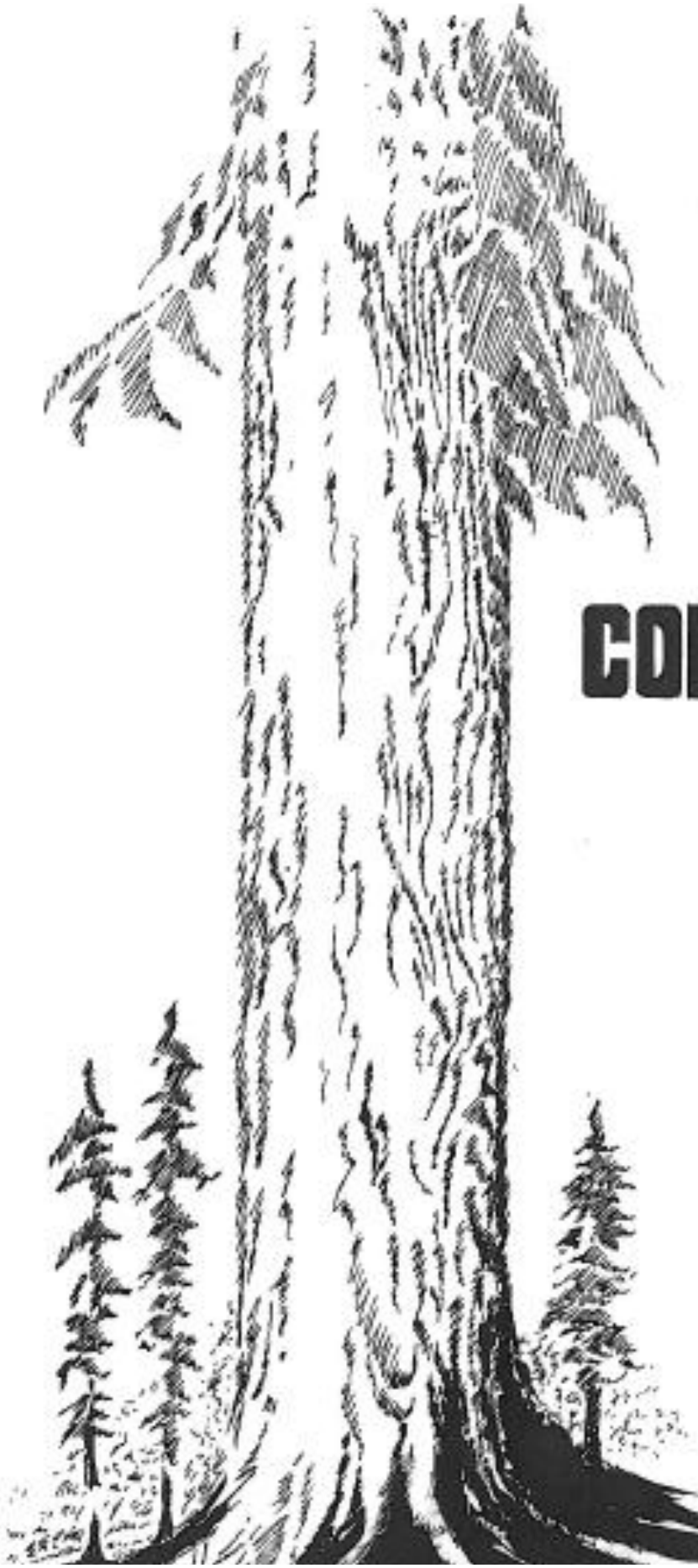

comprehensive plan

ROSEBURG URBAN AREA

DECEMBER 1984

ROSEBURG URBAN AREA
COMPREHENSIVE PLAN
TECHNICAL SUPPORT DOCUMENT

March, 1982

City of Roseburg
Department of Planning and Community Development
900 S. E. Douglas Street
Roseburg, Oregon 97470

Preparation of this report was financially aided in part through a comprehensive planning grant from the Department of Land Conservation and Development.

ROSEBURG CITY COUNCIL

John Dunn, Mayor
Lois Allen
Clay Campbell
Bi11 Neuner
Fran Huntington
Ron Sturz
Wes Wilhite
Gary Fraelich

George Stubbert, City Manager

ROSEBURG PLANNING COMMISSION

Carol Vest, Chairperson
Richard Cremer
Jim Fox
Brenda Gardner
Howard Peterson
John Westran
Mikael Jones

CITIZENS ADVISORY COMMITTEE

James Zelenka, Chairman
Manya Hatter
Lyle Baker
Howard Burdette
Don Dole
Nancy Felker
Wayne Howe
Ron Northcraft

Technical assistance provided through the combined staff effort of the City of Roseburg Department of Planning and Community Development.

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EXHIBIT "A"
TO
ORDINANCE NO. 2345

THE COMPREHENSIVE PLAN FOR THE ROSEBURG URBAN AREA, BEING A LARGE DOCUMENT, IS INCORPORATED HEREIN BY REFERENCE. COPIES ARE AVAILABLE DURING WORKING HOURS FOR REVIEW IN THE OFFICE OF THE CITY RECORDER, CITY HALL, CITY OF ROSEBURG.

STATE OF OREGON)
COUNTY OF DOUGLAS) SS.

I, DORIS L. WADSWORTH, COUNTY CLERK AND RECORDER OF CONVEYANCES, IN AND FOR SAID COUNTY, DO HEREBY CERTIFY THAT THE WITHIN INSTRUMENT WAS RECORDED THIS DAY:

1982 APR 19 PM 3 21

BY _____ DEPUTY

NO. _____ FEE _____

DOUGLAS COUNTY OFFICIAL RECORDS

82-03803

ORDINANCE NO. 2345

AN ORDINANCE ADOPTING THE COMPREHENSIVE PLAN FOR THE ROSEBURG URBAN AREA AND SETTING FORTH PROCEDURES APPLICABLE THERETO.

WHEREAS, the City of Roseburg was charged by law with developing a Comprehensive Plan for the Roseburg Urban Area in accordance with the statewide goals promulgated by the Land Conservation and Development Commission;

WHEREAS, the Citizens Advisory Committee appointed by the City Council developed a Proposed Comprehensive Plan and held numerous public hearings on the same;

WHEREAS, the Roseburg Planning Commission has reviewed and refined the proposed Comprehensive Plan for the Roseburg Urban Area and held numerous public hearings on the same;

WHEREAS, the City Council has reviewed and revised the recommended Comprehensive Plan after public hearings and extensive public comment;

WHEREAS, the Comprehensive Plan for the Roseburg Urban Area including the Urban Growth Boundary is complete; and

WHEREAS, it is recognized that the implementing Land Use and Development Ordinance and the Urban Growth Boundary Management Agreement will be completed forthwith and ready for adoption prior to July 1, 1982.

NOW, THEREFORE, THE CITY OF ROSEBURG DOES ORDAIN AS FOLLOWS:

SECTION I. The Comprehensive Plan for the Roseburg Urban Area attached hereto as Exhibit A and incorporated herein by reference is hereby adopted, effective July 1, 1982. All land use actions on or after said date shall comply with the Comprehensive Plan.

SECTION II. The following procedure is hereby established should it be necessary to make amendments to Exhibit A between the effective date of this Ordinance and July 1, 1982:

A) The City Council shall receive all proposed amendments and hold a public hearing thereon, giving at least ten (10) days' public notice in a newspaper of general circulation;

B) The Planning Commission shall review the proposed amendments and provide comments and recommendations to the City Council.

Subsequent to July 1, 1982, the foregoing procedure established in Section II of this Ordinance no longer applies and is cancelled.

PASSED BY THE COMMON COUNCIL THIS 22nd DAY OF March, 1982.

APPROVED BY THE MAYOR THIS 22nd DAY OF March, 1982.

Mayor

ATTEST:

Recorder

ATTACHMENT A

1992 MAY -7 PM 4:11
CAY FIELDS
DOUGLAS COUNTY CLERK

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, OREGON

IN THE MATTER OF ACCEPTING THE ROSEBURG MUNICIPAL AIRPORT MASTER PLAN UPDATE, 1986-2005) ORDER

It appearing to the Board of Commissioners that the Roseburg Regional Airport is a significant economic resource and public facility and that the present airport plan needs to be updated to enhance this resource and facility.

It also appearing to the Board of Commissioners that State and Federal grant monies are available for updating airport plans.

It further appearing to the Board of Commissioners that the State and Federal governments require the County to accept the Master Plan before the airport is eligible for grant monies to update the plan.

NOW, THEREFORE, IT IS HEREBY ORDERED that the County accept the Roseburg Municipal Airport Master Plan Update, 1986-2005 with the conditions following:

1. The Airport Plan is a non-regulatory document for lands in the Urban Growth Area (UGA) and other unincorporated areas.

2. The City and County will coordinate in the submission of grant applications for State and Federal grant monies for the purpose of updating the Airport Plan.

3. The City and County will coordinate in the update of the Roseburg Master Airport Plan for the purpose of co-adopting a Roseburg Regional Airport Plan.

DATED this 6th day of May, 1992.

BOARD OF COUNTY COMMISSIONERS
OF DOUGLAS COUNTY, OREGON

Doris Wadsworth

Doris Wadsworth, Chairman

Joyce Morgan

Joyce Morgan, Commissioner

Doug Robertson

Doug Robertson, Commissioner

H:rdm:LR1
RSBGARPT.ORD

TTACHMENT B

RECEIVED
JAN 13 1993
DOUGLAS COUNTY
PLANNING DEPARTMENT

002.000 340

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, OREGON

1992 JUL -8 PM 4:12
GAY FIELDS
DOUGLAS COUNTY CLERK

AN ORDINANCE ADOPTING THE DRAINAGE MASTER PLAN AND DESIGN STANDARDS OF THE CITY OF ROSEBURG/DOUGLAS COUNTY DRAINAGE MANAGEMENT PLAN AND AMENDING THE SUPPLEMENTAL STANDARDS TO INCLUDE DRAINAGE REQUIREMENTS.	ORDINANCE NO. 92-7-1

Liber 212 PAGE 01

RECITALS

A. The City of Roseburg and Douglas County entered into an intergovernmental agreement to jointly develop a storm drainage management plan for lands within the Roseburg Urban Growth Boundary.

B. The City of Roseburg has adopted the Drainage Master Plan (Exhibit A) and the Design Standards (Exhibit B) of the City of Roseburg/Douglas County Drainage Management Plan and recommends the Plan be adopted by the Douglas County Board of Commissioners.

C. The Douglas County Planning Commission has reviewed the Roseburg/Douglas County Drainage Management Plan and recommends the Plan to the Douglas County Board of Commissioners with amendments (those necessary to implement drainage requirements) to the Standards Supplement, which is an attachment to the Roseburg/Douglas County Urban Growth Management Agreement (Exhibit C).

THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY ORDAIN AS FOLLOWS:

Section One: The "Drainage Master Plan" (Exhibit A) and "Design Standards" (Exhibit B) of the City of Roseburg/Douglas County Drainage Management Plan, and amendments to the Standards Supplement (Exhibit C) ARE ADOPTED and by reference made part of this ordinance.

Section Two: The Drainage Management Plan and amendments to the Standards Supplement are necessary and appropriate and shall become effective on August 7, 1992.

Dated this 8th day of July, 1992.

BOARD OF COUNTY COMMISSIONERS
OF DOUGLAS COUNTY, OREGON

ABSENT

Doris Wadsworth, Chairman

Joyce Morgan

Joyce Morgan, Commissioner

Doug Robertson

Doug Robertson, Commissioner

TH:gem:LR1
RBGSTDR.ORD

ATTACHMENT C

ORDINANCE NO. 2819

AN ORDINANCE AMENDING THE ROSEBURG COMPREHENSIVE PLAN AND ADDING SUPPLEMENTARY PROVISIONS.

WHEREAS, the Roseburg Urban Area Comprehensive Plan as adopted by Ordinance No. 2345 and it has been amended from time to time; and

WHEREAS, Roseburg Land Use and Development Ordinance No. 2363 establishes procedures for hearing comprehensive plan amendments; and

WHEREAS, the Planning Commission has held a public hearing after due and timely notice, and

WHEREAS, the City Council hereby finds that the following plan policies are adopted as supplements into the Roseburg Urban Area Comprehensive Plan:

(a) The bikeway alignments and categories designated on the Roseburg Bikeway Plan map extend along those streets, roads and paths from the City limits, through the UGA and connect with the County's designated bikeways at the UGB (Exhibit A). The extension of these routes and the designation of the categories will be reevaluated and included at the next update of the Roseburg Area Bikeway Plan.

(b) The Rifle Range Road - Alameda Street connection is a proposed route for a minor collector. This route will be evaluated for inclusion in the Roseburg Area Master Transportation Plan at the next update of that Plan.

(c) The City and County shall coordinate the development and co-adoption of a Traffic Circulation Plan for the Roseburg UGA.

(d) During the administration of land divisions in the Roseburg UGA, the County shall be authorized to require future right-of-way through dedication or a irrevocable offer to dedicate.

NOW, THEREFORE, THE CITY OF ROSEBURG ORDAINS AS FOLLOWS:

SECTION I. The City Council hereby adopts this ordinance as its own, supporting the Planning Commission's recommendation that the ordinance be adopted.

SECTION II. The City of Roseburg Comprehensive Plan is hereby amended by applying the following and to include the above listed policy supplements.

PASSED BY THE CITY COUNCIL THIS 25 DAY OF January, 1993.

APPROVED BY THE MAYOR THIS 25 DAY OF January, 1993.

Jeri Kemmel
MAYOR

ATTEST:

Sheila D. Murphy
CITY RECORDER

ORDINANCE NO. 2819 (3A:ORDINANC)

Planning

93 FEB 11 AM 10:56

GAY FIELDS
DOUGLAS COUNTY CLERK

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, OREGON

AN ORDINANCE ADOPTING AMENDMENTS TO THE ROSEBURG COMPREHENSIVE PLAN, AS A RESULT OF PERIODIC REVIEW, TOGETHER WITH SUPPLEMENTAL POLICIES)	ORDINANCE NO. 93-2-2

RECITALS

A. The City of Roseburg and Douglas County entered into an Urban Growth Management Agreement (UGMA) to jointly manage lands within the Roseburg Urban Growth Boundary.

B. The City of Roseburg was notified by Land Conservation and Development Commission to amend its Comprehensive Plan through the Periodic Review process.

C. The City of Roseburg has adopted the Periodic Review of the Roseburg Comprehensive Plan with supplemental policies (Exhibit A) and recommends the Plan and supplements be adopted by the Douglas County Board of Commissioners.

D. The Douglas County Planning Commission has reviewed the Periodic Review of the Roseburg Comprehensive Plan and supplemental policies and recommends both to the Douglas County Board of Commissioners.

THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY ORDAIN AS FOLLOWS:

Section One: The amended Roseburg Comprehensive Plan, as a result of Periodic Review, and supplemental policies (Exhibit A) ARE ADOPTED and by reference made a part of this ordinance.

Section Two: The amended Roseburg Comprehensive Plan and supplemental policies are necessary and appropriate and shall become effective on March 12, 1993.

Dated this 10th day of February, 1993.

BOARD OF COUNTY COMMISSIONERS
OF DOUGLAS COUNTY, OREGON

Joyce Morgan

Joyce Morgan, Chairman

Doug Robertson

Doug Robertson, Commissioner

Doris Wadsworth

Doris Wadsworth, Commissioner

TH:gem:LR1
RBFSTDR.ORD

CERTIFICATION

STATE OF OREGON)
)
COUNTY OF DOUGLAS) ss
)
CITY OF ROSEBURG)

I, George C Stubbert, the duly appointed, qualified and acting Recorder of the City of Roseburg, Oregon, do hereby certify that I have compared the attached with the original of Ordinance No. 2345 and that it is a full and true copy of said ordinance as the same was adopted by the Common Council of said City on March 22, 1982.

re: Comprehensive Plan

George C Stubbert, City Recorder

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COMPREHENSIVE PLAN

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INTRODUCTION

ROSEBURG URBAN AREA

COMPREHENSIVE PLAN

INTRODUCTION TO THE ROSEBURG URBAN AREA COMPREHENSIVE PLAN

The Roseburg Urban Area Comprehensive Plan is a long-range general policy guide in which the City of Roseburg and Douglas County jointly set forth major policies concerning desirable future growth over the next two decades. Being comprehensive, its scope extends to physical, social, economic, administrative and fiscal matters. Being general, it summarizes policies and proposals rather than indicates specific locations or detailed regulations.

The Comprehensive Plan is not intended to provide answers to all the questions which arise from the growth and development of the urban area. Zoning ordinances, official maps, and subdivision regulations are designed to provide specific and detailed standards for the implementation of the Plan's general policies. Capital improvement programs and their accompanying budgets and special purpose regulations are also tools meant to effectuate the Comprehensive Plan. The Plan indicates broad categories of land use throughout the urban area, whereas the detailed instruments delineate boundaries and specify regulations, timing, procedures and costs.

Through the Comprehensive Plan, the City of Roseburg and Douglas County jointly consider and agree upon a coherent, unified set of general and long-range policies for the physical, social and economic development of the community. By focusing on the formulation of general policies, it provides a framework for the involvement of both the legislative body and the public in the planning process. Thus, an opportunity is created for public discussion of the key issues facing the community. In this capacity, the Plan facilitates the clarification of ideas, on the part of both the local legislative body and the public, with regard to the type of community they are trying to create by their many specific decisions. Policies, both explicit and implicit, are brought out into the open to insure their determination through democratic processes.

The Planning Process

Roseburg adopted its first Land Use Plan in.1965 in response to the rapid growth experienced during the previous decade. However, within a very short time it became evident that a plan formulated in response to growth fell short of addressing the more important issue of preparing for and guiding future growth. Subsequently, the City adopted its first Comprehensive Plan in 1973. The Comprehensive Plan contained an analysis of past trends shaping growth and identified goals and objectives for guiding future development. As adopted in 1973, the Comprehensive Plan was intended to serve as a general guideline for policy-makers to consider when making land use decisions. Since its adoption, two significant factors have developed which significantly altered the purpose and function of the Comprehensive Plan. In 1973 the Oregon Supreme Court ruled that local comprehensive plans were not simply general guidelines for land use decisions, but rather a legislative policy statement upon which all land use decisions must be based. The result was that "recommended standards" contained in the City's Comprehensive Plan were suddenly given the mandatory status of law to which all other regulations (zoning, subdivision standards, etc.) were subservient.

During the same year, an even more significant development occurred affecting local land use planning. The 57th Oregon Legislative Assembly created the Land Conservation and Development Commission (LCDC) via the 1973 Land Use Act. The Act, also known as Senate Bill 100, directed LCDC to formulate and adopt statewide goals and guidelines. The resultant 14 goals and guidelines were adopted by the Commission on December 27, 1974. The legislation which requires all cities and counties in Oregon to adopt comprehensive plans which conform to the statewide goals is codified in ORS Chapter 197.

Early in 1978 the City conducted an in-depth evaluation of the 1973 Comprehensive Plan in order to determine its degree of compliance with the statewide planning goals. The evaluation concluded that a major revision of the entire plan would be required to adequately address the requirements of the fourteen applicable statewide planning goals.

By mid 1979 the City had developed a program for the formulation of a new comprehensive plan designed to meet the needs of the community while also fulfilling the requirements of the statewide goals. A nine member Citizens Advisory Committee was appointed by the City Council to serve as the primary comprehensive plan formulating body.

Over a period of eighteen months the Citizens Advisory Committee, with technical staff assistance, drafted the new Roseburg Urban Area Comprehensive Plan, which was subsequently presented to the Roseburg Planning Commission in February of 1981 for the purpose of conducting public hearings and acquiring citizen input prior to adoption by the City Council.

Technical Support Document

This technical support document, together with supporting maps and other materials, represents the culmination of the Citizens Advisory Committee's comprehensive analysis of the Roseburg urban area. The committee conducted in-depth studies of the many subject areas required to produce a truly comprehensive plan. The subject areas that were considered include Housing, Population, Public Facilities and Services, Transportation, Economics, Parks and Recreation, Historic Preservation, Natural Resources, Energy Conservation, and Land Use and Urbanization. An in-depth analysis of each of the subjects is contained within this document. Although each of the major subjects is addressed in separate elements, or chapters of the technical support document, every attempt was made to insure that each element is coordinated with all other elements of the Plan. Each element is concluded with a summarized listing of the major findings of the committee with respect to the element, as well as the assumptions drawn from those findings. Based upon the findings and assumptions, a set of goals, objectives and policy statements were developed for each of the respective Plan elements.

Once adopted, this document will be the official statement of the City of Roseburg and Douglas County; setting forth the major goals and policies which will

guide the future physical, economic and social development of the community. More specifically, the Plan provides the overall framework for the following functions. The Plan:

1. Guides all governments and agencies in the urban growth area in developing and implementing their own activities which relate to the public planning process.

2. Establishes the policy basis for a general, coordinated long-range approach among affected agencies for the provision of the facilities and services needed in the urban growth area.

3. Makes planning information available to assist citizens to better understand the basis for public and private planning decisions and encourages their participation in the planning process.

4. Provides the public with guidelines for individual planning decisions.

5. Assists citizens in measuring the progress of the community and its officials in achieving the Plan's goals and objectives.

6. Provides continuity in the planning process over an extended period of time.

7. Establishes a means for consistent and coordinated planning decisions by all public agencies and across jurisdictional lines.

8. Serves as a general planning framework to be augmented as needed by more detailed planning programs to meet the specific needs of the community.

9. Provides a basis for public decisions for specific issues when it is determined the Plan, without refinement, contains a sufficient level of information and policy direction.

10. Recognizes the social and economic effects of physical planning policies and decisions.

A document of this nature is of such importance, and its influence of the decision-making process of such magnitude, a precise understanding of its intent is essential. Accordingly, the following concepts are defined:

GOAL: A broad statement of philosophy that describes the desires of the people of the community for the future of the community. Achievement is usually attained only by prolonged effort and may not be measurable in a definitive way.

OBJECTIVE: An obtainable target that the community attempts to reach in striving to meet a goal. An objective may also be considered as an intermediate point that will help fulfill the overall goal.

POLICY: A principal, plan, or course of action that is directed toward the achievement of identified goals. Policy statements are intended to be instructive and directional in nature. Upon adoption of the Plan, a policy commits the City and the County to the principal plan, or course of action, set forth in the policy statement.

In addition, it is important to recognize that the written text of the Plan takes precedence over the Land Use Map where apparent conflicts or inconsistencies exist. The Land Use Map is a generalized map which is intended to graphically reflect the broad goals, objectives and policies. As such, it cannot be used independent from or take precedence over the written portion of the Plan.

Relationship to Other Plans and Policies

While the Roseburg Urban Area Comprehensive Plan is the basic guiding use policy document, it is not the only such document. As previously stated, the Comprehensive Plan is a framework plan and it is important that it be augmented by

more detailed refinement plans, programs, and policies. Due to budget limits and other responsibilities, all such plans, programs and policies cannot be pursued simultaneously. Normally, however, those of an urban area-wide scale should receive priority status. Refinements to the Comprehensive Plan can include specific neighborhood or community plans; special purpose of functional plans such as water, sewer or transportation plans; or planning related policies. In all cases, the Comprehensive Plan is the guiding document, and refinement plans and policies must be consistent with the Comprehensive Plan. Should inconsistencies occur, the Comprehensive Plan is the prevailing policy document.

