual basis and are supported by a set of findings which address the comprehensive plan and statewide planning law;
6) all decisions of the Planning Commission are subject to review or appeal to the County Board of Commissioners as a due process of law;
7) the county utilizes a 15 day appeal period after which the Planning Commission action becomes the final action of the county.

Appeal actions to the Board of County Commissioners are considered as de novo hearings or hearings in which the land use action is reconsidered without any dependence on the previous action of the Planning Commission. The Board of County Commissioners consider all land use hearings under the provisions of the county ordinance covering such actions. The format of the hearing is essentially identical to that used by the Planning Commission except that factual material is handled as evidence and oral testimony is treated in a

formal manner. All decisions by the Board of Commissioners are reached on a factual basis and supported by a set of findings as with Planning Commission actions. The decision of the Board of Commissioners in appealed matters becomes the final action of the county.

The only land use actions which are handled as ministerial functions are the approval of minor partitions on lands irrevocably committed to non-resource use. These lands are designated for residential, commercial, industrial, marine activity, and public facilities by the comprehensive plan. The requirements for a minor partition are specified in the subdivision ordinance and involve the technical aspects of dividing the land. Findings regarding developmental use of the land are made by the comprehensive plan through the committed lands process.

18.5 MANAGEMENT AREAS

The Curry County Comprehensive Plan includes several areas that are mutually managed by Curry County and another jurisdiction. These areas include:

1) the Wild and Scenic River Areas;
2) the City of Port Orford Urban Growth Area;
3) the City of Gold Beach Urban Growth Area;
4) the City of Brookings Urban Growth Area.

The Wild and Scenic River corridors are defined by the federal and state governments and have restrictions placed on the level of development allowed in these areas. The zoning ordinance has provisions for notification of the appropriate governmental agencies of any pending land use action in these areas.

The urban growth areas of the cities of Port Orford, Gold Beach and Brookings are managed under the provision of land use management agreements negotiated between the city and county. These agreements are appended to the comprehensive plan and are a significant aspect of plan implementation.

CHAPTER 19. FUTURE PLANNING ISSUES

19.1 INTRODUCTION

The Curry County Comprehensive Plan provides a framework for land use decisions based on data which includes projections for a twenty year planning period to the year 2000. However, the plan is also a flexible document which is intended to respond to changes that involve the physical and social characteristics of the county. Therefore rather than be cast in concrete and totally rigid in terms of implementation over the planning period, the comprehensive plan must provide for periodic revision to meet the needs of the people.

19.2 COMPREHENSIVE PLAN REVISIONS

Comprehensive plan revisions are of two types as defined by LCDC Goal 2; 1) major revisions; and 2) minor changes. Major revisions are "land use changes that have widespread and significant impact beyond the immediate area" and changes that result when "public needs and desires change and when development occurs at a different rate than contemplated by the plan."[1] Minor plan changes are "those which do not have significant impact beyond the immediate area of the change".[1] Zone changes are not necessarily minor plan changes unless they reflect a change in land use designation which drastically alters the nature of land use (i.e. from a resource to a non-resource use). Any change in the comprehensive plan shall be based on a justification of the public need for the change and shall be supported by information that forms a factual basis for the change.

19.2.1 Comprehensive Plan Revision Schedule

LCDC Goal 2 provides a guideline concerning the periodic review of comprehensive plans with the statement that "areas experiencing rapid growth and development should provide for a frequent review so needed revisions can be made to keep the plan up to date."[1] The Goal 2 guideline goes on to state that "the plan and implementation measures should be reviewed every two years and a public statement issued on whether any

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[1] LCDC (1978)

revision of the plan is needed."[1] The comprehensive plan can be reviewed in its entirety or in major portions, but if a major revision is undertaken it must proceed through the acknowledgement process to establish that the revision complies with statewide planning goals.

Curry County believes that its comprehensive plan must conform to the needs of its citizens so that the plan will require frequent review to ascertain whether it is in need of revision. The county also has great potential for changes that will result in impact of sufficient magnitude to necessitate a major revision of the comprehensive plan. Therefore Curry County will schedule a regular review of the plan every two years beginning with the date the comprehensive plan is acknowledged by LCDC. This review will consist of a public hearing to accept citizen input regarding the comprehensive plan and its implementing ordinances that will be used to determine whether there is a public need to revise any or all aspects of the comprehensive plan.

19.2.2 Comprehensive Plan Revision Procedure

A review of the comprehensive plan by the county is scheduled for every two years with the procedure for carrying out such a review being as follows:

1. Curry County designates the County Planning Commission as the public body to conduct the comprehensive plan review.

2. The Planning Commission shall schedule a public hearing for citizen input regarding the comprehensive plan within two months of the scheduled review date.

3. The Planning Commission hearing shall be preceeded by a public notice in all areas of the county at least 30 days prior to the hearing to allow for adequate citizen involvement.

4. The Planning Commission hearing regarding comprehensive plan review shall include at least the following elements:

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[1] LCDC (1978)

a) a staff report by the county planning department which reviews the comprehensive plan elements, a summary of significant land use actions since the last plan review, and an assessment of any identified impacts to the plan during the period since the last plan review;

b) a period of public input to allow adequate time for individual citizens to present their testimony regarding plan revision;

c) a period of public discussion by the Planning Commission regarding the staff report and public testimony in which the Planning Commission should arrive at a decision as to whether the comprehensive plan needs major revision; however, the Planning Commission does have the option of continuing the hearing to a future date in order to obtain additional information;

d) Once the Planning Commission reaches a decision, that decision will be transmitted to the Board of County Commissioners by the Planning Director together with a report regarding the public hearing.

e) the Board of County Commissioners shall review the Planning Commission decision as a recommendation and in turn make a final determination as to the necessity for a revision of the comprehensive plan.

f) if the county decides that a revision of the comprehensive plan is needed, the Planning Director shall immediately begin the planning process for development of a revised comprehensive plan as specified by the statewide planning goals.

The process to revise the comprehensive plan shall follow the same process that was used to develop the original plan including the citizen involvement program, inventory up-date, analysis of issues, and policy revision. Once the revision of the comprehensive plan is complete, it shall be adopted by the county and forwarded to LCDC for reacknowledgement.

19.3 FUTURE ISSUES POTENTIALLY REQUIRING PLAN REVISION

There are many potential issues facing Curry County which could require a major revision of the comprehensive plan at a time other than the regularly scheduled review as described above. There issues include economic and social factors which are already known to have a potential for impact upon the plan. Among the most significant of these issues are the following:

1) Should the county become the site of a major development that will cause an abrupt population increase and causing impacts to the local housing, public facilities, and transportation system, the county may immediately revise its comprehensive plan to accommodate the needs of this development.

2) Should there be a major change in the utilization of the resources of the county (i.e. development of nickel deposits, complete failure of the lily bulb or cranberry market, etc.) the county may immediately revise its comprehensive plan to reflect the change in its economic structure and resource inventories.

There is also the possiblity that an immediate major comprehensive plan revision could be required in the aftermath of a major natural disaster. The county is subject to natural hazards that can cause extensive damage to wide areas of the county as is demonstrated by storms, fires and floods which have affected the county in the past. The necessity for a comprehensive plan revision in this situation would probably be part of a general assessment of the situation following the disaster.

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