Relationship to Statewide Planning Goals

As required by state law, the Roseburg Urban Area Comprehensive Plan has been developed in accordance with the statewide planning goals adopted by the State Land Conservation and Development Commission and published in April, 1977.

These goals provide the standards and set the framework for the planning programs of all governmental bodies in the urban area. The Roseburg Urban Area Comprehensive Plan addresses each of the applicable LCDC Goals (as well as local goals) and contains objectives arid policy statements aimed at compliance with the LCDC Goals.

Amendments or revisions of the Plan must be found to be in compliance with the Statewide Planning Goals.

STATEWIDE PLANNING GOALS
ADOPTED BY THE
LAND CONSERVATION AND DEVELOPMENT COMMISSION

Goal I - Citizen Involvement

To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

Refer to Citizen Involvement Element.

Goal 2 - Land Use Planning

To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.

Refer to Land Use and Urbanization Element.

Goal 3 - Agricultural Lands

To preserve and maintain agricultural lands

Refer to Natural Resources Element and Land Use and Urbanization Element

Goal 4 - Forest Lands

To conserve forest lands for forest use

Refer to Natural Resources Element

Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources

To conserve open space and protect natural and scenic resources

Refer to Natural Resources Element, Parks and Recreation Element, Historic Preservation Element, and Land Use and Urbanization Element

Goal 6 - Air, Water and Land Resources Quality

To maintain and improve the quality of the air, water and land resources of the state

Refer to Natural Resources Element, Public Facilities and Services Element, and Land Use and Urbanization Element

Goal 7 - Areas Subject to Natural Disasters and Hazards

To protect life and property from natural disasters and hazards

Refer to Natural Resources Element and Land Use and Urbanization Element

Goal 8 - Recreational Needs

To satisfy the recreational needs of the citizens of the state and visitors

Refer to Parks and Recreation Element

Goal 9 - Economy of the State

To diversify and improve the economy of the state

Refer to Economic Element

Goal 10 - Housing

To provide for the housing needs of the citizens of the state

Refer to Housing Element and Land Use and Urbanization Element

Goal 11 - Public Facilities and Services

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

Refer to Public Facilities and Services Element

Goal 12 - Transportation

To provide and encourage a safe, convenient and economic transportation system

Refer to Transportation Element

Goal 13 - Energy Conservation

To conserve energy

Refer to Energy Conservation Element

Goal 14 - Urbanization

To provide for an orderly and efficient transition from rural to urban land use

Refer to Land Use and Urbanization Element

Periodic Review

Periodic review of the Plan shall be jointly conducted by the City and County on a regular basis, not more frequently than every three years but at least every five years, in order to ensure that the Plan is kept current and relevant and that changes of circumstances are duly accounted for.

Should extreme changes occur which would have a major impact on the appropriateness and applicability of the Plan, such as extreme population shifts or sudden major natural or man-made disasters, the Plan may be reviewed on a more frequent basis.

Procedures for periodic review shall conform to applicable policies of the Plan and Urban Growth Management Agreement, and also any periodic review regulations adopted by the State of Oregon.

The Committee for Citizen Involvement (Planning Commission) shall ensure appropriate citizen involvement in the Plan review process and shall reconvene the Citizens Advisory Committee. The Planning Commission and Citizen Advisory Committee shall jointly conduct the plan review and the development of necessary amendments of additions for recommendation to the City Council and Douglas County.

Periodic review of the Plan shall include at least the following:

1. Development of new basic information and statistical data.

2. Review and test validity of existing findings and basic research information and statistical data.

3. Testing of projections and assumptions and establishing new projections and assumptions.

4. Reevaluation and possible changes or modifications of basic concepts, goals and policies.

5 Evaluating, the means of implementation and their effectiveness and proposing changes of the establishing of new implementation techniques.

6. Public hearing(s) by the planning commissions and governing bodies on all recommended additions and amendments of alterations to the Plan.

Plan Amendments

- Plan amendments shall be processed according to procedures established by the Urban Growth Management Agreement between the City and County and any applicable ordinance provisions.

- Major Plan amendments, those which would have a widespread and significant impact on the community, should be considered as much as possible within the context of a periodic review process.

CITIZEN INVOLVEMENT ELEMENT

URBAN AREA

ROSEBURG

COMPREHENSIVE PLAN

CITIZEN INVOLVEMENT ELEMENT

Active, ongoing and meaningful citizen involvement is an essential ingredient to the development and implementation of any successful planning program. Citizens in the Roseburg urban area have participated in, and articulated their concerns on, planning activities and decisions as individuals and through various private interest groups, community and neighborhood organizations and citizen advisory committees.

A citizens advisory committee was established for the 1973 Comprehensive Plan and was an integral part of that plan's development. The adopted 1973 Comprehensive Plan-recommended that citizen advisory committees continue their active participation in the implementation phase of the city's planning program. Unfortunately, that recommendation was never implemented.

In recent years, planning advisory committees have also been established through Douglas County's citizen involvement program. Three such County committee areas lie partially within the Roseburg Urban Growth Boundary; Roseburg PAC, North Roseburg PAC, and Dixonville PAC.

Emphasis on citizen participation in the planning process has been recognized at the state level as well. The Land Conservation and Development Commission adopted citizen involvement as a mandatory statewide planning goal. The City of Roseburg, in accordance with LCDC's Citizen Involvement goal, has established a citizen involvement program and has appointed a Citizens Advisory Committee whose responsibilities include developing, monitoring and evaluating the Roseburg Urban Area Comprehensive Plan.

The objective of Roseburg's Citizen Involvement Program is to insure that the citizens of the, Roseburg urban area have an opportunity to be involved in all phases of the planning process. The program outlines the overall framework through which citizen input will be solicited, and specifies the responsibilities of the City Council, the Planning Commission and the Citizens Advisory Committee in developing and implementing the City of Roseburg.

Citizen Involvement Program

The Citizen Involvement Program is established and shall provide for the following:

1. The opportunity for citizen participation in all phases of the comprehensive land use planning process by extending to all citizens and civic organizations of the Roseburg urban area, all agencies of the county, state and federal government and to special districts the opportunity to assist in the following matters:
   a. The formulation and development of plans, maps, surveys inventories, or other documented elements of the planning process;
   b. The determination of public goals and policy guidelines incorporated into the Comprehensive Plan; and
   c. The review, evaluation, or recommendation of change regarding any land conservation and development action, including adoption, implementation, revision, or evaluation of comprehensive plans and ordinances.

2. The use of newspaper, mailing, and meetings and other locally available media to communicate land use planning information between the governing body and all citizens, civic organizations and governmental agencies.

3. Technical information and any findings of fact and rationale employed in planning policy decision making shall be made available in a form understandable to citizens. Such information shall be made available through the Roseburg Planning Department.

4. Providing, through the Roseburg Planning Department, assistance in interpreting any of the inventory or technical information and data for citizens.

5. Retaining and making available for public review at the Roseburg Planning Department recommendations made by citizens, civic organizations or governmental agencies together with appropriate responses.

6. Provide through grants, budgeting or contributions adequate resources and financial support, as available, to carry out the tasks of the Citizen Involvement Program.

The Citizen Advisory Committee

The Citizens Advisory Committee (C.A.C.) is appointed by the Mayor and the City Council to perform a liaison role with the citizens of the community. Its purpose is to provide a mechanism to solicit and incorporate views and opinions from the community relating to planning activities and revisions of the Comprehensive Plan.

The Citizens Advisory Committee shall be active in plan preparation, review of technical information and making plan policy recommendations on all areas of the Comprehensive Plan. The C.A.C. shall be involved in inventorying, mapping and recording land use classifications throughout the urban area.

The intention is to have the Citizens Advisory Committee continue to function on an ad hoc basis to periodically review and make recommendations on the Comprehensive Plan.

Planning Commission

The Planning Commission advises the City Council on land use related matters and specifically:

1. Coordinates the activities of the Citizens Advisory Committee in the formulation or amendment of the Comprehensive Plan.

2. Holds public meetings and hearings.

3. Assures general public input on formulation of alternatives prior to the proposal of policies and recommendations to the City Council for adoption.

4. Analyzes citizen and staff input from an urban area wide point of view and recommends the Comprehensive Plan to the City Council for adoption.

5. Prepares or has prepared information necessary to citizens to understand the plan and the basis for it.

6. Reviews and recommends revisions and amendments to the Comprehensive Plan.

City Council

The City Council adopts the Comprehensive Plan through public hearings and public input received through the Citizen Involvement Program. The Comprehensive Plan is a set of legislative policies for the City and is used as a guide to City actions. The City Council, as the legislative body of the City, has the basic authority and responsibility for setting City policy.

The Planning Commission (which has been designated as the Committee for Citizen Involvement or C.C.I.) and other groups advise the Council and draft recommendations for its consideration. The Council has the final authority to decide which recommendations actually become law or policy. The City Council shall:

1. Initiate the planning program;
2. Require adherence to the Citizen Involvement Program;
3. Consider public input;
4. Hold public hearings;
5. Adopt the Comprehensive Plan; and
6. Assure the necessary regulatory means and funds to implement the Citizen Involvement Program and the, Comprehensive Plan.

Evaluation

This Citizen Involvement Program will be reviewed concurrently with the Comprehensive Plan at the time of periodic review. The Planning Commission will continue as the Committee for Citizen Involvement and will coordinate review and evaluation of the Comprehensive Plan and Citizen Involvement Program.

POPULATION ELEMENT

URBAN AREA

ROSEBURG

COMPREHENSIVE PLAN

POPULATION ELEMENT

Introduction

At all stages of the planning and decision-making process, adequate population information is a major component in determining impacts. The characteristics of the present and future population in relation to the economic activity of the community will determine the needs of virtually everything--housing, stores, jobs, streets, sewers, schools, etc. Every comprehensive planning effort must, therefore, begin with an assessment and an understanding of the community's population--its size, make-up, and growth rate.

The objective of this population element is to present information which will contribute to a better understanding of the character of Roseburg's population and the trends which are, to some degree, predetermining the community's future. The interrelationship between population and the overall planning process suggests significant implications for Roseburg's future.

Growth Factors

The relationship between economic opportunities and population size has been a major factor in the increasing concentration of the population in the Roseburg area. Employment seekers gravitate to areas offering jobs. In turn, the added population stimulates further economic activities which attract even more people. Where employment opportunities are limited the population is not likely to increase significantly and may even decrease over time.

Job opportunities are only one factor, however, in the propensity of people to relocate. Recently, especially since 1970, growth rates in the County must be explained by other factors, such as the attraction associated with the quality of living environment. With growth from people seeking an improved living area, economic diversification has been brought about. Losses in employment in the forest products industry have been offset by gains in other manufacturing sectors. In addition, some of these in-migrating

people are retirees. Their influence on the economy is also felt through purchasing of consumer goods, housing and services.

Impacts

Greater concentration of population in an area adds to the cost of providing essential services, whether by expanding existing services or completely revamping services to meet the needs of the larger population. Competition for housing and location adds further costs by driving up the price of housing and building sites. The increased demand for developable land for homes, businesses and industrial facilities effect other local economic potentials through the conversion of prime farm land and other resource land to non-productive uses.

Location and type of development which is in response to growth depends on numerous other factors, some of them obstacles. Much depends on the location and continued supply of basic resource materials, sources of power, transportation facilities, cost of transportation, availability of adequate water supplies, the need to construct new sewage treatment facilities, impact on the ecology of the area, climatic conditions, and a host of factors of a more social nature, such as the preference for nearness to major shopping or entertainment centers.

A growing population creates the need to expand police and other protective services. As the concentration of the population increases, so do traffic problems. With the population growth also comes a higher incidence of crime and delinquency.

Expanded population also brings the need to safeguard the water supply and maintain acceptable sanitary conditions. Numerous cities, including Roseburg, have discovered that their future growth is hampered by the uncertainty of the means for providing such services.

The increasing concentration of the population in the Roseburg area, accompanied by an expansion of urbanization and motorized transportation, have greatly increased abuses to the area's environment. At the same time, more people

have become concerned about the effects of such activities on their present and future health and welfare. The demand to provide for a growing urban area population coupled with an increasing awareness and desire for high environmental quality seems to be a certainty for the future.

The various interrelation of population growth and other elements which go together to make up the kind of city Roseburg is today (and the kind of city it will be in 20 years) serve to illustrate the significance of prefacing this Comprehensive Plan with the Population Element.

The basic data from which the Population Element was derived are federal census reports which, in turn, are based on nationwide censuses taken every ten years. Supplemental data for selected years between the ten-year federal reports were drawn from various other sources.

The element's results are illustrated in both tabular and graphical form at a level determined to be useful for analysis or at a detail limited by sources of data.

Various events and trends in earlier times contributed to the development of conditions which brought about the more recent changes which have shaped Roseburg into the community we know today. Knowledge of these past events and trends is essential to any attempt to understand the social and economic forces which will shape our future.

THE PAST

Artifacts and other traces of ancient peoples found in the Roseburg area suggest the presence of inhabitants as far back as 12,000 years. Archeological evidence, while very scanty, supports the theory that these earliest visitors to the area were nomadic game hunters whose origin was probably as far east as the Rocky Mountains.

Further archeological finds help sketch a picture which suggests that over a period of some ten to twelve thousand years these earliest inhabitants gradually became less nomadic, integrated small bands of big game hunters into larger groups, developed or adapted more specialized tools, and generally settled down to a more sedentary life along the banks of the rivers which bear their name.

The river was a primary food source for the Umpquas, providing the natives with large catches of Salmon during the fall and spring months of each year. Camus bulbs and other edible roots, as well as various wild nuts and berries rounded out the diet. During times when Salmon were not migrating up the Umpqua, small game provided a source of protein.

It has been estimated that the four Anthopascan tribes found in the area (Dakubetede, Nahankhotane, Taltushtuntude and Umpqua) numbered around 3200 in 1780, before the smallpox epidemic. However, the first "official" census of the local native population did not occur until 1849 when then Territorial Governor Joseph Lane, in his ex-officio capacity as Superintendent of Indian Affairs for Oregon reported to the Commissioner in Washington, D.C.: "The Umpqua Indians occupy a valley of that name and are much scattered. They live in small bands, are poor, well disposed, well armed, and live by the chase, as also on fish, roots, etc. They number about 200.11

The Umpqua Indians of central Douglas County enjoyed a reputation for friendliness to the white trapper, traders and explorers, as contrasted by the conflicts between the white men and the Rogues or "Rascals" as they were called, in the Rogue River Valley. The Umpquas occupied a section of the Territory which was little traveled in the early part of the last century. The Hudson Bay Company maintained a post at Fort

Vancouver and dispatched traders to all points from there to trade with the Indians for pelts of beaver and otter. These first traders were the Indian’s only contact with whites at that time. The Hudson Bay Company later established a post on the Umpqua River at Elkton.

Considering that the non-Indian population of the entire Oregon Territory in 1840 numbered approximately 200, it is not surprising that white men were a novelty to the natives. Missionaries and other settlers of that period lived mainly in the upper Willamette Valley.

During the 1840's several immigrant parties passed through the Umpqua Valley on their way to the Willamette region. In 1846 a party set out from the Willamette Valley under the leadership of Jesse Applegate to establish a road to the south. The party spent considerable time exploring the South Umpqua. Later the same year, Applegate led a large body of immigrants through the Umpqua region to the Willamette Valley. The party experienced considerable difficulty traversing the Calapooya Mountains between the Umpqua and Willamette Valleys and spent the winter of 1846-1847 in the Umpqua Valley.

In 1847, Levi Scott led a company of men southward on behalf of the newly created Oregon Territorial Legislature to improve the road, especially in the area about the mountains. The territorial legislature wanted the improvements made in preparation for an expected surge of immigration.

Settlers began moving into the Umpqua in increasing numbers from 1848 on.

Winchester, Payne and Company was formed in San Francisco in anticipation of settlement in the Umpqua Valley. Although the company's motives are obscure, it was probably a venture in land speculation. In 1850, members of the company shipped out in the Samuel Roberts to explore the Umpqua region. Among the passengers were two future Oregon governors, Addison C. Gibbs and Stephen F. Chadwick.

One member of the Winchester party, Addison R. Flint, a surveyor for the company, went up the Umpqua to the future site of Winchester, where he laid out a town on the banks of the North Umpqua. A year later, Flint returned to the area with his family and established a land claim on what is now the western part of the City of Roseburg.

Aaron Rose, who gave his name to the present site of Roseburg, also was one of its first settlers. In 1851, at the age of 36, Rose sold his farm in Coldwater, Michigan and journeyed westward with his family and arrived in the Umpqua Valley in the early fall. He and his wife immediately filed claim to a piece of land at the confluence of Deer Creek and the South Umpqua. Containing some 640 acres, Rose's elongated claim bordered the eastern side of the South Umpqua and stretched a considerable distance south.

Rose established a small business near where the City's central business district now is, and engaged in selling goods and supplies to the increasing number of settlers in the area.

On September 28, 1852, William Perry established a post office at Deer Creek and the place began to take on the characteristics of a town.

The rapid growth of the Deer Creek settlement brought into question the permanent location of a county seat in 1854, the territorial legislature provided for an election to determine the permanent location of a county seat for Douglas County. The Deer Creek settlement was selected and shortly after the election the name was changed to Roseburg.

Roseburg's acquisition of the county seat proved auspicious. The growing number of people in the new community expanded retail trade and created a need for professional services. The 1860 federal census reported 325 residents in Roseburg.

As in many western cities, population growth in the City of Roseburg has not been steady. The growth is illustrated in Chart P-1. From 1860 to 1880, Roseburg's

population nearly tripled to 966 residents and during the following 30-year period it more than quadrupled. However, by the time the 1930 census was reported, the city's population decreased from 4,738 to 4,362--a net loss of 317 persons. This reversal in the city's growth was the result of relocation of the main north-south rail route via Klamath Falls. As a consequence, Roseburg suffered a traumatic economic setback and it was not until the 1940s, when the lumber industry began its dramatic expansion that the city recovered. Accompanying the expansion of the wood products industry, the population of Roseburg increased from 4,924 in 1940 to 8,390 in 1950. The last U.S. Census, taken in 1970, placed Roseburg's population at 14,461.

The growth of Roseburg generally has been similar to that of Douglas County and Oregon as a whole. In all periods of major growth in the county and state, Roseburg has had comparable expansion. Similarly, Roseburg has had little or no growth during relatively static periods in the county and state. Tables P-1, P-2, and P-3 show the comparative growth of Roseburg, Douglas County, and Oregon from 1900 to 1978.

TABLE P-1
POPULATION GROWTH
ROSEBURG, DOUGLAS COUNTY, AND OREON
1900-1979

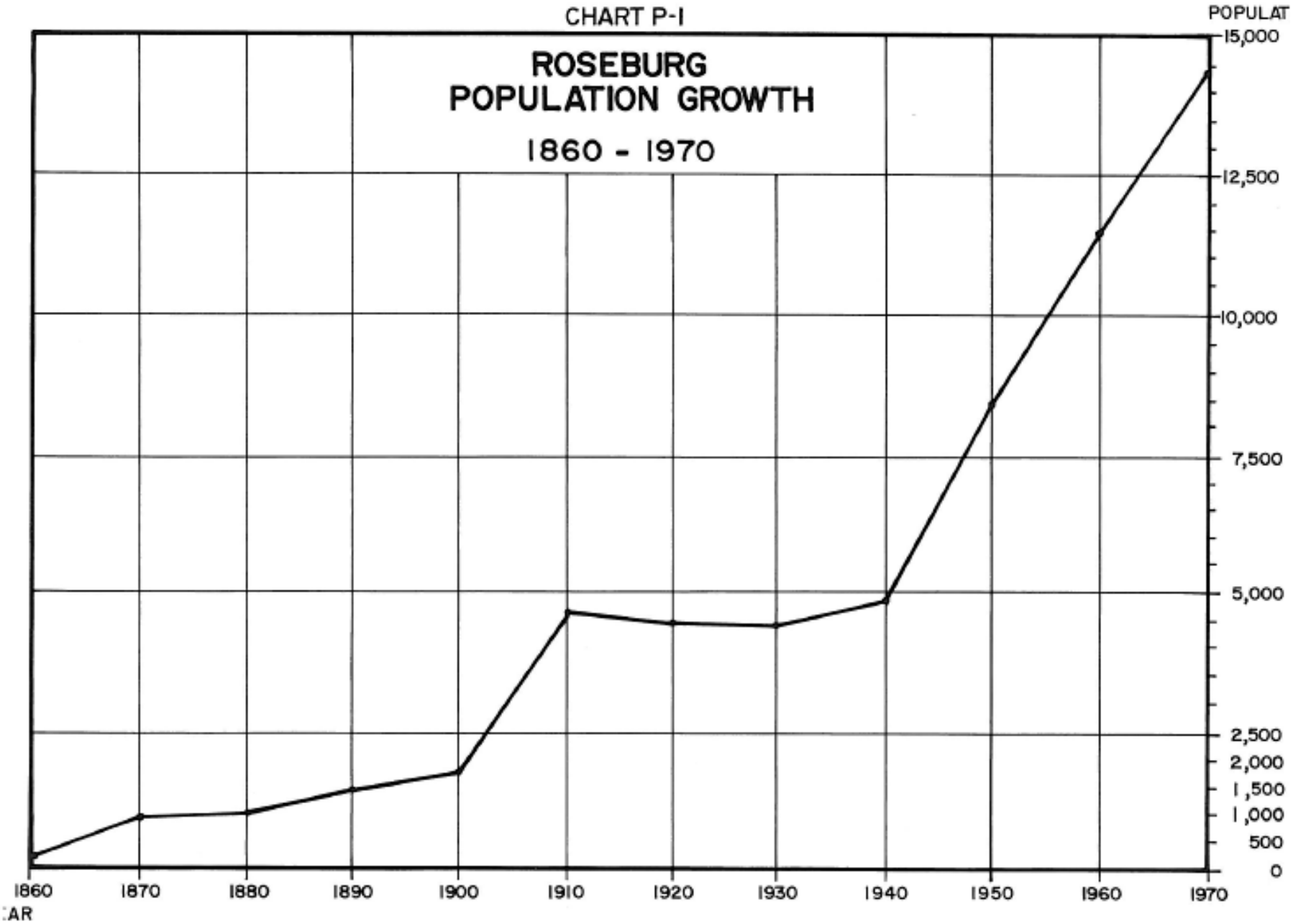
	1900	1910	1920	1930	1940	1950	1960	1970	1979
Roseburg	1,690	4,738	4,381	4,362	4,924	8,390	11,467	14,461	17,579
Douglas County	14,565	19,674	21,332	21,965	25,728	54,549	68,458	71,743	89,300
Oregon	413,536	672,765	783,389	953,786	1,089,684	1,527,341	1,768,687	2,091,385	2,544,000

TABLE P-2
PERCENT CHANGE IN POPULATOIN
ROSEBURG, DOUGLAS COUNTY, AND OREGON
1900-19679

	1900-1910	1910-1920	1920-1930	1930-1940	1940-1950	1950 1960	1960 1970	1970-1979
Roseburg	180.4%	-7.5%	-0.4%	12.9%	70.4%	36.6%	26.1%	21.5%
Douglas County	35.1	8.4	3.0	17.1	112.0	25.5	4.7	24.5
Oregon	62.7	16.4	21.8	14.2	39.6	16.2	18.2	21.6

TABLE P-3
RELATIVE POPULATION
ROSEBURG, DOUGLAS COUNTY, AND OREGON
1900-1979

	1900	1910	1920	1930	1940	1950	1960	1970	1979
Roseburg as a Percent of County	11.6%	24.1%	20.6%	19.8%	19.2%	15.4%	16.7%	20.0%	19.7%
Roseburg as a Percent of State	0.4	0.7	0.6	0.5	0.5	0.6	0.6	0.7	0.7
Douglas County as a	3.5	2.9.	2.7	2.3	2.4	3.6	3.8	3.4	3.5

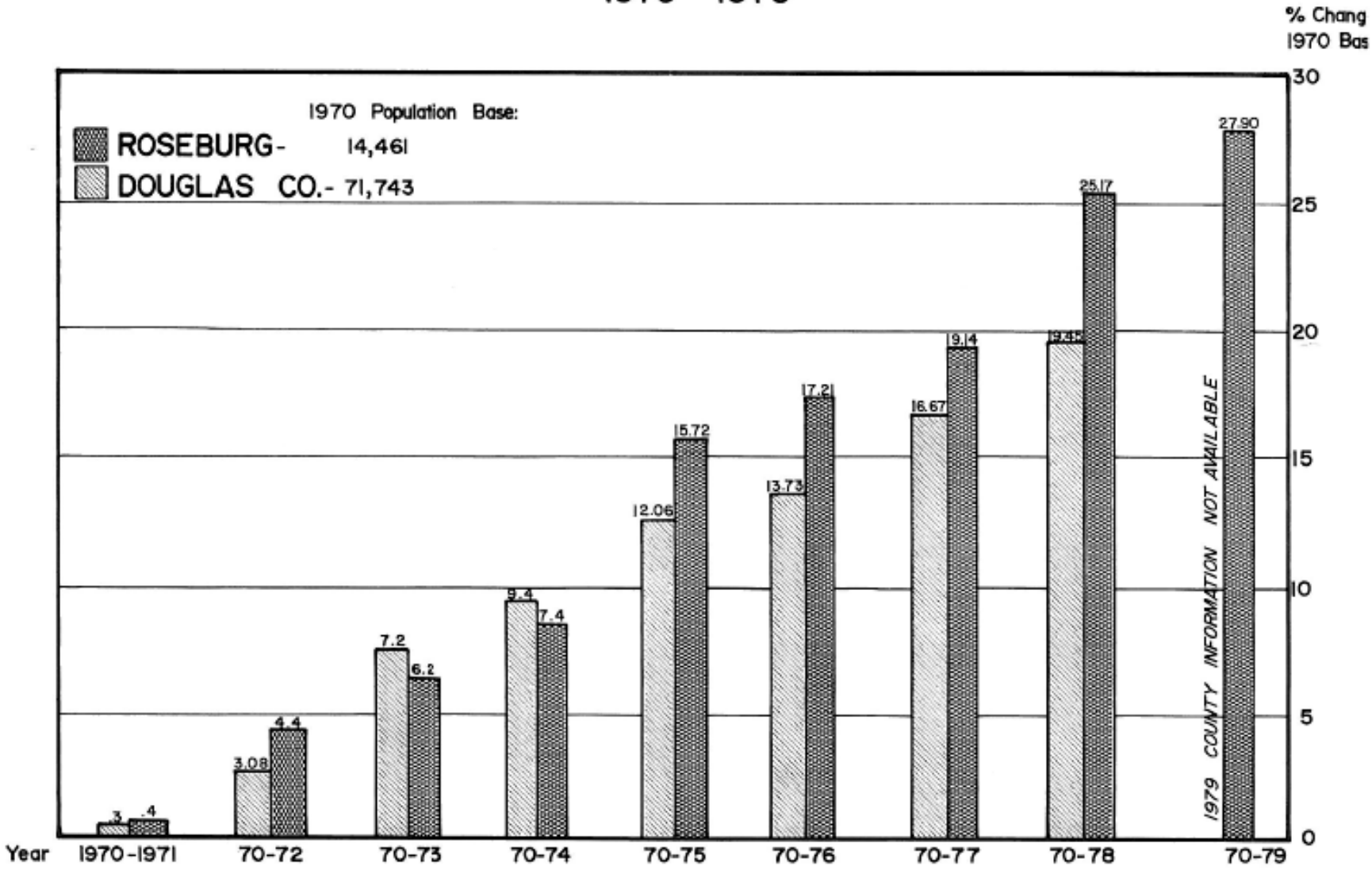


Source: U.S. Bureau of the Census

CHART P-2

PERCENT ROSEBURG/DOUGLAS COUNTY POPULATION GROWTH

1970 - 1979



Aaron Rose, the first permanent resident of Roseburg, is a good example of the migratory movement of settlers who made their home in the Umpqua Valley. Rose was born in New York State in 1815 and migrated to Michigan with his parents in 1837. Fourteen years later, at the age of 36, he took up his donation land claim on the South Umpqua. A brief glance at the population census for Douglas County in 1860, 1870, and 1880 shows many similar examples. However, in most cases the only information available is the individual's birthplace. Table P-4 serves to illustrate the origins of Roseburg's earliest settlers.

TABLE P-4
Last Place of Residence Before Settling in Roseburg

	% distribution by census region
New England	3
Mid-Atlantic	2
South Atlantic	1
East N. Central	29
West N. Central	31
East S. Central	1
West S. Central	2
West	31
	%100 No. 271

The percentage of Roseburg's population born in the New England, Mid-Atlantic, and South Atlantic regions declined from 32 percent in 1860 to 22 percent by 1880. Conversely, people born in the North Central region comprised only 36 percent of Roseburg's population, but by 1880 the majority of the population had originated from that area. Table P-4 also shows that by 1880 the number of people born in the West

had greatly increased. Undoubtedly, many of these came to Oregon from California. Some, of course, came to Roseburg from other communities in Oregon.

By 1880 the foreign-born population of Oregon numbered 31,503 or 17 percent of a total population of 174,768. In this same year a higher percentage of Roseburg's population was foreign-born; about 21 percent. The greater percentage of foreign-born in Roseburg by 1880 is largely the result of Chinese immigration between 1870 and 1880. Of the 48 foreign-born listed in the 1870 census, none are of Chinese origin, but by 1880 there were 36 Chinese in Roseburg. Table P-5 illustrates the percentage of foreign-born Roseburg residents by country-of-origin in 1880. These figures can be compared to the 1970 Census of Roseburg's foreign-born population as shown in Table P-6.

TABLE P-5
Origin of Foreign-Born Population of Roseburg in 1880

Country of Origin	Number	% of Foreign-Born Population
England, Wales, and Scotland	47	27%
Ireland	18	10
Germany	35	20
Canada	12	7
France	3	2
Switzerland	4	2
Scandinavia	0	0
China	36	21
Others	19	11
Total	174	100%

TABLE P-6
ORIGIN OF FOREIGN-BORN POPULATION OF ROSEBURG IN 1970

Country of Origin	Number	% of Foreign-born Population
United Kingdom	262	14
Ireland	66	3
Germany	307	17
Canada	344	19
Sweden	70	3
East European	184	10
Mexico	5	1
Italy	14	1
Others	551	31
TOTAL	1803	100%

Current Conditions

The last U.S. Census Bureau's Decennial Census of Population was taken in 1970. For some statistics, this represents the most recent data. Later figures on population characteristics are based on factors that have proven reliable in estimating population at a given time: births, deaths, school enrollment, income tax returns, voter registration, housing, known migration.

Many factors influence changes in population. Table P-7 shows some of the factors used to analyze the composition of a population.

In 1970 the average population density of Douglas County was 14.03 persons per square mile, while the City of Roseburg had a population density of 2,653 persons per square mile. Chart P-3 illustrates both the historic and projected ratio of the city's area and it's population size. Population figures from the 1980 census have not been officially reported at the date of publication of this Plan.

TABLE P-7
1970 CENSUS DATA

POPULATION CATEGORY	DOUGLAS COUNTY		ROSEBURG	
Total Population	71,743		14,461	
Male	35,965		7,133	
Female	35,778		7,321	
Non-White	298	(0.4%)	76	
Age 0-14	21,523	(29.8%)	3,772	(26%)
15-24	11,226	(15.6%)	2,377	(16.4%)
25-44	16,899	(23.4%)	3,321	(22.9%)
45-64	15,569	(24.8%)	3,231	(22.3%)
65 and older	6,526	(8.9%)	1,755	(12.1%)
Males 15 and Older	24,988		5,270	
Married			3,476	
Widowed			170	
Divorced			322	
Separated			72	
Single			1,356	
Females 15 and Older	25,232		5,414	
Married			3,415	
Widowed			774	
Divorced			315	
Separated			90	
Single			965	
Average Household Size				
Persons/Square Mile	14.1			

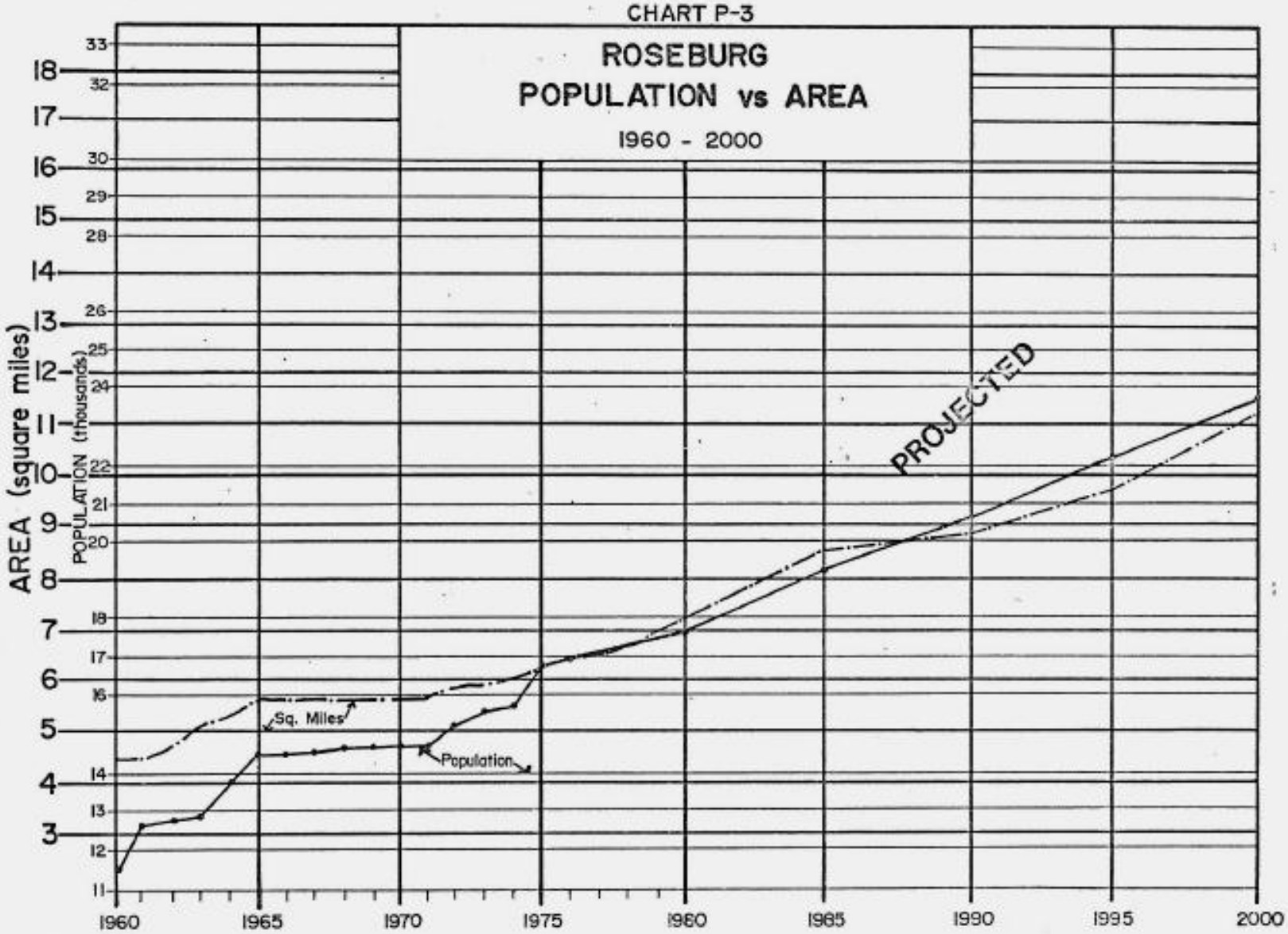


CHART P-3
ROSEBURG
POPULATION vs AREA
1960 - 2000
AREA (square miles)
POPULATION (thousands)
PROJECTED
Sq. Miles
Population
1960
1965
1970
1975
1980
1985
1990
1995
2000

The most current data available shows a December 31, 1979 certified county population of 89,300 for an average of 17.54 persons per square mile (5,089 square miles in Douglas County) and a city population of 17,579 for an average density of 2,287 persons per square mile (7.686) square miles in City of Roseburg). The city's decrease in population density is primarily the result of recent annexations of large areas of relatively low population density.

The 1970 census produced data regarding the makeup of households in the City of Roseburg. Table P-8 serves to illustrate the character of households in Roseburg at that time. More current data is not available.

TABLE P-8
1970 CENSUS DATA

		Number of Households	Percent of Total
Household size:	One person	990	20.5%
	Two persons	1,541	31.9%
	Three persons	799	16.5%
	Four persons	702	14.5%
	Five persons	458	9.4%
	Six or more	332	6.9%
	TOTAL	4,822	100%

Senior citizens, persons over 64 years of age, comprise less than ten percent of the county population. Nearly 25 percent of these people, however, reside in the Roseburg urban area. Between 1960 and 1970, the number of persons in the county age 65 and over increased over 20 percent, compared to an increase of only 4.7 percent for the entire population.

Population Projections

Population projections can be made using a variety of models and assumptions employing any one of several techniques. Several population projections have been devised for the Roseburg urban area by various agencies such as the Center for Population Research and Census at Portland State University, Umpqua Regional Council of Governments, Coos-Curry-Douglas Economic Improvement District, Bonneville Power Administration, and Pacific Northwest Bell. Population projections by some of these agencies are listed in Table P-9 and are graphically illustrated in Chart P-4.

TABLE P-9

Population Estimates for Roseburg Urban Area

Base	1980	1985	1990	1995	2000
PSU	28,427	31,367	33,608	35,267	37,415
CCD - High	27,462	28,993	31,062		
URCOG - High	29,459		35,237		40,707
URCOG - Low	27,813		30,031		33,492

There are four major techniques commonly employed to make population projections-mathematical, economic-employment, cohort analysis, and land use.

Mathematical models assume that components which describe population change in the past will continue for some time in the future. Mathematical models which extrapolate historical trends have the advantage of simplicity. They require very little data, but they neither explain the reasons for past growth nor account for possible future deviation from the established trend. For this reason, projections using linear and exponential growth (mathematical) models become less reliable as the time frame is expanded and are usually relied on for projections covering no more than five years.

While recognizing the inherent limitations of simple mathematical models, the current lack of detailed data has precluded the use of the more sophisticated methodologies.

To apply the linear extrapolation model to Roseburg's future, we must first identify the established trend. Table P-10 shows Roseburg's estimated population increase for each year from 1970 through 1979.

It should be noted that the annual Roseburg population increases shown on Table P-10 do not include growth attributed to annexations. That portion of the City's annual population growth which resulted from annexations has been counted as part of the unincorporated area population. This will prevent double counting of the annexed population.

The average annual real increase in population (minus annexations) from 1970 through 1979 is 245. The linear model then assumes that 245 will be the average real increase per year in the future, and a projection can then be made by multiplying the average annual increase (245) by the number of years desired. The product is then added to the 1979 base population and the sum is the projected population for the selected future year. It should be noted that the linear extrapolation model usually gives a conservative projection which can be used to establish a low range estimate.

Using the linear extrapolation model, the projected 1985 Roseburg population would be computed as follows:

1979 Base Population:	17,579
Average Annual Increase:	245
Number of Years Projected:	x 6
1985 Population Increase:	1,470 + 17,579 = 19,049

Therefore, a 1985 population projection for Roseburg might be 19,050.

CHART P-4
PROJECTED POPULATION GROWTH

ROSEBURG AND URBAN AREA

1980-2000

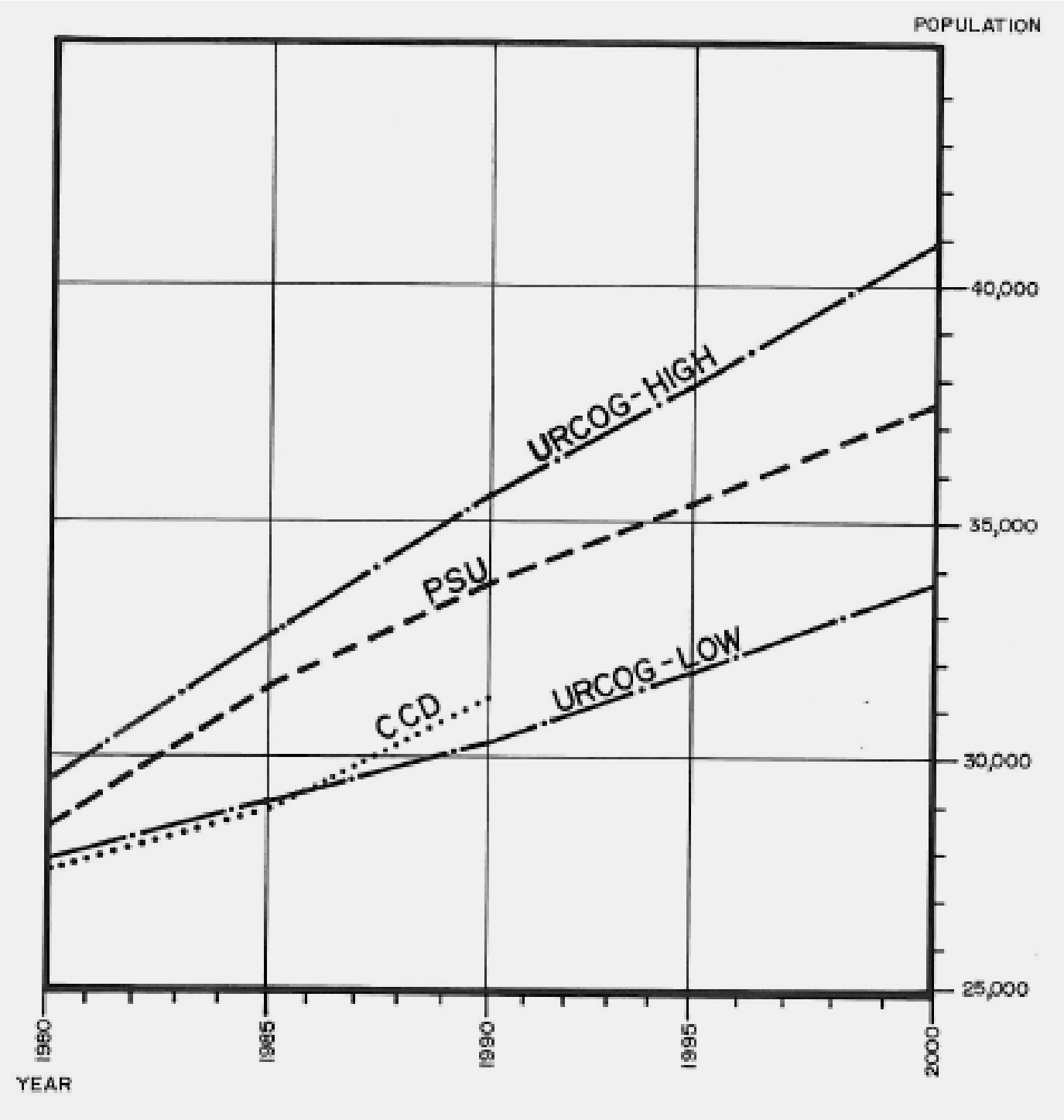


TABLE P-10
ROSEBURG ESTIMATED POPULATION INCREASE
1970 through 1979*

YEAR	POPULATION	POPULATION ANNEXED	POPULATION INCREASE MINUS ANNEXATIONS
1970	14,461		
1971	14,530		69
1972	15,095		565
1973	15,360		265
1974	15,530		170
1975	16,735	1200	5
1976	16,950		215
1977	17,230	1	279
1978	16,900	177	*
1979	17,579	283	396

*Source: Portland State University Center for Population Research and Census. In December 1979, PSU modified its method of estimating population. Revisions were only made back to 1978; therefore, it is not possible to calculate Roseburg's certified population increase between 1977 and 1978.

The second mathematical technique employed to project population is the exponential extrapolation model. Data collected over a period of time reveals that Roseburg's population has been increasing by an average percentage rate annually, thereby actually accelerating arithmetic growth.

Like the linear model, the exponential model is more reliable over shorter projection periods but maintains its integrity for longer range projections than does the linear model. Exponential models are commonly relied upon to project a more liberal or higher range estimate as compared to the lower range projection of the linear model.

The exponential extrapolation model is based on the average annual percentage change in population. During the period of 1970 through 1979, the city's average annual percent of real growth was 1.6 percent. Again, this does not include existing urban area population which was added to the City through annexation.

To compare the exponential projection against the previously computed linear projection, the year 1985 is again selected. The projection is made by multiplying the average annual percent of growth (1.6%) by the 1979 base year population of 17,579 and adding the product onto the base population to get the 1980 projection. The 1980 population is then multiplied by 1.6 percent and the product again added to the 1980 population to get the 1981 projection. The process is continued for as many years as desired.

Using the exponential extrapolation model, the projected 1985 Roseburg population is computed as follows:

1979 Base Population X 1.60 percent = New Growth + 1979 Base = 1980 population

(17,579)	X	(.016)	=	(281)	+	(17,579)	=	(17,860)		
					THEN,					
17,860	X	.016	=	286	+	17,860	=	18, 146		(1981)
					THEN,					
18,146	X	.016	=	206	+	18,146	=	18,436		(1982)
					THEN,					
18,436	X	.016	=	295	+	18,436	=	18,731		(1983)
					THEN,					
18,731	X	.016	=	300	+	18,731	=	19,031		(1984)
					THEN,					
19,031	X	.016	=	304	+	19,031	=	19,335		(1985)

Thus, the exponential projection for Roseburg's 1985 population might be 19,335. It should be noted that even over the relatively short time span of six years, there is a significant difference between the linear and exponential projections. This difference is about 285 persons or 1.5 percent over the 1979 population base. Probably the most reliable and realistic prediction of population growth lies somewhere between the linear low projection and the exponential high projection.

Since population and economic activity are very closely related, a number of population projection models have been developed which are based on expected economic and employment growth. Economic employment models are usually employed in situations where there are large migrations, economic information is well documented and fairly stable, and where there is a lack of other data. They are, however, reliable only when making short-term projections as the relationship between employment and population can shift rapidly. Finally, it should be noted that this method is not generally useful for, smaller cities such as Roseburg, as the people working in the city may not necessarily live there. For these reasons, it does not appear that the economic employment model can be used with any degree of reliability for Roseburg and the surrounding urban area.

One methodology commonly applied to smaller cities is the land use model which projects population on the basis of available land and population density. This type of projection reverses the process of projecting population growth and then determining what land will be needed. Instead, it begins with the amount of land available and then projects how many people can be accommodated. Given the total projected population growth for the city, that portion of the growth which will occur in the city may be determined by the land area available and pertinent density restrictions, such as zoning laws.

Unfortunately, the land use model is useful for cities that have adopted an urban growth boundary and specific growth management policies. While the model can be employed during the planning process to determine if an urban growth boundary (and the growth policies which go along with the boundary) will provide for a previously projected population, it cannot be used to project a population for an undefined area.

A demographic cohort-survival model is the only one that can be used in projecting population by both age and sex. The cohort-survival model divides the population by sex into cohorts, or groups of persons of the same age (0-5 years, 5-10 years, etc.). The model makes certain assumptions about future births, deaths, and gross in-migration and out-migration for each model. Taking a base, or benchmark, population, the cohorts are projected using fertility rates and net migration.

Since the cohort-survival model considers each component of population change separately (births, deaths, and net migration, each by age and sex), it is also relatively precise. Its one drawback is that it is particularly sensitive to fluctuations in migration, requiring large amounts of data not readily available for an area the size of Roseburg. The method works best for metropolitan regions or on a county-wide basis. In fact, the cohort-survival model was the principal model employed by Douglas County for projecting county-wide populations. Again, the cohort-survival model is not generally well suited to the Roseburg area.

All of the projection techniques described above provide at least rough estimates of future population; however, only the mathematical models are useful for projecting population for Roseburg, considering the size of the area involved, the size of the base population, and the limited amount of, data available. The land use model will be employed later in the planning process and, will be used to gauge proposed land use designations against the projected population.

Although the cohort-survival model is deemed the most comprehensive and accurate method of projecting population, a more comprehensive data base than is now available for the Roseburg area is prerequisite. It is anticipated that a cohort-survival model can be used during future periodic reviews of the Comprehensive Plan. Beginning in 1980, the national census will be taken every five years (the census is now taken once every ten years). This significant reduction in the time period between census counts will provide the data base necessary to employ the cohort-survival model and more reliable projections will be possible.

Projections must also account for growth in the unincorporated area outside the city limits as well as inside the city. Several factors represent barriers in an attempt to apply a common methodology to both the incorporated and unincorporated areas. First, it is difficult to detect trends in the unincorporated areas because official census counts do not correspond directly to the boundaries of the study area. Also, while annual building permit statistics are kept for the city, county building permit data for the unincorporated urban area is not segregated from data for the county as a whole,

making it necessary to rely on certain assumptions about building activity within the study area.

The urban area housing survey conducted by the City in January of 1980 provides the best source of data to estimate the current unincorporated area population. (See Housing Element.)

Although the 1980 housing survey was limited primarily to areas with urban-type services, it did account for about 95 percent of the urban area's housing stock.

Other population projections which attempt to define the "urban area" by artificial boundaries have proved unrealistic because they include vast areas of rural resource lands which will almost certainly be excluded from the urban growth area. Rural growth trends in these areas cannot be regarded as realistic indicators of future urban growth.

While the projection methodology employed here is limited to a geographic area encompassing about 95 percent of the urban areas current unincorporated population, it should not be viewed as an attempt to define the limits of the urban area.

To arrive at an unincorporated area population, accepted dwelling occupancy factors are multiplied by the known number of dwellings in the area. In December of 1979, the Center for Population Research and Census at Portland State University established average dwelling occupancy or household size factors for Roseburg. These average household size factors are as follows:

Single-Family Dwelling	= 2.77 persons/household
Mobile Home	= 2.57 persons/household
Multi-Family Dwelling	= 1.98 persons/household

The 1980 unincorporated urban area population is then computed as follows:

Type of Dwelling	No. of Dwellings		Average Household Size		Population
Single-Family:	1305	X	2.77	=	3,615
Mobile Home:	1020	X	2.57	=	2,621
Multi-Family:	689	X	1.97	=	1,357
TOTAL					7,593

Thus, the estimated 1980 unincorporated urban area population is 7,593.

Prior to projecting future growth, an indication of past trends must be established. To establish the past trend, county building permit data for 1975 through 1978 was used. As previously mentioned, there are inherent limitations to the use of this data, however, it is presently the only available means of estimating past growth in the unincorporated area.

Building permit data for the greater Roseburg area was segregated into two County Planning Advisory Sub-Areas: North Roseburg (unincorporated) and Roseburg (unincorporated). Much of the North Roseburg planning area extends into rural lands where relatively lower building activity is occurring. For this reason, only 80 percent of the building permits of the North Roseburg sub-area were employed to establish an urban area growth trend. This was done on the assumption that about 20 percent of the sub-area's growth was occurring in rural areas, well beyond the scope of the Roseburg planning area. All building permit data for the Roseburg sub-area was used.

By breaking down building permit data into the same categories used in the 1980 survey (single-family, multifamily and mobile home) and multiplying by the accepted household size factor, the population increase for each year can be estimated. Since some permits are issued for dwellings which are never actually placed or constructed, it is necessary to subtract some units from these data. A rule-of-thumb is that roughly five percent of permits do not result in construction. In the unincorporated area a significant amount of the new dwellings were mobile homes which were replacing existing mobile homes. A four-percent replacement factor is therefore subtracted from new placement

figures. The replacement of existing conventional dwellings is also occurring. This is usually given a value of no more than one percent of the total existing stock; therefore, one percent of all new dwellings are not counted in the total. Finally, a vacancy rate adjustment must be figured into the model. Current data (see Housing Element) suggests a vacancy rate of two percent. The total of these adjustment factors requires a 12 percent downward adjustment to the data used in the projection model. For the four year period studied, the adjusted building permit data suggests an average annual population increase of about 475 in the unincorporated urban area. This is nearly twice the annual average increase experienced by the City.

As was done with the average annual city population increase, this figure can be projected in a straight line (linear extrapolation) and future low range Population projections can be derived. Also, computing the annual percent of change in the unincorporated population, an average annual percent of increase equaling 6.2 percent is derived. This percentage figure can then be used to make an exponential projection of population growth.

Table P-11 shows projected populations for both the City of Roseburg and the unincorporated urban area from the linear extrapolation (low range) method. Table P-12 illustrates that significantly higher projections are derived by applying the exponential method. Again, projections which fall somewhere between the high and low range are probably more reliable when planning for the future growth of the Roseburg urban area.

The 1980 unincorporated urban area population is then computed as follows:

Type of Dwelling	No. of Dwellings		Average Household Size		Population
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			TOTAL		7,593

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Table P-11 shows projected populations for both the City of Roseburg and the unincorporated urban area from the linear extrapolation (low range) method. Table P-12 illustrates that significantly higher projections are derived by applying the exponential method. Again, projections which fall somewhere between the high and low range are probably more reliable when planning for the future growth of the Roseburg urban area. The middle range projections are listed in Table P-13. These projections are graphically illustrated in a comparative fashion in Chart P-5.

TABLE P-11
Low Range
POPULATION PROJECTIONS
LINEAR EXTRAPOLATION METHOD
1980-2000

Year	Roseburg*	Unincorporated Urban Area	Total Projected
1980	17,824	7,593	25,417
1985	19,049	9,968	29,017
1990	20,274	12,343	32,617
1995	21,499	14,718	36,217
2000	22,724	17,093	39,817

TABLE P-12
High Range
POPULATION PROJECTIONS
EXPONENTIAL EXTRAPOLATION METHOD
1980-2000

Year	Roseburg*	Unincorporated Urban Area	Total Projected
1980	17,860	7,593	25,453
1985	19,335	10,258	29,593
1990	20,931	13,857	34,788
1995	22,664	17,992	40,656
2000	24,535	24,305	48,840

*Does not include growth attributed to annexations which will actually occur.

TABLE P-13
Middle Range
POPULATION PROJECTIONS
1980-2000

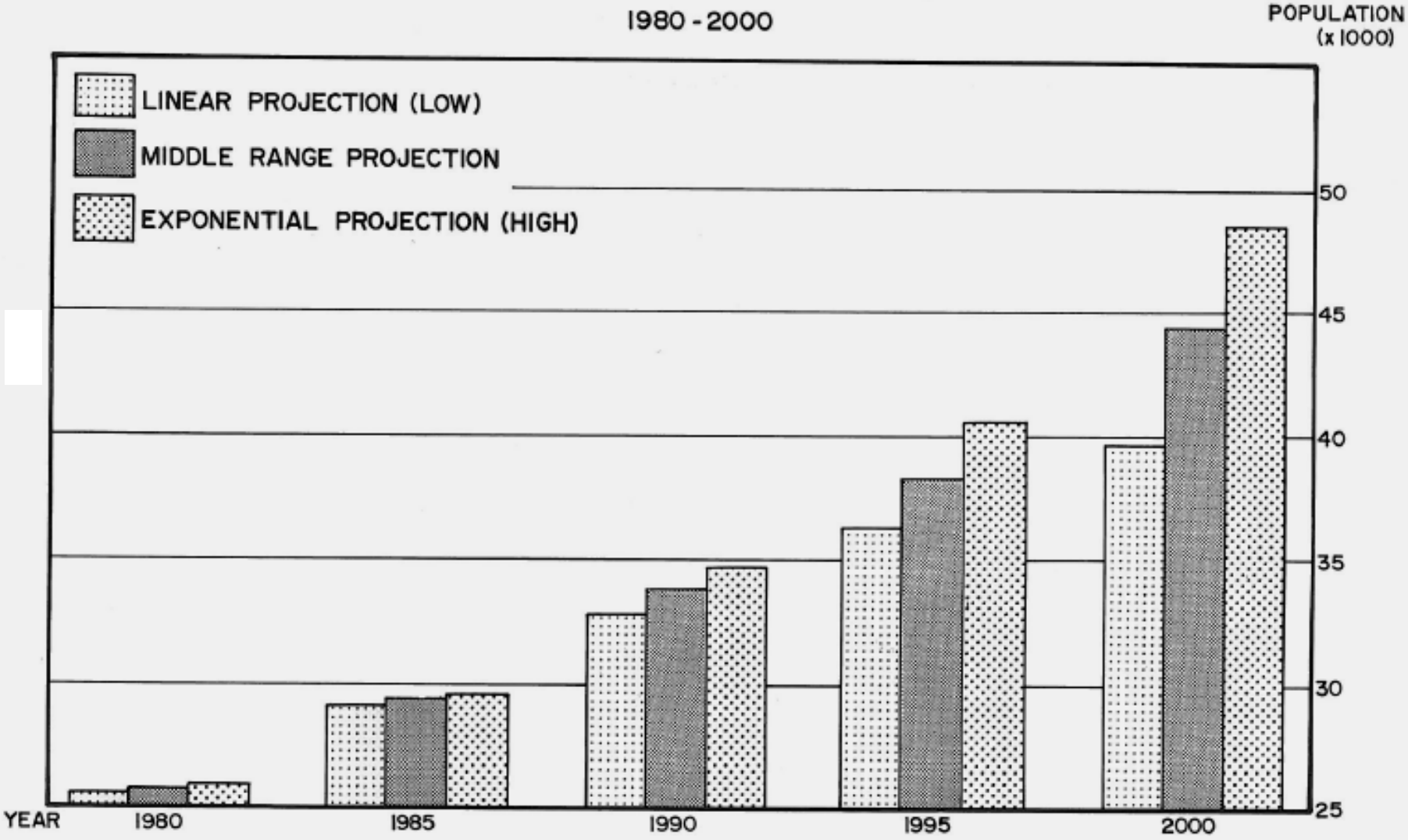
Year	Roseburg*	Unincorporated Urban Area	Total Projected
1980	17,842	7,593	25,435
1985	19,192	10,113	29,305
1990	20,602	13,100	33,702
1995	22,081	16,355	38,436
2000	23,630	20,699	44,329

*Does not include growth attributed to annexations which will actually occur.

CHART P-5

ROSEBURG URBAN AREA POPULATION PROJECTIONS

1980 - 2000



SUMMARY

The population projections contained in this element represent the best estimate of Roseburg's future growth, considering the data available and the methodology applied. Although projection accuracy is sought, the inherent limitations of such accuracy must be recognized. Projections are not an empirical fact, but a calculation based on trends, data, and assumptions. Accuracy of the projection is, therefore, dependent on the accuracy of the assumptions and data used to make the calculation. Any unforeseen change in the trend would, of course, result in discrepancies between actual population and projected population. As projection time increases, accuracy decreases because of the unforeseen variables and changes. Therefore, it is imperative that the projections be periodically monitored to evaluate the assumptions and note any new or unforeseen population changes.

The population projections form the basis on which most major planning decisions are made, particularly in the areas of housing, economy, urbanization, and public facilities and services.

Since the-population projection plays such an essential role in planning for Roseburg's future growth and development, it is critical that it be used in conjunction with alternative growth patterns which reflect existing desirable conditions to derive the greatest benefit.

FINDINGS

1. The population trend of Roseburg has been similar to Douglas County and Oregon as a whole. In all periods of major growth in the county and state, Roseburg has experienced comparable expansion. Similarly, Roseburg has had little or no growth during relatively static periods in the county and state.

2. Historically, Roseburg's population growth rate has been very closely tied to economic conditions. In more recent times, however, there seems to be less dependence on local economic stability. An increasing percentage of the area's new population is comprised of persons locating in Roseburg who wish to take advantage of the perceived quality of life rather than job opportunities.

3. Development resulting from an increasing population depends on numerous other factors, including availability of developable land; an adequate level of urban services, a continued source and supply of basic resource materials; adequate transportation facilities; adequate source of water; and a host of socially-oriented factors.

4. The average density of population within the incorporated city limits has remained relatively constant. While the population density in the unincorporated urban area is presently lower than in the city, it is increasing at a much faster rate.

5. The Roseburg urban area 1978 population constitutes about one-third of the total Douglas County population. While Douglas County as a whole has been growing at an average of 2.3 percent per year since 1970, the Roseburg urban area has been increasing at a faster rate; 3.9percent* per year.

6. Current growth trends suggest that by 1990, the Roseburg urban area will account for about one-third of the total county population. By the year 2000, this trend would push the urban area's share of the county population to over 36 percent.

7. Population projections indicate a moderate annual increase which could average about 3.9 percent* per year for the Roseburg urban area.

*Combined weighted average for incorporate and unincorporated areas.

ASSUMPTIONS

1. The Roseburg urban area will continue to grow at a faster rate than Douglas County as a whole.

2. The City of Roseburg will experience much greater population increases in the future due to policies which encourage annexation prior to development of currently unincorporated areas.

3. Escalating land values will make it increasingly difficult for people to purchase acreage homesites in rural areas. The result will be an increased demand for housing in urban areas, including Roseburg.

4. With the continued availability of urban services development outside the incorporated city limits will continue to be a significant factor in the future growth of the Roseburg urban area.

5. If contemporary growth trends continue into the future, the Roseburg urban area will contain a population of 44,329 persons by the year 2000.

GOAL AND POLICY STATEMENTS FOR GROWTH

GOAL

To accommodate Roseburg's anticipated population growth through the orderly provision of essential facilities and services while promoting wise and efficient land use.

POLICIES

1. The City of Roseburg will support federal, state, and local alternative to life in the urban area.

2. Concepts of urban development for cost effectiveness and energy efficiency will be supported.

3. All elements of the Roseburg Urban Area Comprehensive Pla shall be coordinated with the mid-range year 2000 population projection of 44,329 persons. Yearly population changes or trends will be monitored and assessed for their impacts. Prior to any amendment of the Comprehensive Plan, these changes or trends shall be considered.

4. Resources necessary to provide adequate public services utilities and facilities should be budgeted to meet the projected population.

NATURAL RESOURCE ELEMENT

URBAN AREA

ROSEBURG

R

COMPREHENSIVE PLAN

NATURAL RESOURCES ELEMENT

Introduction

The Natural Resources Element deals with a variety of interrelated natural assets, which as a whole represents the basic character of Roseburg and its environs. These assets include physical geology, aggregate and mineral resources, soils, water and air quality, wildlife and wildlife habitat, and climate. Of course, many other factors account
for the nature of the urban area, such as natural hazards, open space, and various types of land use, but these subjects will be dealt with in detail in other elements of the Plan.

The natural environment and its resources add to the livability of the Roseburg urban area. Local awareness and appreciation for nature, as well as the inherent limits of its resources, is essential to the need to provide a physically and psychologically healthy urban environment. Urban areas provide a diversity of economic, social and cultural opportunities. It is equally important to provide diversity, and ensure quality, in the natural environment of the city.

Air and water resources are especially vital in the urban area. Internal and external factors contribute to problems associated with air quality and water quality, but proper planning and sound land use practices can help reduce these problems and make the environment more livable.

The Natural Resources Element provides broad direction for maintaining and improving our natural urban environment. The inventories and analysis conducted as the basis for this element and the goals, objectives and policies contained herein address numerous statewide planning goals and interpret those goals in the context of the needs and circumstances of the Roseburg urban area.

Climate

Situated about 50 miles inland from the Pacific coast at an elevation of 500 feet, Roseburg experiences a slightly modified marine climate with marked seasonal characteristics. Late fall, winter, and early spring months are damp, cloudy, and cool under influence of marine air. Late spring, summer and early fall are warm, dry, and sunny due to the dry continental nature of the prevailing winds aloft which cross this area.

The rain shadow afforded by the Coast Range results in a relatively light annual rainfall, of which about 80 percent falls between October and March with snowfall contributing only 3 percent of this- Individual snowfall accumulations seldom last more than 24 hours and present little hindrance to transportation in and around the urban area.

Annual precipitation in Roseburg averages 33 inches, falling in measurable amounts an average of 131 days of the year. Scanty summertime rainfall is brought by thunderstorm activity, which affects the mountains to the south and east for the most part, but occasionally spreads over the Roseburg area.

Fog often fills the lower elevations during the fall and winter months, when rapid clearing of the sky after a storm allows nocturnal cooling of the entrapped, moist air to the saturation point. Duration of fog is seldom more than three days; usually only one or two days.

Few extremes of temperature occur in the Roseburg area. In winter, the average daily minimum temperature dips slightly below freezing during December and January, with an average winter temperature of 54.60 F. So temperate is the climate in general, that winter days below 200 F are rare. High temperatures in the summer months average slightly below 900 F, with extremes occasionally climbing to or slightly above the 1000 mark. But there have been wider extremes in temperatures. On January 16, 1888,
a temperature of 60 below zero was recorded in Roseburg. A high temperature of 1090 was recorded on July 20, 1946.

Prevailing northerly winds exist from February through October with southerly winds persisting during November through January. Hourly wind speeds average 4-6 mph, with winds of less than 3 mph occurring from 30 percent of the time in July to 80 percent of the time in November.

A summary of Roseburg's climatic conditions is illustrated on Chart NR-1. Table NR-1 lists the climatological normals, means, and extremes for Roseburg.

TABLE NR-1
TABLE C-1
CLIMATOLOGICAL NORMALS, MEANS, AND EXTREMES
FOR ROSEBURG

	Temperature							
	Normals			Extremes				
Month	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Normal degree days
(a)	(b)	(b)	(b)	11		11		(b)
J	47.2	33.4	40.3	65	1959+	-1	1962	766
F	51.9	34.6	43.3	72	1963	13	1956	608
M	56.7	36.4	46.6	81	1960	19	1956	570
A	63.5	39.4	51.5	90	1957+	27	1955	405
M	69.4	43.5	56.5	95	1956	36	1954	267
J	75.1	47.9	61.5	102	1961	34	1954	123
J	84.0	51.8	67.9	106	1961	39	1962	22
A	83.8	51.4	67.6	103	1960	41	1956+	16
S	78.0	47.5	62.8	102	1955	32	1954	105
O	65.9	42.9	54.4	91	1958	26	1954	329
N	53.8	38.4	46.1	73	1955+	15	1955	567
D	48.3	35.6	42.0	69	1958	18	1962	713
YR	65.8	41.9	53.4	106	July 1961	-1	Jan 1962	4491

TABLE NR-1 (CONTINUED)

Precipitation

								Snow, Sleet				
Month	Normal Total	Maximum monthly	Year	Minimum monthly	Year	Maximum in 24 hrs	Year	Mean Total	Maximum monthly	Year	Maximum in 24 hrs.	Year
(a)	(b)	12		12		12		12	12		12	
J	5.51	10.98	1964	1.36	1962	3.17	1964	3.2	13.3	1954	9.1	1954
F	4.21	9.46	1958	1.04	1964	4.25	1961	.3	2.6	1959	2.6	1959
M	3.42	6.46	1961+	3.23	1954	1.33	1960	0.7	7.0	1956	6.7	1956
A	1.93	5.28	1963	0.59	1959	0.99	1963	0.2	2.4	1953	2.4	1953
M	1.85	3.80	1960	0.30	1954	1.51	1963	T	T	1964	T	1964
J	1.50	4.97	1958	T	1960	1.17	1958	0.0	0.0		0.0	1964
J	0.21	0.48	1958	T	1962+	0.78	1958	0.0	0.0		0.0	
A	0.31	1.29	1953	T	1963+	0.61	1953	0.0	0.0		0.0	
S	1.00	1.98	1957	0.44	1964	1.13	1963	0.0	0.0		0.0	
O	3.02	7.00	1956	0.92	1964	2.16	1956	0.0	0.0		0.0	
N	4.46	10.11	1961	0.80	1959	4.80	1961	1.4	10.8	1961	9.4	1961
D	5.69	15.74	1955	2.00	1963	4.03	1955	0.7	5.5	1964	4.0	1964
YR	33.1	15.74	Dec 1955	T	Aug 1963+	4.80	Nov 1961	6.5	13.3	Jan 1954	9.4	Nov 1961

TABLE NR-1 (CONTINUED)

	Relative Humidity		Wind						
					Fastest Mile				
Month	10:00 A.M. PST	4:00 P.M. PST	Mean Hourly Speed	# Prevailing Direction	Speed	# Direction	Year	Pct. Of possible sunshine	Mean Sky Cover sunrise to sunset
(a)	11	11	12	12	12	12		12	12
J	86	73	3.9	S	34	SW	1958	26	8.7
F	83	66	4.1	N	38	SW	1961	30	8.4
M	73	56	4.8	N	40	S	1963	39	8.0
A	63	50	4.9	N	29	SW	1960	49	7.2
M	61	50	4.9	N	22	N	1964+	52	6.8
J	59	46	5.3	N	22	NW	1963+	61	5.7
J	54	34	5.9	N	25	NW	1959+	79	3.0
A	56	36	5.4	N	25	N	1953	74	3.8
S	63	41	4.6	N	25	N	1959	68	4.8
O	80	58	3.5	N	50	S	1962	42	7.1
N	86	73	3.6	S	31	SW	1959	25	8.5
D	89	80	3.6	S	31	S	1958+	20	8.9
YR	71	55	4.5	N	50	S	Oct 1962	50	6.7

TABLE NR-1 (CONTINUED)

Mean number of days

	Sunrise to Sunset							Temperatures			
								Maximum		Minimum	
Month	Clear	Partly Cloudy	Cloudy	Precipitation .01 inch or more	Snow, Sleet 1.0 inch or more	Thunderstorms	Heavy Fog	90 and above	32” and below	32” and below	0ºand below
(a)	12	12	12	12	12	12	12	11	11	11	11
J	1	5	25	18	1	*	8	0	1	14	*
F	1	6	21	16	*	0	8	0	0	9	0
M	2	7	22	17	*	*	4	0	0	9	0
A	4	8	18	13	*	1	2	*	0	4	0
M	6	8	17	12	0	1	1	1	0	*	0
J	8	10	12	7	0	1	*	2	0	0	0
J	19	7	5	2	0	*	*	7	0	0	0
A	16	8	7	3	0	1	*	7	0	0	0
S	12	9	9	6	0	1	2	4	0	*	0
O	4	11	16	11	0	*	12	*	0	2	0
N	1	6	23	15	*	0	11	0	*	8	0
D	1	4	26	16	*	*	11	0	0	10	0
YR	75	89	201	135	2	5	59	21	1	56	*

Means and extremes in the above table are from the existing location. Annual extremes have been exceeded at other locations as follows: Highest temperature 109 in July 1946; lowest temperature -6 in January 1888; minimum monthly precipitation 0.00 in June 1951 and earlier dates; maximum monthly snowfall 28.0 in January 1950.

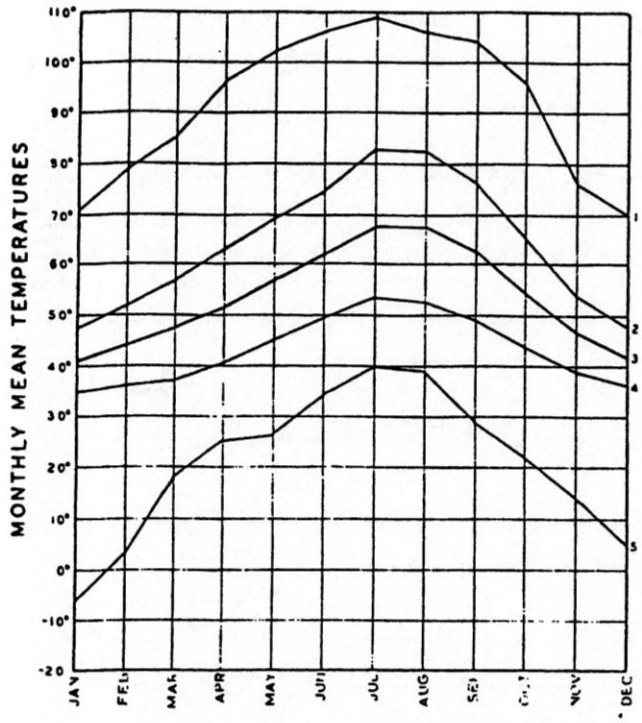
(a) Length of record, years.
(b) Climatological standard normals
* Less than one half.
\+ Also on earlier dates, months or years
T Trace, an amount too small to measure
Below-zero temperatures are preceded by a minus sign
\# To 8 compass points only.

TABLE NR-1 (CONTINUED)

Unless otherwise indicated dimensional units used in this bulletin are: temperature in degrees F; precipitation, including snowfall, in inches, wind movement in miles per hours; and relative humidity in percent. Monthly heating degree day totals are the sums of the negative departures of average daily temperatures from 65° F. Sleet was included in snowfall totals beginning with July 1948. Heavy fog reduces visibility to ¼ mile or less.

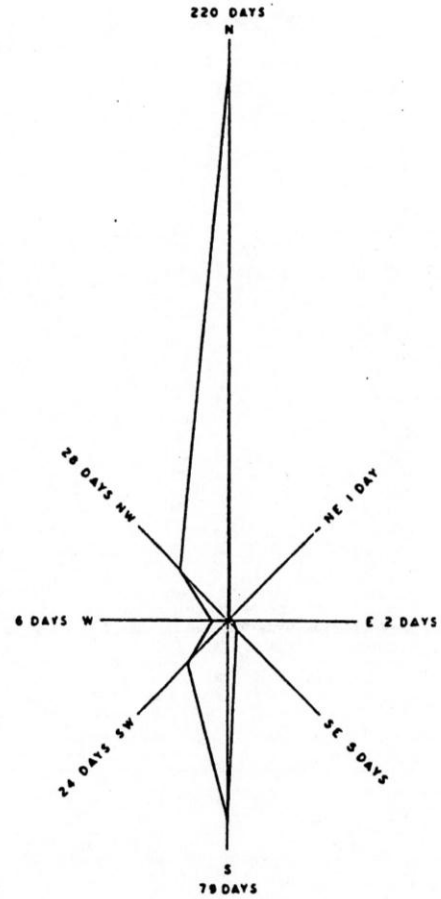
Sky cover is expressed in a range of 0 for no clouds or obscuring phenomena to 10 for complete sky cover. The number of clear days is based on average cloudiness 0-3; partly cloudy days 4-7; and cloudy days 8-10 tenths.

Temperature extremes and relative humidity means in the Normals, Means, and Extremes table are for comparable locations through 1963.

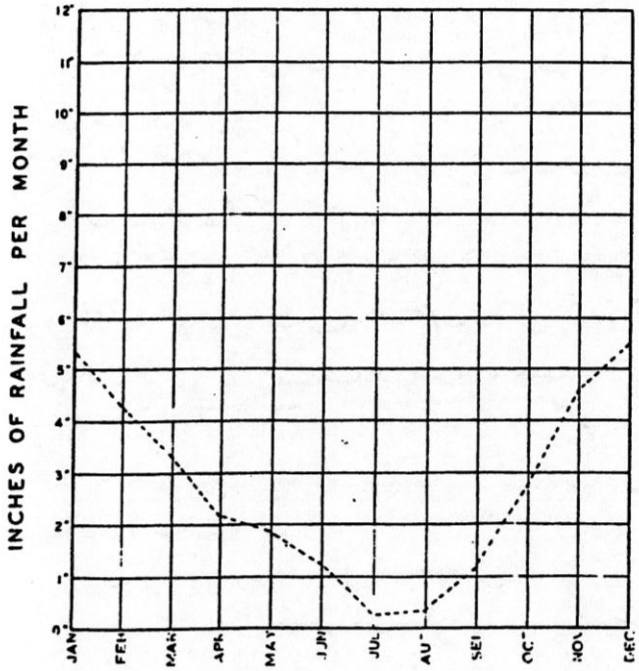


AVERAGE MONTHLY TEMPERATURES

1 RECORD HIGH TEMPERATURE
2 MEAN MAXIMUM TEMPERATURE
3 AVERAGE MEAN TEMPERATURE
4 MEAN MINIMUM TEMPERATURE
5 RECORD LOW TEMPERATURE



WIND ROSE
AUG'53 TO AUG'54



AVERAGE MONTHLY PRECIPITATION

----- NORMAL MONTHLY PRECIPITATION

WEATHER

FOR ROSEBURG, OREGON

AIRPORT STATION ELEVATION 505 FT.

PRECIPITATION

SNOWFALL

OCTOBER	T
NOVEMBER	.2
DECEMBER	.7
JANUARY	3.2
FEBRUARY	1.5
MARCH	1.0
APRIL	.1
YEARLY AVERAGE	6.7

RAINFALL YEARLY AVERAGE	33.11

TEMPERATURE

ANNUAL MEAN TEMPERATURE

AVERAGE MEAN		53.7°
HIGHEST TEMPERATURE		
EVER RECORDED	1946	109°
LOWEST TEMPERATURE		
EVER RECORDED	1888	-6°

AVERAGE DATE OF KILLING FROST

LATEST IN SPRING	APRIL 5
EARLIEST IN FALL	NOV 13

WIND

MEAN HOURLY WIND VELOCITY FOR ROSEBURG 4.3 MILES PER HOUR. HIGHEST WIND VELOCITY EVER RECORDED AT ROSEBURG 40 MPH

SOURCE OF DATA
U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

GEOLOGY

The City of Roseburg is situated atop an Eocene sediment formation which bears its name. The Roseburg Formation is an inter-bedded sedimentary formation which was created as the result of the many advances and withdrawals of the sea. While it is difficult to estimate the length of time which the area was covered by the ocean, it must have been many millions of years, for the sedimentary layer formed is over 8,000 feet thick.

To the south and east, about 100,000,000 years ago, islands appeared-forerunners of the Klamath Mountains.

Eventually the ocean receded and much of Oregon was level, subtropical land. Trees such as cinnamon, avocado, and fig, as well as sycamore and redwood, flourished in the warm climate.

Near the end of the early Eocene period, pressure from plate movement caused a dramatic change in the once relatively flat sedimentary formation. The effects of these tremendous forces can be seen today in the many ridges which surround Roseburg. Almost without exception, these ridges, which are really folds and upthrusts of the sedimentary base, tend to lie in a north to northeasterly direction.

During the ensuing millenia, many changes occurred. Central Douglas County was subjected to many large lava flows (60-30 million years ago). Erosion and subsequent volcanic activity of late Oligocene and early Miocene times (30-20 million years ago) covered much of the earlier formation with new debris. Pillow lavas of that era cropped out extensively in the Roseburg area and quarries have been developed at several of these
locations.

In the late Miocene and early Pliocene period (15-2 million years ago), the uplifting of the deeply covered lava surface formed the present Cascades. A string of volcanoes emerged on the eastern slopes; among them were the mountains McLoughlin, Mazama, Theilson and Diamond Peak. Volcanic eruption of these

mountains deposited vast amounts of pumice across the face of the Cascades. The layers of pumice, which vary in thickness from 20 to 600 feet, formed a very permeable aquafer, or groundwater storage
area and is primarily responsible for the clear, even flowing waters of the North Umpqua River. The South Umpqua River, by contrast, emerges from an area of the Klamath Mountains which were not covered by the thick pumice deposits. The South Umpqua then, does not have the extensive subsurface reservoir to draw from, but instead, is fed primarily from surface runoff and is, therefore, much more subject to fluctuation in the amount and quality of the runoff.

Today, in geologic terms, the central Douglas County area is stable; though there is evidence that the Coast Range west of Roseburg is under-going epirogenic uplift at present. There are no known geological faults in the immediate Roseburg urban area; the nearest being about 5 miles to the south. The only recorded earthquake in Douglas County was the Roseburg earthquake of 1913. A small earthquake occurred off the coast of Douglas County in 1938. This relative lack of seismic activity in the Roseburg vicinity suggests little risk of such a hazard in the future.

MINERAL AND AGGREGATE RESOURCES

Douglas County has enjoyed a very active and colorful mining history. During the 1850's, prospectors explored essentially all of the streams of the County for gold and other precious minerals. They found fair to good prospects on only a few of the streams. Noteworthy among these are Starvout, Hogum, Quines, Bull Run, Coffee and North Myrtle Creeks. There is no record of significant mining activity in the Roseburg vicinity. In fact, most mineral exploration has been confined to the southern half of the county. While prospecting, mining and mineral production once played a major role in the economic development of the county, today these activities have all but completely disappeared; with the exception of one important operation.

The operation that keeps Douglas County leading all other counties in the state in value of mineral production is the nickel mine and smelter near Riddle. During the 1960's and 1970's the Nickel Mountain mine operated by the Hanna Mining Company has yielded more than one million tons of ore annually with an average nickel content of

1.41 to 1.50 percent, and the smelter has produced in excess of 20,000,000 pounds of nickel metal in the form of ferronickel alloy. Employing some 600 persons, the Hanna Nickel operation represents one of the single most important economic resources in the region.

Sand and gravel production ranks second in monetary value of mineral resources in Douglas County. The two principal producers in the Roseburg area are Roseburg Sand and Gravel and Beaver State Sand and Gravel.

Sand and gravel, and crushed rock are the basic materials for the construction industry. An adequate supply of low-cost, good-quality aggregate is essential for the concrete used in the highways, bridges, streets, sidewalks, foundations, and buildings of an expanding urban area.

In central Douglas County the best quality sand and gravel occurs in the flat ground near, or within the banks of, the major streams and tributaries. While these locations have the advantage of being easily accessible, their removal often poses the threat of adverse environmental consequences. Often, some of the best sand and gravel deposits are over laden with some of the richest agricultural soils. To take advantage of the needed aggregate resource, valuable farm land must be destroyed. In other locations, easily accessible, high quality sand and gravel is situated in a stream bed. Improper removal techniques can have serious impacts on the water quality and can interfere with aquatic life by disrupting fish runs and even destroying spawning grounds.

Rock pits and quarries also pose special problems. The operation of removing, crushing and hauling the aggregate often creates significant air and noise pollution. As urban expansion encroaches on land bearing aggregate resources, the industry's problems of land use and environmental impacts accelerate.

The demand for aggregate resources has steadily increased over the years and is expected to increase in the future. While specific figures for the Roseburg area are not available, the U.S. Bureau of Mines production statistics show that the Douglas County sand and gravel industry produced about 812,000 tons of sand and gravel aggregate in 1960. The 1970 totals show that production had increased to about

883,000 tons. Estimates from other studies in Oregon indicate that the annual per capita use of sand and gravel is about 6.5 tons; this figure appears to be realistic for Douglas County also. Projecting the same per capita usage rate for the Roseburg Urban area it can be estimated that about 193,000 tons per year are currently required. By 1990, the demand could climb to around 250,000 tons annually.

The Oregon State Department of Geology and Mineral Industries has estimated that sand and gravel reserves underlie about 135 acres in the central Douglas County area. Al] of the deposits are within economic transportation distance of the Roseburg urban area. The sand and gravel occurs in the channel and in bars and floodplain terraces at slightly
different levels mainly on the inside bank of large meanders of the streams. Thickness of the gravel ranges from a few feet in the shallow bars to as much as 20 feet in the higher floodplain terraces.

Assuming an average minable thickness of ten feet, we can estimate 35,000 tons of sand and gravel per acre, or nearly 5 million tons of saleable gravel in the 135-acre area. At the present rate of gravel consumption for the central Douglas County area, this reserve should last at least 15 years.

The above calculations can only be considered an approximate estimate of reserves, a completely realistic summary will require extensive field surveys to determine the lard area actually available for mining, the thickness of deposits, and quality of materials. Competing land use activities will have a significant limiting effect on the availability of new resource finds.

Crushed quarry rock will continue to increase in importance to the construction industry as the more desirable good-quality sand and gravel deposits become depleted. To be used as a substitute for sand and gravel, the rock, after crushing and sizing, must meet the required specifications for the specific use. These include resistance to abrasion, chemical stability, specific gravity, and its resistance to weathering.

The U.S. Bureau of Mines reported a production of 285,000 tons of crushed rock for Douglas County in 1960 and by 1970 the statistics showed an increase in 446,000

tons per year. Current production data is not available, but is estimated that over 50 percent of the aggregate used today is crushed rock, as compared to about 25 percent in 1960. As with sand and gravel, crushed rock cannot be hauled very far economically, so quarries must be conveniently located to the urban area and to the projects where large quantities will be used, the accompanying Geology Map shows the location of quarries and known gravel deposits in the Roseburg area.

In the Roseburg urban area two sites have been identified as significant sources of aggregate material. Both sites provide basic materials utilized by the construction industry. Currently zoning allows for utilization of the resources at these sites while providing for the
mitigation of potential adverse impacts through the Conditional Use Permit process. The nature of the location of both sites minimizes the potential for conflicting uses.

One site is located within the banks of the South Umpqua River, below the Washington Street bridge, in T.27S., R.6W., Section 24AA. The site is comprised of a gravel bar which runs south from Elk Island, and the adjacent east stream bed of the river. This active site provides 10,000 cubic yards of high quality sand and gravel annually from a very large reserve. Removal of aggregate from this site is under permit by the Division of State Lands.

The second site is a hill of approximately 600,000 cubic yards located at the north end of the Roseburg Municipal Airport in T.27S., R.6W., Section 1. Part of this City-owned site is planned to be excavated in 1984 in conjunction with airport improvements as outlined in the Airport Master Plan. This site would primarily yield random fill materials obtained by blasting. Economic constraints related to the demand for this moderate quality material will most likely limit excavation to that area necessary to reduce the site's encroachment into the airport approach surface. Material excavated from this site
is planned to be used for further airport improvements. Structural development at this site is not permitted in accordance with airport clear zone and other imaginary surfaces established in the Airport Master Plan.

Available information was not sufficient to determine the full extent, quality, and quantity of two of the four mineral sites identified. These sites located in T.27S., R5W., Section 18B and T.27S., R.5W., Section 17, are included on the inventory map and will be studied in the future.

Sources used to identify resource sites include:

Division of State Lands removal permits

Telephone interview, Stephen Loosley, March 3, 1984

Douglas County Mineral Resources Inventory

Aggregates are a basic construction material and are a vital commodity upon which the region's economic development depends. Therefore, it is important that the area's aggregate resource be fully developed and protected from encroachments by other land use activities.

The nature of aggregate production, whether sand and gravel or crushed rock often conflicts with other values and is considered by many to be undesirable. Air and water pollution, noise, land disturbance and general unsightliness is inherent in the industry. Location near urbanizing areas is required, however, owing to high hauling costs and natural distribution. For economic reasons it is imperative that urban growth be prevented from sprawling indiscriminately over future sources of supply.

The aggregate industry and society are best served by the implementation of multiple use and sequential land use policies. Visual and acoustic screening can minimize the adverse aesthetic impacts of gravel and quarry operations. Abandoned sites can be used for a variety of subsequent activities, depending upon the overall physical and cultural setting.

SOILS

An understanding of soil characteristics within the Roseburg Urban area is an indispensable too] in land use suitability analysis and ultimate formulation of the comprehensive plan.

This knowledge of soils is paramount to the planning process not only as they are found in the natural landscape, but also the manner in which they respond to the development activities of man. Individual soils with similar narrow ranges in many properties that combine to give them distinguishing character are grouped together as classes and each class is given a specific name, usually in relation to some geographic feature.

Soils develop as an interaction of the parent material, climate, relief and biological activity acting over a period of time. A "soil" as defined in soil science and soil classification is an individual body on the surface of the earth. It has depth and shape. Its boundaries are also the boundaries of other soils (or of non-soil bodies on the surface of the earth). These boundaries come at places where one or more of the basic soil forming factors change or have been different at some time during the genesis of the soil. These factors are: (1) climate and (2) living matter that act on, (3) parent material for soil, as conditioned by (4) relief over periods of, (5) time.

It should be noted that soil areas shown on maps and given specific names can seldom be 100 percent pure taxonomic units, Each specific mapping unit is likely to have small incursions of other kinds of soil.

Soils data is usually employed at two levels of detail in the land use planning process; generalized soil maps and detailed soil maps are useful for analysis of various land use alternatives projected on an area-wide basis.

Detailed soil data is useful in analyzing site-specific locations for suitability of dwellings, streets, parks and other facilities. The detailed data breaks down soil series into sub-associations which differentiate various characteristics within a single soil series. Factors such as slope, aspect, stoniness or depth are identified. For example, the Philomath series is very common in the Roseburg vicinity. Within the series, however, we find several sub-associations, each with its own special character and suitability for development. Philomath cobbly silty clay loam on 3-12 percent slopes is suited for certain kinds of use, while Philomath silty clay on 3-12 percent slopes may be more suited or less

suited for the same kind of development.

Detailed descriptions of the many soil series found in the Roseburg planning area, as well as their capabilities and limitations for specific uses, are found on the Oregon Soil Interpretation Sheets (OR-1). These OR-1 sheets also provide information about a particular soil's relation to woodland groups, woodland productivity, recreation suitability, wildlife habitat suitability, roodfill source, topsoil source and aggregate source OR-1 sheets for some of the more common soil series encountered in the Roseburg planning area are contained in the Natural Resources Element. To provide a better understanding of the information contained on the OR-1 sheet, the following explanation is presented.

Explanation of Soils Chart

Soil Number

This reference number is found in the upper right hand corner of the OR-1 5heets and on Detailed Soils Maps.

Soil Series

The Soil Series is a group of soils having soil horizons similar in character and arrangement within the soil profile. The soils within a series are essentially homogeneous in all soil profile characteristics except texture, principally on the surface horizon, and in such features as slope, stoniness, degree of erosion, topographic position, and depth to bedrock.

Position

Presented in broad geographical terms.

Slope

Soil slope refers to the incline of the surface of the soil area. It is an integral part of any soil as a natural body, not something apart from it. A simple, or single, slope is defined by its gradient, shape and length, Depending upon the detail of mapping and the character of the soil areas, slopes may be defined as single or complex, or as patterns of
slope classes.

Permeability

The quality of a soil that enables it to transmit water or air is its permeability. Accepted as a measure of this quality is the rate at which soil transmits water while saturated. Permeability is estimated on the basis of those soil characteristics observed

in the field, particularly structure and texture. The estimates do not take into account lateral
seepage or such transient soil features as plowpans and surface crusts.

The following classes and rates are used:

Permeability Class	Numerical Range (In. per Hour)
Very Slow	Less than 0.06
Slow	0.06 - 0.2
Moderately Slow	0.2 - 0.6
Moderate	0.6 - 2.0
Moderately Rapid	2.0 - 6.0
Rapid	6.0 - 20.0
Very Rapid	More than 20

Shrink-Swell

The shrink-swell factor is the relative change in volume to be expected of soil material with changes in moisture content, that is, the extent to which the soil shrinks as it dries out or swells when it gets wet. Extent of shrinking and swelling is influenced by the amount and kind of clay in the soil. Shrinking and swelling of soils causes much damage to building foundations, roads and other structures. A high shrink-swell potential indicates a hazard to maintenance of structures built in, on, or with
material having this rating.

Erosion Hazard

Potential erosion hazard estimates the susceptibility of soil particles to detachment and transport by rainfall and runoff. Soil properties affecting soil erodibility are: soil texture (especially the percent of silt plus very fine sand). percent of sand greater than 0.10 mm, organic matter content, soil structure (type, grade), soil

permeability, clay mineralogy and clay fragments. Erosion hazard classes are slight, moderate, high and very high.

Septic Suitability

A septic tank absorption field is a soil absorption system for sewage disposal. It is a subsurface tile or perforated pipe system lain in such a way that effluent from the septic tank is distributed with reasonable uniformity into the natural soil. Criteria used for rating soils are based on the limitations of the soil to absorb effluent. Important features affecting this use are permeability, depth to seasonal water table, flooding, slope, depth to bedrock or hardpan, stoniness, and rockiness. The septic limitations ratings for Douglas County are:

Probable A proposed system would be very likely to meet state installment and performance standards and the should not pose a health hazard.

Possible Chances for a location for installment would be less, and the health hazard of the system would be slightly increased.

Unlikely Indicates a high health hazard concern, and a strong possibility that the site could not handle septic disposal wastes.

Severe Indicates that on the basis of soil descriptions, the area will not usually meet current regulations for septic system approval.

Limitations

Ratings for foundation and road construction suitability are based on degrees of soil limitations. The rating terms are slight, moderate and severe.

Slight soil limitation is the rating given soils that have properties favorable for the rated use. This degree of limitation is minor and can be overcome easily. Good performance and low maintenance can be expected.

Moderate soil limitation is the rating given soils that have properties moderately favorable to the rated use. This degree of limitation can be overcome or modified by special planning, design or maintenance. During some part of the year, the performance of the structure or other planned use is somewhat less desirable than for soils rated slight. Some soils rated moderate require treatment such as artificial drainage, runoff control to reduce erosion, extended sewage absorption fields, extra excavation, or some other modification or manipulation of the soil. Modification may include special foundations, extra reinforcements, sump pumps, etc.

Severe soil limitation is the rating given soils that have one or more properties unfavorable for the proposed use, such as steep slopes, bedrock near the surface, flooding hazard, high shrink-swell potential, seasonal high water table, or low bearing strength. This degree of limitation generally requires major soil alteration, special design or special maintenance. Some of these soils, however, can be improved by reducing or removing the soil feature that limits use, but in many situations it is difficult and costly to alter the soil or to design a structure to compensate for a severe degree of soil limitation.

Foundation Limitations

The interpretation for foundation limitations is based on the OR-1 category of "Dwellings Without Basements." The ratings are for structures no more than three stories high that are supported by foundation footings placed in undisturbed soil. The features that affect the rating of a soil for dwellings are those that relate to capacity to support load and resist settlement. Soil properties that affect capacity to support load are wetness, susceptibility to flooding, density, plasticity, texture, and shrink-swell potential.

Roads Limitations

Interpretations for road limitations are based on the OR-1 category of "Local Roads and Streets," which have an all weather surface expected to carry automobile traffic year around. They have a sub-grade or underlying material; a base consisting of

gravel, crushed rock or soil material stabilized with lime or cement; and a flexible or rigid surface,
commonly asphalt or concrete. These roads are graded to shed water, and have ordinary provisions for drainage. They are built mainly from soil at hand, and most cuts and fills are less than six feet deep.

Soil properties that affect the design and construction of streets and roads include: load supporting capacity and stability of the sub-grade, and the workability and quantity of cut and fill material available. Wetness and flooding affect stability of the material while factors such as slope, depth to hard rock or cemented layers, content of stones and rocks, and wetness affect ease of excavation and amount of cut and fill needed to reach an even grade.

Agricultural Capability Class

Each of the soil series and soil phases identified by the Soil Conservation Service is assigned one of eight crop capability classes. The classes serve to introduce the reader and soil manager to more detailed information. The capability classes express the potential for producing crops.

Class I through IV soils are suited to cultivation and other agricultural uses. Class V through VIII are generally not suited to cultivation and are limited to other agricultural uses.

Class I- Soils in Class I have few limitations restricting their use. This is the best soil for agricultural purposes and with ordinary management practices good productivity is stainable.

Class II- Soils in Class 11 have some limitations that reduce the choice of plants or require moderate conservation practices. The limitations are few, although careful soil management is required. Limitations may include gentle slopes, chance of wind or water erosion, slight to moderate salinity or sodium, wetness, or slight climatic limitations. These imply that the farmer will have less latitude than with Class I soils.

Class III- Soils in Class III have severe limitations that reduce the choice of plants or require special conservation practices, or both. Limitations of soils in Class III restrict the amount of clean cultivation; timing of planting, tillage, and harvesting; choice of crops; or some combination of these limitations.

Class IV- Soils in Class IV have very severe limitations that restrict the choice of plants, require very careful management, or both. They may be well suited to only two or three of the common crops or the harvest potential may be low in relation to inputs over a long period of time. The agricultural use of this soil is marginal. Land management practices must be employed more frequently or more intensively than on soils in Class III.

Class V- There are none in Douglas County.

Class VI- Soils in Class VI have severe limitations that make them generally unsuited to cultivation and that limits their use largely to pasture or range, woodland, or wildlife food and Cover. Soils in Class VI have continuing limitations that cannot be corrected.

Class VII - Soils in Class VII have very severe limitations that make them unsuited to cultivation and restrict their use largely to grazing, woodland, or wildlife habitat.

Class VIII - Soils and landforms in Class VIII have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife, water supply or aesthetic purposes. These soils have limitations which cannot be corrected.

Further information is used in conjunction with the capability classes. This information is called the soil capability subclass, and it describes the limitations of the soil for agricultural production. For example, a soil marked III (w) is a soil in Class III that has a water problem of some sort. The four subclasses are as follows:

1. Subclass (e) - erosion is made up of soils where the susceptibility to erosion is the dominant problem or hazard in their use.

2. Subclass (w) - excess water is made up of soils where excess water is the dominant hazard or limitation in their use.

3. Subclass (s) - soil limitation within the rooting zones includes, as the name implies, soils that have limitations, such as shallowness of rooting zones.

4. Subclass (c) - climatic limitation is made up of soils where the climate (temperature or lack of moisture) is the major hazard or limitation of use.

The geology of the Roseburg area is generally divided into two provinces. The bottom lands, which contain alluvial soils, and the up-thrusted Roseburg Formation which forms the many hills of the region.

The alluvial soils are transported soils formed by deposits of the rivers. These soils are fertile, well drained and relatively level.

The majority of soils within the area are derived from basalt parent material. The Roseburg Formation is comprised of submarine pillow basalts intermixed with sandstone and siltstone. These basalt formations form heavy clay soils usually black in color and are identified primarily as Philomath, Climax, Dixonville, and Curtin soils.

These soils, although usually clay, are fairly stable and foundations can be engineered and built satisfactorily on them. The largest problem is incurred in the shrink-swell potential of the soil, and in winter, water ponding. These problems are greatest on soils such as Natroy, Bashwa, Curtin and Climax. If urbanization is to occur on these soils,
special precautions must be made to ensure proper drainage and stable foundations. Although the limitations are severe, the problems can be overcome with proper engineering.

In areas where these basaltic soils contact sedimentary soils such as Oakland, Sutherlin, and Nonpareil soils, there may occur severe instability. This is an evident problem in the San Souci area where slippage and mass movement has represented a hazard to residential development.

The area surrounding Mt. Nebo ridge is basaltic in nature and relatively stable with the exception of the very steep slope areas.

Rifle Range Road is fairly stable and is comprised mostly of basaltic soils. Slumping does begin to occur on slopes from 25-35% in this area.

The Ramp Road area has several contact points of basalt and sedimentary soils which indicates instability especially on steeper slopes.

Table NR-2 lists the soils commonly encountered in the Roseburg area and identifies their suitability or limitation for various types of development activity. The accompanying detailed soils maps in the map pocket at the back of this document illustrates where the soils occur. Agricultural soils (Class I through IV) are identified on the accompanying Agricultural Soils Map.

TABLE NR-2

SOIL SERVEY IDENTIFICATION AND LIMITATION LEGEND FOR THE ROSEBURG AREA

Map Symbol	Mapping Unit Name	Slope	Septic	Dwelling Foundations	Streets & Roads	Recreation	Wildlife Habitat	Farm Class
25A	Evans Loam	0 – 3%	Severe	Severe	Severe	Severe	Good	II
35A	Newberg fine sandy loam	0 – 3%	Severe	Severe	Severe	Moderate	Good	II
40A	River-ash	0 – 3%	Severe	Severe	Severe	Severe	Poor	VIII
45A	Newberg fine sand loam w/overflow	0 – 3%	Severe	Severe	Severe	Moderate	Good	II
51A	Natory Clay	0 – 3%	Severe	Severe	Severe	Moderate	Poor	IV
51B	Natory Clay	0 – 3%	Severe	Severe	Severe	Moderate	Poor	IV
60A	Bashaw Clay	0 – 3%	Severe	Severe	Severe	Moderate	Fair	IV
61A	Roseburg Loam	0 – 3%	Moderate	Moderate	Severe	Slight	Good	I
70A	Coburg Silty Clay loam	0 – 3%	Severe	Severe	Severe	Severe	Good	II
71A	Roseburg Variant fine sandy loam	0 – 3%	Moderate	Moderate	Severe	Slight	Good	I
85A	Malabon silty clay loam	0 - 3%	Moderate	Moderate	Severe	Moderate	Good	I
85C	Malabon silty clay loam	3 – 7%	Moderate	Moderate	Severe	Moderate	Good	II
91A	Fordice	0 – 3%	Moderate	Moderate	Moderate	Moderate	Fair	IV
91C	Fordice very cobbly loam	12-20%	Severe	Severe	Severe	Severe	Fair	IV
100C	Curtin Clay	3 – 7%	Severe	Severe	Severe	Severe	Fair	III
100D	Curtin Clay	7 –20%	Severe	Severe	Severe	Severe	Fair	III
101D	Edenbower clay	12-20%	Severe	Severe	Severe	Severe	Poor	IV
101E	Edenbower Clay	20-35%	Severe	Severe	Severe	Severe	Poor	VI
101F	Edenbower	35-60%	Severe	Severe	Severe	Severe	Poor	VI
105D	Climax clay	12-20%	Severe	Severe	Severe	Severe	Fair	IV
105E	Climax clay	20-35%	Severe	Severe	Severe	Severe	Fair	IV
110D	Dixonville silty clay loam	12-20%	Severe	Severe	Severe	Severe	Fair	III
110E	Dixonville silty clay loam	20-35%	Severe	Severe	Severe	Severe	Fair	IV
115C	Glengary silt loam	2-12%	Severe	Severe	Severe	Severe	Fair	III
115D	Glengary silt loam	12-20%	Severe	Severe	Severe	Severe	Fair	IV
115E	Glengary silt loam	20-35%	Severe	Severe	Severe	Severe	Fair	VI
115E	Darby silt clay loam	12-30%	Severe	Severe	Severe	Severe	Fair	IV
120D	Nonpareil loam	12-30%	Severe	Severe	Severe	Severe	Fair	VI
125E	Nonpareil-Oakland complex	30-35%	Severe	Severe	Severe	Slight	Fair	VII
125F	Nonpareil-Oakland complex	35-60%	Severe	Severe	Severe	Slight	Fair	VII
127E	Dickerson loam	30-60%	Severe	Severe	Severe	Severe	Poor	VII
131C	Oakland silt loam	3-12%	Severe	Moderate	Severe	Slight	Good	III
131D	Oakland silt loam	12-20%	Severe	Severe	Severe	Moderate	Good	IV
131F	Oakland silt loam	30-50%	Severe	Severe	Severe	Severe	Good	VI
135D	Oakland-Nonpareil-Sutherlin complex	12-20%	Severe	Moderate	Severe	Slight	Good	IV

140D	Oakland-Sutherlin complex	12-20%	Severe	Severe	Severe	Moderate	Good	VI
141C	Oakland-Dupee complex	3-12%	Severe	Moderate	Moderate	Moderate	Good	III
150E	Philomath silty clay	20-35%	Severe	Severe	Severe	Moderate	Fair	VI
155D	Philomath-Dixonville complex	12-20%	Severe	Severe	Severe	Moderate	Fair	IV
155E	Philomath-Dixonville complex	20-35%	Severe	Severe	Severe	Moderate	Fair	VI
155F	Philomath-Dixonville complex	35-60%	Severe	Severe	Severe	Severe	Fair	VI
165F	Philomath-Edenbower complex	35-60%	Severe	Severe	Severe	Severe	Fair	VI
170F	Lithic Eerurthents-Rock outcrop complex	35-60%	Severe	Severe	Severe	Severe	Poor	VIII
175C	Sutherlin silty clay loam	3-12%	Severe	Severe	Severe	Severe	Good	III
175D	Sutherlin silty clay loam	12-20%	Severe	Severe	Severe	Severe	Good	IV
180D	Speaker loam	12-20%	Severe	Severe	Severe	Severe	Good	VI
180E	Speaker Loam	20-35%	Severe	Severe	Severe	Severe	Fair	VI
180F	Speaker loam	35-70%	Severe	Severe	Severe	Severe	Fair	VII
220E	Witzel Variant gravelly silty clay loam	20-35%	Severe	Severe	Severe	Severe	Fair	VII
225F	Bateran silt loam	30-60%	Severe	Severe	Severe	Severe	Fair	VI
265E	Rosehaven loam	20-35%	Severe	Severe	Severe	Severe	Fair	VI
270E	Rosehaven loam	20-35%	Severe	Severe	Severe	Severe	Fair	VI
1110 E	Dixonville silty clay loam	30-45%	Severe	Severe	Severe	Severe	Fair	VI

Forest Site Class

Forest land soils in the Roseburg area have been inventoried and identified according to criteria established by the United States Department of Agriculture, Soil Conservation Service, Soil Interpretations for Oregon. Forest site class is determined by the potential growth rate of a dominate or co-dominate species of commercial tree, such as Douglas-fir. Site Class I will produce trees of 186 feet or more at the age of 100 years; those on Site Class 2 soils will reach heights of 156 to 185 feet; those on Site Class 3 soils, heights of 126 to 155 feet; and those on Site Class 4 soils, heights of 96 to 125 feet.

The accompanying Forest Site Class Map, found in the map pocket at the back of this document, reveals that there are relatively few areas in the Roseburg vicinity with

soils suitable for forest use. There are no Site Class 1 soils, and only a small area of Site Class 2 soils which are located about five miles to the northwest of Roseburg. Within the Urban Growth Boundary some small and widely scattered pockets of Site Class 3 and 4 soils have been identified, but most of these are on land already in urban use or committed to urban use.

Based on the forest site class inventory, it is concluded that there are no forest lands suitable for commercial forest use within the Roseburg urban growth boundary.

OR-SOILS-1 12/72
FILE CODE SOILS 12

SOIL INTERPRETATIONS FOR OREGON

U.S.D.A. SOIL CONSERVATION SERVICE

DATE: November, 1973 RCH

ROSEBURG SERIES

SOILS: 1. Roseburg loam, 0-3% slopes

The Roseburg series consists of well drained loam over clay loam soils formed in alluvium on low stream terraces with slopes of less than 3 percent. All areas are cultivated. Elevations range from 100 to 1000 feet. Average annual precipitation ranges from 30 to 60 inches. Average annual air temperature is 51 to 53 degrees F. and the frost-free period is 160 to 200 days.

Typically, the surface layer is very dark grayish-brown loam about 10 inches thick. The subsoil is dark brown clay loam about 40 inches thick. The substratum is loam or sandy loam. Depth to bedrock is over 60 inches.

Permeability is moderate. Surface runoff is slow and erosion hazard is slight. Rooting depth is more than 60 inches. The available water holding capacity is 8 to 12 inches.

Roseburg soils are used for irrigated truck crops, orchards, grass seed, small grains, forage crops and homesites. They occur in the Umpqua Valleys of the Willamette Valley Land Resource Area (A2).

(Classification: Pachic Ultic Argixeroll, fine, loamy, mixed, mesic family)

ESTIMATED SOIL PROPERTIES

DEPTH FROM SURFACE (in.)	CLASSIFICATION			COARSE FRACT. OVER 3 IN.	% OF MATERIAL PASSING SIEVE				1/ LIQUID LIMIT	PLASTICITY INDEX	PERMEABILITY (in/hr)	AVAIL. WATER CAP. (in/in)	SOIL REACTION (pH)	SHRINK SWELL POTENTIAL
	USDA TEXTURE	UNIFIED	AASHO		#4	#10	#40	#200						
0-10	Loam	ML	A-4	0	85-100	80-100	70-95	50-75	30-40	5-10	0.6-2.0	.14-.18	5.6-6.0	Low
10-50	Clay loam or loam	CL	A-7	0	85-100	80-100	70-100	55-80	41-45	15-25	0.6-2.0	.16-.21	6.1-6.5	Low
50-60	Sandy loam	SM	A-2, A-4	0	85-100	80-100	50-70	25-40	Non-plastic		2.0-6.0	.11-.16	6.1-6.5	Low

DEPTH (in.)	CONDUCTIVITY (mmhos/cm)	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION FACTORS K	EROSION FACTORS T	WIND EROD. GROUPS	FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (ft.)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	HYDROLOGIC GROUP
0-10	-	Mod.	Mod.	-	-	-	None	-	-	>6	-	-	B
10-50	-	Mod.	Low	-	-	-							
50-60	-	Low	Mod.	-	-	-							

CEMENTED PAN DEPTH (in.)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (in.)	BEDROCK HARDNESS	FROST ACTION	REMARKS
-	-	>60	-	-	

SANITARY FACILITIES AND COMMUNITY DEVELOPMENT

USE	SOIL	RATING	RESTRICTIVE FEATURES
SEPTIC TANK ABSORPTION FIELDS	1	Moderate	Percolates slowly
SEWAGE LAGOONS	1	Moderate	Seepage 2/
SANITARY LANDFILL (TRENCH)	1	Severe	Seepage 2/
SANITARY LANDFILL (AREA)	1	Severe	Seepage 2/
DAILY COVER FOR LANDFILL	1	Fair	Too clayey
SHALLOW EXCAVATIONS	1	Moderate	Too clayey
DWELLINGS WITHOUT BASEMENTS	1	Moderate	Low strength
DWELLINGS WITH BASEMENTS	1	Moderate	Low strength
SMALL COMMERCIAL BUILDINGS	1	Moderate	Low strength
LOCAL ROADS AND STREETS	1	Severe	Low strength

SOURCE MATERIAL AND WATER MANAGEMENT

USE	SOIL	RATING	RESTRICTIVE FEATURES
ROADFILL	1	Poor	Low strength
SAND	1	Unsuited	Excessive fines
GRAVEL	1	Unsuited	Excessive fines
TOPSOIL	1	Fair	Too clayey
POND RESERVOIR AREA	1	Moderate	Seepage 2/
EMBANKMENTS DIKES AND LEVEES	1	Moderate	Low strength
DRAINAGE	1		Not needed
IRRIGATION	1	Good	Favorable
TERRACES AND DIVERSIONS	1		Not needed
GRASSED WATERWAYS	1		Not needed

CONTINUATION SHEET OR-SOILS-1 12/72 ROSEBURG SERIES

RECREATION

USE	SOIL	RATING	RESTRICTIVE FEATURES	USE	SOIL	RATING	RESTRICTIVE FEATURES
CAMP AREAS	1	Slight		PLAYGROUNDS	1	Slight	
PICNIC AREAS	1	Slight		PATHS AND TRAILS	1	Slight	

CAPABILITY AND PREDICTED YIELDS - CROPS AND PASTURE (HIGH LEVEL MANAGEMENT)

SOIL	CAPABILITY		Pasture (AUM)		Alfalfa Hay (Tons)		Bush Beans (Tons)		Winter Wheat (Bu)						REMARKS
	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	NIRR	IRR	
1	I	I	7	16	-	8	-	6	90						

WOODLAND SUITABILITY

SOIL	POTENTIAL PRODUCTIVITY		WOOD SUIT. GROUP	MANAGEMENT PROBLEMS					NATIVE SPECIES
	SPECIES	SITE INDEX		EROSION HAZARD	EQUIPMENT LIMIT.	SEEDLING MORTALITY	WINDTHROW HAZARD	PLANT COMPET.	
	None								

WINDBREAKS

SOILS	SPECIES	HT. AGE 20	PERFOR-MANCE	SPECIES	HT. AGE 20	PERFOR-MANCE	SPECIES	HT. AGE 20	PERFOR-MANCE
	None								

WILDLIFE HABITAT SUITABILITY

SOIL	POTENTIAL FOR HABITAT ELEMENTS								POTENTIAL AS HABITAT FOR:			
	GRAIN & SEED	GRASS & LEGUME	WILD HERB.	HARDWD TREES	CONIFER PLANTS	SHRUBS	WETLAND PLANTS	SHALLOW WATER	OPENLAND WILDLIFE	WOODLAND WILDLIFE	WETLAND WILDLIFE	RANGELAND WILDLIFE
1	Good	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor	-

RANGELAND

RANGE SITE NAME	SOIL	KEY SPECIES AND % COVER	POTENTIAL YIELDS		NORMAL SEASON	
			TOTAL lb/Ac	USABLE Ac/AUM	GROWING	GRAZING
None						

FOOTNOTES

1/ Based on soil characterization data from SCS Riverside, California laboratory, samples 559 Oreg. 10-6 and 7.

2/ Permeability of substratum is rapid.

WATER RESOURCES

Roseburg is situated very nearly in the middle of Umpqua River Basin. Geologically, the Umpqua Basin is quite complex in that it includes four distinct physiographic provinces. These are the Klamath Mountains in the southern portion, the intermountain lowlands in the central portion, the Coast Range in the western portion and the Cascade Mountains along the eastern edge. With the exception of the Coast Range, the other three provinces play a direct role in water resource quality for the immediate Roseburg vicinity.

The hydrolic characteristics of the basin are directly related to the geologic conditions and, as a result, are also quite variable. The metamorphosed sedimentary and igneous rocks of the Klamath Mountains have poor hydrologic characteristics. The rugged terrain and steep slopes of these mountain provinces, along with the low porosity and permeability of the bedrock and soils materials, results in a considerable amount of runoff with very little precipitation entering the groundwater system. This geologic condition is the primary cause of the dramatic seasonal fluctuation of the South Umpqua River, although the activity of man, particularly logging, has compounded the situation to some degree.

The younger volcanic rocks of the Cascade Range are relatively porous and permeable and allow recharge of the ground water system through percolation of rainfall and snowmelt downward to the ground water table. This geologic condition accounts for the high quality and relatively stable stream flow of the North Umpqua River.

The intermountain lowland, which surrounds Roseburg, consists primarily of older river terrace deposits and recent floodplain and terrace alluvium. The hydrologic characteristics within this province are controlled by variations in thickness of alluvial deposits, sediment size, degree of cementation, and extent of weathering; and tend to be
quite variable. Stream flow of tributaries in the Roseburg region shows considerable seasonal fluctuation. During winter and spring months, the streams receive surface runoff as well as local, intermediate and regional ground water discharge. In the summer and fall months, however, stream flows of the numerous creeks around

Roseburg drop drastically. They receive very little from secondary tributaries, and the ground water falls to a level where there is little or no discharge into stream channels.

Substantial seasonal variations in the runoff patterns of the Umpqua Basin exist. The North Umpqua River, as measured at Winchester, contributes an average annual yield of 2.7 million acre feet and the South Umpqua River, as measured at Brockway, has an average annual yield of 2.1 million acre feet. Fluctuation of stream flow in both the North Umpqua and South Umpqua Rivers can have significant impact on the Roseburg
urban area. The North Umpqua River is the source for two major domestic water systems in the urban area; the Roseburg Municipal system at Winchester and the Umpqua Basin Water Association system at Brown's Bridge in Garden Valley.

An analysis of stream-flow records indicates that minimum stream flow requirements represent the greatest problem during the month of September. During September it is estimated that the North Umpqua River falls below the flow minimums established by the state about 40 percent of the time. Although this condition reduces the dependability of the supply to meet peak demands, it probably doesn't represent a serious
drawback in the foreseeable future since peak demand occurs in August when minimum flow requirements are met over 95 percent of the time.

Stream-flow in the South Umpqua River is also significant to the future growth of the urban area. While it does not presently represent a source of domestic supply in the urban area. the South Umpqua does serve as the discharge carrier for the areas wastewater treatment facilities. Fluctuation of stream flow is directly related to the level of water quality. During low flow periods (late summer and early fall) effluent discharge increases the river's Biochemcial Oxygen Demand (BOD), coliform bacteria count, and phosphorous levels, all of which contribute to lowering the water quality.

As the urban area population grows, and total discharge of treated effluent increases, the South Umpqua flow will be augmented. Average summer effluent discharge to the South Umpqua River by 1997 has been projected at 5.9 million gallons per day (mgd); an increase of approximately 3 MGD.* Since municipal water supplies are diverted from

the North Umpqua River, most of this discharge represents "new" water to the South fork (some of the discharge originates from ground water in the sub-basin, however).

*Roseburg Urban Area Wastewater Facilities Plan

Water Quality

The Department of Environmental Quality has developed a Water Quality Management Plan for the Umpqua River Basin which satisfies the requirements of Section 303(e) of PL 92-500 (Federal Regulations) in accordance with applicable provisions of Oregon Law (ORS Chapter 468). The general objective of this plan is to preserve and enhance water quality in the water basin and to provide for the beneficial uses of the water resource while preserving the health and general welfare of the people and quality of the environment. As with air quality, most effort has gone into data collection, with less concentration on the assessment of that data. The monitoring of the water quality in these streams resulted in the following findings:

Water Temperature: High temperatures are common in the mainstream Umpqua River system and tributaries extending from June through October. The temperature rises are the result of solar heating on diminishing flows.

Dissolved Oxygen Saturations: The dissolved oxygen standard for the Umpqua River Basin calls for 90% saturation during the seasonal low (summer period) and 95% of saturation during the remainder of the year. These standards are generally met except on occasions when the standards are violated by one or more percent of the established value. Some technical violations occurred during the summer period when the samples were collected in the early morning hours when the oxygen tension is normally low. Dissolved oxygen concentrations dropping temporarily below the 90% saturation level during the summer period is not known to stress salmonids or other forms of aquatic life.

Turbidity: Turbidity in water is caused by the presence of suspended matter such as clay, silt, plankton, and finely divided organic matter. The turbidity levels in the Umpqua River system and tributaries are generally related to flow. During periods of low

flow, the low levels of turbidity in the rivers are predominantly composed of plankton, giving the waters a light greenish hue. During the rainy season, the turbidity is mainly of silt origin resulting from erosion.

MPN Coliform Bacteria: The standards for the coliform group of bacteria in the river basin within the study area is (MPN) 1,000 organisms/100 ml of sample.

The coliform group of bacteria is ubiquitous in the environment, being present in the intestinal tract of all warm-blooded animals, in soil, and on vegetation. Coliform organisms are almost always presenting water to some degree, even in areas absent of human activities. These bacterial populations are generally higher in concentration during
periods of wet weather. They are believed to be associated with land wash runoff.

The coliform standards were occasionally exceeded during the dry weather period in the North Umpqua River and mainstream Umpqua River.

The MPN coliform populations are usually above 1,000 organisms/100 ml of sample on a year-round basis in the South Umpqua River at Melrose Road Bridge. The Roseburg and North Roseburg Sanitary District sewage treatment plants respectively discharge effluent about one and three miles upstream from this sampling point. Whether or not the general rise in the coliform populations results from the treated effluent, re-growth of these organisms in the river, non-point sources or through all of these processes, is unknown.

pH: The Umpqua Basin standard for pH is between 7.0 and 8.5. This in stream standard is generally met in the Umpqua River system and tributaries, except during periods of high flows when the pH falls slightly below 7.0. On occasion, the pH may rise above 8.5 as the result of algal blooms.

Chloride: The Umpqua Basin chloride (CI) standard is 25 mg/l. On occasions this standard was exceeded in the South Umpqua River during the dry weather season only.

Total Dissolved Solids: The Umpqua Basin standard for total dissolved solids (TDS) is 100 mg/l. This standard is occasionally exceeded in the North Umpqua River, and mainstream Umpqua River. During the dry weather period. the TDS in the South Umpqua River often exceed 100 mg/I. All except one of the observed TDS in the basin's waterways was below 200 mg/l during the dry weather period. The lower TDS concentrations present in the North Umpqua River as compared to that in the South Umpqua River and tributaries to the Umpqua River mainstream result from the difference in regional geology within these areas. The relatively low TDS contents in the mainstream Umpqua River result from longer flow in the North Umpqua River diluting South Umpqua River water as well as tributary flows from the lower basin. During periods of rain and snowmelt when surface runoff constitutes a large part of these base flows, the tributaries and Umpqua River system will generally meet the established standard. However, some high TDS ranging from 300 mg/l - 590 mg/] have been observed during the wet weather period when the total solids and suspended solids contents were also high. The TDS content is determined from the difference between total and suspended solids. Thus, at times of high sediment transport, a portion of the dissolved solids content may have included particulates and other dissolved constituents associated with land wash runoff, possibly giving a higher than actual TDS value.

Dissolved Chemical Substances: Of the chemical constituents present, chloride and total dissolved solids have been the only substances analyzed on a regular basis in the Umpqua Basin. Currently, all of the dissolved constituents are normally analyzed in water supply samples except for boron. No conclusions, however, can be drawn from the limited data collected to date relative to the adequacy of the heavy metals standards.

Stream Classification

The Department of Environmental Quality previously classified the lower 52 miles of the South Umpqua River as water quality limiting in response to EPA requirements. This classification meant that application of EPA designated Minimum Effluent

Standards for point source would not be sufficient to ensure that satisfactory water quality and water quality standards compliance would be achieved and maintained in the future.

Achievement of secondary treatment or equivalent control over municipal and industrial waste sources within the Umpqua Basin has not resulted in a quality of water that will meet the established standards on a sustained basis. As previously noted, most of the basin's streams generally meet the established water quality standards except for seasonally low and high pH levels in all waterways, and high MPN total coliforms in the South Umpqua River at Melrose on a year-round basis. High flows cause the pH to fall below the standard between November and May and algal blooms occasionally cause the pH levels to exceed the standard during the summer period. The probable cause of high coliform concentrations in the lower South Umpqua River could be from treated municipal effluent or re-growth of the organisms in the river, or combinations of these two possible sources.

The distribution of flow in the basin's waterways varies greatly through the seasons, being high in the winter and low in the summer. Two undesirable water quality conditions result when these extremes in flow occur. Land wash runoff causes high turbidities during the winter flows. Solar heating on diminished flows during the summer warms the water above that desirable for salmonids and other organisms preferring cold water conditions. These two water quality standards--turbidity and temperature--were written with the knowledge that the natural processes of the hydrologic cycle would govern the variations of both parameters. Thus, these standards were written to allow little or no increase in either temperature or turbidity due to the activities of man during critical flow periods.

In view of the above, the waterways in the Umpqua Basin should be classified for future management purposes as water quality limiting. This acknowledges the fact that in spite of achieving the best practicable treatment of point source waste loads in the basin, certain parameters will not meet the established water quality standards or be within desirable limits.

Groundwater Resources

The foregoing discussion of water resources has concentrated primarily on surface waters. This is because of the importance of this resource as the urban area's source of supply for domestic and industrial use, and because it serves as the carrier for the urban area treated effluent. However, subsurface, or groundwater resources must also be considered. Groundwater flows through layers of water-bearing rock called aquifers. The groundwater supply is replenished at recharge areas where precipitation or surface water percolates into the soil. If the overlying soil or subsoil becomes contaminated by domestic or industrial wastes, the groundwater may also become contaminated. Subsurface water is capable of traveling long distances and contamination at one location may affect the quality of a groundwater source many miles away. While groundwater does not represent a direct source of supply in the urban area, contamination of the resource here can have an adverse impact on the quality of subsurface sources in outlying rural areas where wells are used extensively.

Domestic wells serve as the primary indicator of groundwater quality and quantity in a particular area. Due to the availability of water from the two public systems serving the Roseburg urban area, most existing wells have been abandoned, or are only used for seasonal domestic irrigation; thus, there is very little current data on groundwater resources in the urban area. Geo-hydrologic studies done by USGS indicate groundwater resources in central Douglas County vary widely in both quantity and quality.[1] USGS data indicates, however, no discernible change in either the availability or potability of subsurface sources. The USGS study was compared to the Environmental Protection Agency (EPA) water quality standards. No significant deficiency in groundwater quality was identified. While users of subsurface sources may accept water quality which would be objectionable in public water systems, some quality factors such as hardness and odor often require treatment by softeners and aeration.

Population projections prepared by the Douglas County Planning Department show increases in rural populations outside the Roseburg urban growth boundary. As discussed in the Public Facilities and Services Element of this Plan, the rural area to the

[1] USGS: Availability of Groundwater, Douglas County, Oregon.

west of Roseburg is served by Umpqua Basin Water Association, while the rural area to the east is served by Dixonville Water Association. Future rural growth in these areas will probably be served by the two rural water associations, thus minimizing demand for the subsurface resource. On the other hand, this rural growth will increase the number of septic systems, increasing the potential for groundwater pollution.

It is anticipated that the bulk of future water demand in central Douglas County, including the Roseburg urban area, will continue to be satisfied by surface water sources. Groundwater, however, will continue to be an important resource for agriculture and rural domestic use in areas where public water is not available. The need for continued protection of this valuable natural resource cannot be overstated.

AIR QUALITY

For many years, Roseburg's main industrial activity has been linked with lumber and lumber products manufacturing. In decades past, a number of sawmills were located in and near the city. As was the custom of the era, wigwam waste burners were a common fixture at each mill site for the elimination of wood wastes from the mill. Steam generators at most plants used wood-fired (hog fuel) boilers but no pollution control devices. As a result, wood smoke and associated particulate from milling operations were a consistent problem during times of air stagnation.

Economic factors, fires, and competition for available timber caused a decrease in the number of mills in the area. Changes in the utilization of wood residues and, more recently, implementation of state emission standards has eliminated most wigwam waste burners and has required particulate control equipment on boiler plants. Currently, annual timber products production is far greater than in the past, but the quality of air in the urban area is higher.

Enactment of the 1970 Federal Clean Air Act Amendments by Congress required the various states to submit implementation plans which would delineate the means they would use to meet the ambient air standards set forth in the Federal regulations. Table NR-3 lists the Federal Standards and the State of Oregon standards for those pollutants of primary concern.

The State of Oregon's air quality program is directed toward meeting air quality standards adopted by the Federal Government and the State of Oregon. These standards have been adopted to protect the public health and welfare from known adverse effects of air pollution. The standards are divided into primary standards, designed to protect the public health, and secondary standards, intended to protect the public welfare from effects such as visibility reduction, soiling, nuisance and other forms of damage. Table NR-4 describes various air pollutants and their effects.

TABLE NR-3
AMBIENT AIR QUALITY STANDARDS FOR OREGON

Pollutant	Averaging Time	Federal Standards Primary (Health)	Federal Standards Secondary (Welfare)	Oregon Standards
Total Suspended Particulate	Annual Geometric Mean	75 ug/mı*	60 ug/mı	60 ug/mı
	24 hours(1)	260 ug/mı	150 ug/mı	150 ug/mı
	Monthly (2)	-	-	100 ug/mı
Ozone(4)	1 hour	235 ug/mı(3)	235 ug/mı(3)	160 ug/mı(3)
Carbon Monoxide	8 hours(1)	10 mq/mı**	10 mg/mı	10 mg/mı
	1 hour (1)	40 mg/m'5	40 mg/mı	40 mg/mı
Sulfur Dioxide	Annual Arithmetic Average	80 ug/mı	-	60 ug/mı
	24 hours(1)	365 ug/mı	-	260 ug/mı
	3 hours	-	1300 ug/m	1300 ug/m
Nitrogen Dioxide	Annual Arithmetic Average	100 ug/mı	100 ug/mı	100 ug/mı
Hydrocaybons (Nonmethane)	3 hours(1) (6-9 a.m.)	160 ug/mı	160 ug/mı	160 ug/mı
Lead	Monthly	-	-	3 ug/mı
	Calendar	1.5 ug/mı	1.5 ug/mı	ı

NOTES:

* Micrograms of pollutant per cubic meter of air.
** Milligrams of pollutant per cubic meter of air.
(1) Not to be exceeded on more than one day per year.
(2) 24-hour average not to be exceeded more than 15 percent of the time.
(3) A statistical standard, but basically not to be exceeded more than an average one day per year based on the most recent three years of data.
(4) The federal standards were revised in February, 1979, and the state standard changed from photochemical oxidant to ozone in June, 1979.

Table NR-4
Air Pollutant Descriptions and Effects

Pollutant	What It Is	What It Is From	What Damage It Causes
Suspended Particulate	Solid and liquid particles of soot, dust, aerosols and fumes ranging from 0.1 to 100 microns and Averaging about 2 microns in size. (1 micron = 1/2540”)	Combustion sources, cars, Industry process losses, fugitive dust, field and slash burning and natural sources, such as ocean spray and wind-raised dust.	Aggravates chronic lung disease, heart and lung disease symptoms. Causes material damage and visibility reduction. visibility reduction.
Sulfur Dioxide	A colorless, pungent, irritating gas.	Oil and coal combustion and And industry process losses.	Aggravates asthma, heart and lung disease in the elderly, irritates lungs, is corrosive to metals and marble, and causes plant damage. marble, and causes plant damage.
Carbon Monoxide	A colorless, odorless gas that is highly toxic.	Incomplete combustion Sources, mostly cars.	Interferes with the blood’s ability to carry oxygen, causing heart difficulties, reduces lung capacity and impairs mental abilities.
Photo-Chemical Oxidants	Mostly consists of ozone which is a toxic gas.	Photochemical processes In the atmosphere by reaction between oxides of nitrogen and hydrocarbons in the present of sunlight.	Eye irritation, damage to lung tissue and lung function; material damage and plant damage.
Nitrogen	A reddish-brown gas, toxic in high concentrations	Formed by conversion of nitric oxide (from autos and combustion sources) and from industrial sources.	Increases chronic bronchitis and irritates lungs.
Hydrocarbons	A large family of compounds Pounds consisting of hydrogen and carbon.	Autos, evaporative fuel losses, industry and combustion processes	Hydrocarbons actively participate in oxidant formation and cause plant damage. Methane is produced naturally by decay of organic matter and is not significant in oxidant formation.

The standards cover the major pollutants of concern: Total suspended particulate (TSP) matter, sulfur dioxide (SO_2), carbon monoxide (CO), photochemical oxidants (POx) and nitrogen dioxide (NO_2).

The only air pollutant monitored in the Roseburg area is total suspended particulate (TSP) matter. At present, the other forms of pollutants do not constitute a significant problem in the urban area.

Although the only regularly monitored pollutant is TSP, a description of the major pollutants and their effects are included in this element.

In 1974, the Environmental Protection Agency (EPA) issued air quality regulations under the 1970 version of the Clean Air Act (P.L. 91-604) for prevention of significant air quality deterioration. These regulations established a scheme for protecting areas with air quality cleaner than the national ambient air quality standards. Under existing EPA regulations, “clean areas” of the nation can be designated under one of three "classes." Specified numerical "ambient increments" of net air pollution increases are permitted under each class up to a level considered to be significant for that area. Class I increments permit only insignificant air quality deterioration; Class 11 increments permit moderate deterioration; Class III increments allow for the greatest amount of deterioration, but in no case beyond the national air quality standards.

The Primary Abatement Area for the Roseburg vicinity covers about 45 square miles and generally corresponds to the area covered by the Roseburg Comprehensive Plan.

Suspended particulates are sampled at the Roseburg City Hall by high volume samplers. The Department of Environmental Quality (DEQ) collects the filters for weighing and calculating the percentage composition of each class of impurities. Suspended particulate data from the monitoring site is available for all quarters of the years 1970 through 1980.

Table NR-5 gives a summary of the suspended particulate sampling data collected at the Roseburg monitoring site. The table illustrates that significant emission reductions did occur between 1974 and 1975.

TABLE NR-5
Ambient Air Sampling Data, Roseburg
Suspended Particulate, ug/m5

Year	Days Exceeding Secondary Standard value	Days Exceeding Primary Standard Value	Annual Geo Metric Mean	Minimum Value	Maximum Value	Second Highest Value	Number of Samples
1970	3	0	50.6	15	231	223	106
1971	2	0	51.2	17	185	180	98
1972	2	0	59.3	21	222	162	88
1973	4	0	52.9	16	233	181	58
1974	4	1	64.7	16	263	258	57
1975	0	0	43.9	21	93	89	52
1976	0	0	51.0	16	140	121	70
1977	1	0	52.0	18	170	170	64
1978	0	0	51.4	13	104	103	60
1979	0	0	--		128	105	73
1980	1	0	46.0		157	137	60

The trend toward meeting the TSP standard has been attributed to eliminating or modifying the wigwam burners and industrial pollution control measures such as installing scrubbers on boilers. From all indications, it appears that this attainment of status will continue for TSP emissions. In 1977 Roseburg only exceeded the TSP standard one day, which is permissible under current regulations.

A microscopic analysis of the particulate samples which caused the violation of the secondary 24 hour standard in 1974 is shown in NR-6.

TABLE NR-6
PARTICULATE SOURCE CONTRIBUTIONS
OCTOBER 1974-ROSEBURG

Source	14 Oct. 1974	2 Oct. 1974
Automotive	7%	13%
Soil Dust	18%	44%
Wood Products	21%	5%
Agricultural Operations	54%	--
Oil Fuel Combustion		5%
Misc. Vegetable Debris		29%

Source: DEQ Air Quality Profile & Evaluation for Roseburg Primary Abatement Area.

These microscopic analysis results suggest that particulate from agricultural operations, soil or street dust, and the wood products industries are the most important contributors.

It was noted from an investigation of the U.S. Weather Bureau local climatological data that most all "highest value" samples were collected during times of virtually no precipitation. In addition, all of the highest values were obtained during the fall and winter months. During these times very calm winds with a temperature inversion can occur.

The Roseburg area, because of its topography and climatology, can and has experienced major thermal inversions--in effect, a temperature "lid" above the Basin, which prevents the rising of air currents, trapping them at or near ground level. The air which is trapped holds the pollutants from combustion of simple wood fires, of trash burners, and of the fuel within an engine; these pollutants can include particulate matter, sulfur oxides, nitrous oxides, and carbon compounds. When a temperature inversion occurs, it prevents these materials from escaping and causes air pollution problems. All major stationary emission sources within the Roseburg Primary Abatement Area are

considered in compliance with present EPA standards and no new major sources have been proposed for construction in the planning area. The major particulate emission sources are related to the wood products industry. This includes emissions from cyclone collectors, hog fuel boilers, and modified wigwam waste burners. All of these industrial sources have demonstrated compliance with applicable standards through either source test or visual observation.

Table NR-7 lists the major point source industrial particulate emissions in the Roseburg area. Table NR-8 lists the major non-industrial emission sources.

TABLE NR-7
Industrial Particulate Emissions in Roseburg

Basic Equipment		Annual Emissions	
Wood fired boiler		276	tons
Wood fired boiler		74	tons
Wood waste burner (modified wigwam)		41	tons
Veneer dryers (steam)		30	tons
Plywood/veneer air transfer systems (cyclones)		29	tons
Wood waste burner (modified wigwam)		29	tons
Sawmill air transfer system (cyclone)	Different	27	tons
Sawmill air transfer system (cyclone	Plant	17	tons
Sawmill air transfer system (cyclone	Sites	8	tons
		531	tons

TABLE NR-8
MAJOR NON-INDUSTRIAL EMISSION SOURCES IN ROSEBURG

Emissions Source	Annual	
Motor Vehicles-light duty	119	tons
Motor Vehicles-heavy duty	36	tons
Residential Space Heating	8	tons
Commercial Space Heating	10	tons
TOTAL	173	tons

Although the previous data is somewhat enlightening, the lack of information on other pollutants plus the dependence of relying on only one monitoring station for the entire urban area may be misleading. A study entitled "Survey of Oregon and Light Scattering Particles in Western Oregon" indicated photochemical oxidants or ozone concentrations above federal standards in the central Douglas County area.

In order to compile the necessary data to determine the level of all pollutants within the urban area, additional monitoring sites should be established with testing for a wider spectrum of pollutants. This would assist in determining total air quality throughout the urban area and impacts of land use decisions.

The problem is amplified by the failure to identify or calculate the "increment available" or capacity of the air shed to withstand pollutants before significant deterioration of air quality occurs. The Roseburg area is identified as having 0 to 100 percent of its "TSP increment" available. Table NR-9 shows the percent of "increment" available for other cities in Western Oregon.

TABLE NR-9
PERCENT OF CLASS 11 "INCREMENT" AVAILABLE

Location	Time Average of Increment	Percent of "Increment" Available	
		TSP	SO[2]
Portland	Annual	0 to 100[1]	100
Eugene-Springfield	Annual	0 to 100[1]	100
Medford-Ashland	Annual	0 to 68[1]	100
Grants Pass	Annual	53 to 100[1]	100
Roseburg	Annual	0 to 100[1]	100
Albany	Annual	0[2]	100
Salem	Annual	63 to 100[1]	100

[1] Percentage of "increment" available depends on specific location within defined area. Generally, heavily urbanized industrial areas have a lower percentage of increment available as compared to undeveloped areas.

[2] In the Vicinity of the Millersburg Industrial Area.
Source: DEQ 1977 Air Quality Report.

Footnote I implies that some areas in and around Roseburg may already have reached or be near their carrying capacity while other areas have significantly more capacity. This reasoning may also hold true for other industrialized areas of the central county area where no monitoring sites exist and violations of air quality standards cannot be detected. Areas such as Dillard and Riddle have heavy industrial sites and could be near the allowable "increment." Development should be evaluated as to the amount of pollutant discharged and the proximity to existing sources.

With the current level of detailed data and the lack of identified carrying capacity, the air quality carrying capacity of the Roseburg urban area can be described as that level of economic growth and development which can occur without violation of federal, state or local air quality standards. Implementation will depend on the DEQ permit system and monitoring program.

EMISSIONS FROM MOTOR VEHICLES

The DEQ Handbook for Environmental Quality Elements of Oregon Local Comprehensive Plans suggests a method for screening carbon monoxide (CO). This screening procedure was keyed to traffic since motor vehicle traffic causes anywhere from 80 to 90 percent of the CO generated in most urban areas. To determine the possibility of violations, traffic volume and speed for roads within the Roseburg planning area was inventoried (Table NR-IO). The is data was compared against the standards established by DEQ (Table NR-11).

Only one area was found to exceed the criteria for 1976, using traffic counts from 1977 and 1978; however, all areas were well below the 1983 criteria as amended by DEQ. The area which exceeded the screening standard was the intersection of N.E. Stephens and Garden Valley Blvd.

The indication that the standard for CO screening is exceeded at this location is independent of local weather conditions and actual traffic conditions and may only reflect isolated hourly and daily patterns of motor vehicle volume.

The 1983 projected volumes of traffic, used as the standard for comparison, are considerably higher than today's traffic; currently no area violates that standard. The Garden Valley Boulevard area would need to increase its traffic by 30 percent to violate the criteria.

TABLE NR-10
TRAFFIC VOLUMES

Location	AWDT*	Average Speed	1983 Standard for CO Screening
1-5 Roseburg-Garden Valley Road	23,100	55	(Standard not available)
Lookingglass Road-City Limits	2,074	40	
Melrose Road-Conn Ford	4,436	55	
Diamond Lake Blvd. at City Limits	12,000	35	
Newton Creek	4,727	25	
Stephens at Garden Valley	27,500	35 (but Slower)	
Garden Valley West of Stephens	20,166	30	
Harvard - 1-5 Overpass	23,000	30	
Garden Valley at Dogwood	20,062	35	
Stewart Parkway at Harvard	2,187	35	

SOURCE: Douglas County Public Works Department, Oregon Department of Transportation and Roseburg Major Street Traffic Safety Program

*Average Weekday Daily Trips

TABLE NR-11
VOLUME OF AUTOMOBILES WHICH MAY RESULT IN VIOLATION OF
THE 8-HOUR CARBON MONOXIDE STANDARD IN 1983

Standard - 10 mg/ml

Average Speed (MPH)	1976	1983 Volume of Autos (AWDT)
10		13,600
15		19,400
20	6,200	24,300
25	7,600	28,900
30	9,050	33,800
35	10,400	38,800
40	11,600	43,100
45	17,500	45,800
50		47,100
55		49,400

Based on the current traffic inventory, DEQ screening standards and the assumption that a 30 percent traffic increase will not occur within four (4) years, the roads within the Roseburg Planning area will not cause future violation of the eight-hour carbon monoxide standard.

NOISE

Roseburg, like all urban areas, experience the effects of noise generated by the myriad of activities occurring here. Autos, trucks, trains, aircraft, industrial operations, construction and residential activity all contribute to the level of noise area residents are subjected to. Noise can, and often does, seriously detract from the overall quality of our living environment.

The effects of noise are widespread. Excessive noise levels can interfere with communications, sleep and relaxation, one's ability to perform complicated tasks, and can be a source of annoyance and generally detract from the quality of life. Noise can

also effect property values, especially noise sensitive land uses such as homes, schools and hospitals.

Noise pollution is generally considered to consist of three components: a source or noise generator; a path of transmittance; and a receiver. The source-path-receiver relationship is the central concept to noise abatement strategies.

Noise abatement strategies which can effectively control noise pollution at the source include: reducing or avoiding increases in traffic density in noise sensitive areas; reducing or rerouting truck traffic; avoiding unnecessarily steep gradients, especially where trucks are likely to be involved; minimizing outside industrial activity; shielding or modifying industrial equipment with sound-dampening materials; and, the establishment and enforcement of local ambient noise standards.

Blocking the path along which excessive noise travels can also reduce its impact on the environment. The use of shields, baffles, and barriers (both natural and man-made) are effective ways of controlling noise. Noise reducing barriers such as walls and fences, buildings, trees and other vegetation, and the use of distance between source and receiver can greatly reduce the impact of noise.

The location and design of noise sensitive land uses such as residential neighborhoods is perhaps the most effective means of reducing noise impact on the receiver or person hearing the noise. Site planning can remove the hearer as far as possible from the source, although distance alone is not always the best solution. Site planning can, however, be utilized to place the hearer or receiver of noise behind structures such as parking garages, landscaping, and natural barriers such as hills or natural vegetation.

NOISE STANDARDS

The City of Roseburg has not adopted noise level standards, although the Public Nuisance section of the City code does prohibit "any loud, disturbing or unnecessary noise."

The Oregon Department of Environmental Quality has adopted noise level standards for various activities. The Noise Control Act of 1971 authorized DEQ, through the Environmental Quality Commission, to adopt and enforce statewide standards for noise control (OAR 340-35).

The standards presently in effect are contained in OAR 340-35-005 through 35-100 and are summarized as follows:

1. All new motor vehicles sold within Oregon must meet maximum allowable decibel limits. Vehicle categories include automobiles and light trucks, motorcycles, buses, snowmobiles and medium heavy trucks. Racing vehicles are exempt from this rule (OAR 340-35-025).

2. In-use motor vehicle emission standards are established and referenced to moving and stationary monitoring procedures. Road vehicles and off-road vehicles are included in this rule. Ambient standards for off-road recreational vehicles impacting adjacent noise sensitive property is also included in this rule (OAR 340-35-030).

3. Noise sources defined as industry and commerce must meet ambient noise standards measured at the nearest noise sensitive property. Noise sensitive property is defined as residences or other places where people normally sleep, schools, churches and libraries (OAR 340-35-030).

4. Airport noise control regulations are intended to prevent the creation of new airport noise impacts or the expansion of existing noise impacts to the extent necessary and practicable (OAR 340-35-045).

5. Noise control regulations for motor racing facilities and motor racing vehicles are intended to reduce impacts from these facilities on adjacent noise sensitive uses (OAR 340-35-040).

DEQ presently does not have a noise monitoring program in the Roseburg area. Individual investigations and spot checks are made upon receipt of a complaint. When a

violation of the statewide standard is encountered, enforcement action is initiated. Between 1973 and 1979 DEQ investigated 31 noise complaints in Douglas County of which 12 were in the Roseburg urban area. Table NR-12 provides a summary of noise complaints received by DEQ during that period.

TABLE NR-12
SUMMARY OF NOISE COMPLAINTS
ROSEBURG URBAN AREA
1973-1979

Source	Location
Rock Crusher	Fairgrounds
Industrial Motor	Roseburg/Wood Products Industry
Log Loader	Roseburg/Sawmill
Chip Blower	Roseburg/Sawmill
Log Trucks	Roseburg/Truck Shop
Log Loading & Cold Decking	Roseburg/Sawmill
Railroad Switching	Roseburg
Log Handling	Roseburg
Auto Racing	Fairgrounds
Motorcycles	Roseburg
Auto Racing	Fairgrounds
Motor Vehicle	Roseburg
Truck Traffic	Newton Creek Road
Rock Crushing	Fairgrounds
Mt. Nebo Construction	Mt. Nebo
Rock Quarry & Crushing	Kester Road
Auto and Motorcycle Racing	Fairgrounds
Motorcycle	Roseburg
Truck Traffic	Newton Creek Road

SOURCE:DEQ Southwest Regional Office, Roseburg

The majority of complaints listed in Table NR-12 were in response to point-source noise generators. Point-source noise is generated at a specific, identifiable location such as a rock quarry or an industrial mill. Although no comprehensive inventory of all potential noise sources within the Roseburg urban area has been conducted, the noise sources identified in Table NR-13 were noted and considered during the land use planning phase of the Comprehensive Plan.

TABLE NR-13
KNOWN NOISE SOURCES
ROSEBURG URBAN AREA

Source	Type of Noise
Roseburg Municipal Airport	Aircraft operation
Douglas County Fairgrounds	Auto racing
Interstate Highway 5	Auto and truck traffic
Southern Pacific Switching Yard	Train switching operation
Wood products mills (several)	Chippers, blowers and heavy equipment

The Roseburg Airport Master Plan identifies the noise potential of airport activities and establishes two Noise Exposure Forecast (NEF) boundaries around the airport; NEF-30 and NEF-40. The outer boundary (NEF-30) describes the area subject to a noise level equal to about 65dBA. Although current DEQ airport noise standards are based on a Noise Impact Boundary (NIB) of 55dBA, no NIB has yet been calculated for the Roseburg Airport. The Land Use Plan Map prescribes Industrial and Commercial designations on all urbanizable land surrounding the airport. Uses permitted within these two designations are not generally of a noise-sensitive nature.

Auto racing activities at the fairgrounds have historically produced high levels of noise which have impacted the adjacent residential area. Recently adopted standards for auto racing noise emissions should significantly reduce the adverse noise impacts of this activity. No urbanizable lands have been designated for residential use in the fairgrounds vicinity east of interstate 5.

Interstate 5 passes through the full north-south length of the urban area. The freeway represents a significant source of noise which can impact adjacent noise-sensitive land uses. Of the approximate fourteen miles of freeway frontage (both sides), less than one mile of frontage has been designated as urbanizable Residential.

The Southern Pacific switching yard is located in one of the oldest sections of the city and divides two older residential areas. Switching activity, particularly during evening hours, has prompted many complaints from residents in the area. Land surrounding the switching yard has gradually converted to commercial and light industrial uses, helping to create a buffer between the yard and the adjacent residential areas. This conversion trend is recognized and encouraged by the land use plan through the application of Commercial and Light Industrial designations around the switching yard.

The activities of wood products mills also represent a significant source of noise pollution in the Roseburg urban area. Three such mills are in locations where the potential for noise impacts on residential areas exists: Keller Lumber Company in Winchester; Hub Lumber Company south of Garden Valley Boulevard; and, Champion International in East Roseburg. These heavy industrial operations produce significant amounts of noise from saws, chippers, blowers and other heavy machinery. During the land use planning phase of the Comprehensive Plan, every effort was made to separate these operations from existing or planned residential areas. Wherever possible, buffers of Commercial and Light Industrial were placed around these major noise sources.

WILDLIFE

Many different species of wildlife exist in the Roseburg urban area-more than most people realize. Some are present because they have adapted to the urbanizing environment, others because large areas of open space have been retained, either intentionally or unintentionally. As a species with the ability to think, plan, and alter the environment in ways no other species can, man has responsibility for managing and protecting the environment and fish and wildlife resources in the public interest, now and for generations to come.

Wildlife has historically been plentiful and varied in central Douglas County. In prehistoric times, a profusion of animals such as camels, rhinoceros, three-toed horse (miohippus), saber-toothed tiger, giant ground sloth, bison, peccaries, and tapirs lived in the semi-tropical climate of the region.

When settlers arrived, they found an abundance of many species of animals inhabiting the grass lands and hard and soft wood forests of the area. The shorelines of the Umpqua River system were especially rich with wildlife.

Today, most of the native species have all but disappeared from the immediate Roseburg vicinity, unable to adapt to the environmental changes brought about by spreading urbanization. Of course some species, both desirable and undesirable, have adapted very well to the urban environment.

Roseburg, because of its unique geographic location, is affected by many environmental assets which make the area attractive to a wide range of wildlife. The South Umpqua River and its relatively undisturbed shoreline provides sufficient food, water and vegetative cover to accommodate a sizable wild bird and mammal population. Relatively mild winters make the South Umpqua and its environs ideally suited for year around habitation and nesting.

The hardwood forests, which cover the surrounding hills, have changed little since development first started occurring in the lower lying areas. The steepness of these hillsides, and the availability of flat land in the valleys, has left them relatively free from competition for agricultural and residential use. As a result, these wooded areas in and around the city provide ideal habitat for larger animals, especially deer.

Of course, the proximity of game such as deer poses special problems to many urban dwellers who suffer damage to flowers, shrubs, and vegetable gardens; however, when given the choice of removing the deer from the area or replanting with species less palatable to deer, most citizens opt for the latter course of action. This attitude reflects the recognition by many of the urban area's residents of the need to reduce conflicts between man and the other animals which share the urban environment.

In addition to natural habitats which remain in and around the urban area, the City of Roseburg has taken an active part in programs designed to conserve and enhance wildlife habitat. Stewart Park has incorporated wildlife habitat as one of its

major attributes. Nearly 2 1/2 miles of the north shoreline of the South Umpqua River, between Stewart Park and N.E. Stephens Street has been preserved as open space. This 40 acre green buffer along the river includes the Gaddis Park and Riverfront extensions of Stewart Park and provide excellent habitat for a large variety of wildlife. At the north end of Stewart Park 15 acres have been designated as a wildlife area.

With the exception of a large man-made fresh water pond and nature trail, the area has been left unimproved. The self-guided nature trail offers visitors an opportunity to experience and to learn something of the environment. The nature trail is about three-fourths of a mile long, with 13 stations to introduce the visitor to interrelationships between
wildlife and their habitat, plus the influence of the surrounding urban environment. The Stewart Park Wild Area is the product of cooperative efforts of the Umpqua Valley Audubon Society, Oregon Department of Fish and Wildlife, and the Roseburg City Parks Department.

Table NR-14 lists mammals found in and around the Roseburg urban area. Table NR-15 lists amphibians and reptiles and Table NR-16 lists bird life which can be found in Roseburg.

TABLE NR-14
MAMMALS FOUND WITHIN THE ROSEBURG URBAN AREA

Black-tailed Deer	Opossum
Columbian White-tailed Deer	Brush Cottontail Rabbit
Beaver	Blacktail Jackrabbit
Muskrat	Silver Gray Squirrel
Mink	California Ground Squirrel
Nutria	Bushytail Woodrat
Raccoon	Pocket Gopher
River Otter	Townsend Mole
Shorttailed Weasel	Vagrant Shrew
Striped Skunk	Long-eared Myotis (Bat)
Red Fox	Big Brown Bat
Gray Fox	Little Brown Myotis (Bat)

TABLE NR-15
AMPHIBIANS AND REPTILES
FOUND WITHIN THE ROSEBURG URBAN AREA

Pacific Tree Frog	Long-toed Salamander
Bull Frog	Northern Alligator Lizard
Common Garter Snake	Western Pond Turtle
Western Toad	Northwestern Garter Snake
Western Racer	Rough-skinned Newt

TABLE NR-16
BIRDS FOUND WITHIN THE ROSEBURG URBAN AREA

Common Loon	Red-shouldered Hawk	Common Snipe	Common Raven	Evening Grosbeak
Red-necked Grebe	Swainson's Hawk	Spotted Sandpiper	Common Crow	Purple Finch
Eared Grebe	Ferruginous Hawk	Greater Yellowlegs	Clark's Nutcracker	House Finch
Western Grebe	Golden Eagle	Long-billed Dowitcher	Black-capper Chickadee	Pine Siskin
Pied-billed Grebe	Bald Eagle	Western Sandpiper	Mountain Chickadee	American Goldfinch
Double-crested Cormorant	Marsh Hawk	Glaucous-winged Gull	Chestnut-backed Chickadee	Lesser Goldfinch
Great Blue Heron	Prairie Falcon	Bonaparte's Gull	Bushtit	Rufous-sided Towhee
Green Heron	Marlin	Rock Dove	White-breasted Nuthatch	Brown Towhee
Cattle Egret	American Kestrel	Mourning Dove	Red-breasted Nuthatch	Savannah Sparrow
Great Egret	California Quail	Screech Owl	Pygmy Nuthatch	Vesper Sparrow
Black-crowned Night Heron	Mountain Quail	Great Horned Owl	Brown Creeper	Lark Sparrow
American Bittern	Ring-nicked Pheasant	Barn Owl	Wrentit	Dark-eyed Junco
Whistling Swan	Turkey	Pygmy Owl	Dipper	Chipping Sparrow
Canada Goose	American Coot	Short-earned Owl	House Wren	Harris Sparrow
White-Fronted Goose	Killdeer	Anna's Hummingbird	Winter Wren	White-crowned Sparrow
Snow Goose	Barrow's Goldeneye	Rufous Hummingbird	Bewick's Wren	Golden-crowned Sparrow
Mallard	Bufflehead	Belted Kingfisher	Long-billed Marsh Wren	White-throated Sparrow
Gadwall	Oldsquaw	Common Flicker (R/sh)	American Robin	Fox Sparrow
Pintall	Ruddy Duck	Common Flicker (Y/sh)	Varied Thrush	Lincoln Sparrow
Blue-singed Teal	Hooded Merganser	Pileated Woodpecker	Hermit Thrush	Song Sparrow
Green-winged Teal	Common Merganser	Acorn Woodpecker	Western Bluebird	Lapland Longspur
American Wigeon	Turkey Vulture	Lewis Woodpecker	Townsend's Solitaire	Loggerhead Shrike
Northern Shoveler	White-tailed Kite	Yellow-bellied Sapsucker	Golden-crowned Kinglet	Starling
Wood Duck	Sharp-shinned Hawk	Halry Woodpecker	Ruby-crowned Kinglet	Hutton's Vireo
Redhead	Cooper's Hawk	Downy Woodpecker	Water Pipit	Yellow-Rumped Warbler
Ring-necked Duck	Red-tailed Hawk	Steller's Jay	Cedar Waxwing	Red-winged Blackbird
Canvasback	Rough-legged Hawk	Scrub Jay	Northern Shrike	Brewer's Blackbird
Lesser Scaup	Common Goldeneye	Townsend's Warbler	Brown-headed Cowbird	
MacGillivrary's Warbler	House Sparrow	Western Meadowlark		

Although there is quite a large variety of migratory birds which can be found in the urban area, especially along the river, Douglas County cannot be considered part of a significant migratory route. This is attributed to a lack of still water areas and wetlands necessary for resting and feeding. Southbound migrations divert easterly from the Willamette Valley to the Klamath Basin. The retention of undeveloped waterways and shorelines within the urban area is essential to the migratory birds which pass through the area or spend the winter here.

The Roseburg urban area contains important populations of hawks, owls, songbirds, small mammals, and numerous other nongame wildlife species. All of the nongame birds in southwestern Oregon are protected except for starlings and English sparrows.

The most important value of nongame wildlife is the non-consumptive use they provide. Numerous hours of bird-watching, photography and nature study are spent enjoying nongame wildlife. It is estimated that two-thirds of all wildlife use is non-consumptive. The satisfaction available in observing wildlife in the urban environment cannot be over-emphasized. Parks are extremely important, particularly in urban areas, because they provide the habitat for small nongame mammals and birds. The City of Roseburg's park department provides and maintains as extensive, rich and varied a selection of valuable nongame wildlife habitats as may be found in any city in Oregon.

Although not as visible as the birds and animals found in the urban area, fish constitute an important part of Roseburg's wildlife population. Fish, particularly the migrating salmon, played an important role as a food source for the indians who first lived in the area. When the white settlers arrived in the Umpqua Valley they quickly turned the abundant salmon into a valuable economic resource. Within a relatively short time: however, the migratory fish runs in the South Umpqua were depleted to a level where their commercial value was nil. This condition was brought about by a number of factors. Perhaps one of the most significant causes was the mining activity being conducted on the upper South Umpqua and its tributary streams.

Salmon and steelhead enter the river system from the ocean and migrate upstream to spawn in gravel beds. Unfortunately, these same gravel deposits provided the source for much of the gold found in the region and in the search for the precious metal, many miles of river gravel deposits were systematically destroyed. Other activities of man have also had detrimental effects on the region's aquatic wildlife. Past logging and agricultural practices have resulted in stream-bank disturbance and clearing which causes erosion and subsequent siltation of spawning beds. In addition to erosion resulting from removal of stream-side vegetation, this practice has also had the effect of raising stream temperature by solar heating. Elevated stream temperature is known to have an adverse effect on aquatic wildlife, particularly cold water species such as salmon, steelhead and trout.

Today, enlightened land use and conservation practices are helping to improve the aquatic habitats of the region. Current trends suggest that migratory fish populations are slowly increasing and the South Umpqua River is becoming a significant sport-fishing stream.

Warm water game fish, particularly smallmouth bass, which were recently introduced to the South Umpqua, also represent an increasingly important sport-fishing resource to the Roseburg area. Bass have had dramatic success in the South Umpqua primarily due to the abundance of nongame or rough fish which they feed on. However, it is expected that the bass population will level off eventually, as their presently bountiful food source is brought into balance.

Table NR-17 lists the various fish species commonly found in bodies of water in and around the immediate Roseburg vicinity.

TABLE NR-17

AQUATIC WILDLIFE COMMONLY FOUND IN THE ROSEBURG URBAN AREA

Chinook Salmon	Black Crappie
Coho Salmon	American Shad
Rainbow Trout	Cottids
Steelhead Trout	Dace
Smallmouth Bass	Pacific Lamprey
Bluegill	Northern Squawfish
Brown Bullhead	Redside Shiner
Yellow Bullhead	Largescale Sucker
Three-spine Stickleback	Catfish

As man expands his cities and suburbs, he immediately affects the environment of all wildlife. The larger mammals and birds in particular feel man's encroachment, as they require a larger territory to conduct the functions of their life cycles. In restricting this part of nature, man also restricts himself, in that he is a part of nature. The proper management of the land recognizes the fragility of wildlife and seeks to enhance conditions which provide space for man and for wildlife. Such management permits man to enjoy nature and to use it as a natural resource. In recognition of the delicate balance between the need to protect wildlife habitat and the need to provide for urban expansion, the Oregon Department of Fish and Wildlife has identified several sensitive wildlife habitats in and around the Roseburg urban area. The inventoried sensitive habitats include: 1) riparian vegetation along all watercourses, 2) gravel spawning bars in the North and South Umpqua Rivers, 3) a Blue Heron rookery on the South Umpqua River at the west end of Calkins Road, 4) a protected white-tailed deer habitat between Highway 99, Diamond Lake Boulevard and the North Umpqua River, 5) and the Stewart Park Wildlife Area. All identified sensitive wildlife habitats were given special consideration in the land use planning process and have been designated as open space wherever possible.

FINDINGS

Geology

1. The comprehensive planning area is situated atop an Eocene interbedded sedimentary formation which is nearly 8,000 feet thick.

2. In geologic terms, the area is stable. There are no known geological faults within the Roseburg urban area.

3. The only recorded earthquake in the area occurred in 1913. The relative lack of seismic activity in the Roseburg vicinity suggests little risk of such hazard in the future.

Mineral and Aggregate Resources

1. There is no record of significant mineral mining activity in the Roseburg vicinity.

2. Sand and gravel production ranks second in monetary value of mineral resources in Douglas County.

3. Sand and gravel, and crushed rock are the basic materials for the construction industry. An adequate supply of low-cost, good-quality aggregate is essential to the economic and physical development of the Roseburg urban area.

4. The nature of aggregate production often conflicts with other values. Air and water pollution, noise, land disturbance and general unsightliness is inherent in the industry.

5. There is a need to identify, develop and protect the area's aggregate resources from encroachments by other land use activities while minimizing the adverse aesthetic impacts of gravel and quarry operations.

Soils

1. Due to the general nature of soils and geologic mapping, site specific analysis is often necessary to determine the presence of geologic hazards and the severity of soil problems which are constraints to development. Such geologic hazards exist when certain combinations of slope, soil conditions and moisture conditions render land unstable.

2. The statewide agricultural goal definition is based upon the U.S. Soil Conservation Service's Soil Capability Classification System. The majority of buildable land in the Roseburg urban area is located on agricultural soils rated Classes I through IV and much of this area has already experienced urban development. The hillside soils are generally included in nonagricultural rated Classes V through VIII.

3. Most soils on buildable land within the planning area have severe shrink-swell characteristics which place limitations on development, but this limitation can be overcome with proper engineering and construction techniques.

4. Most soils on slopes in excess of 20 percent within the Roseburg urban area are subject to erosion when disturbed by development activities. Slumping or sliding hazards can be minimized by identifying areas subject to such hazards and through the employment of sound engineering and construction practices.

Water

1. Stream flow and water quality within the Roseburg vicinity is directly related to geologic conditions in the three physiographic hydolic provinces of central and eastern Douglas County.

2. Fluctuation of stream flow in both the North Umpqua and South Umpqua can have significant impact on the Roseburg urban area. The North Umpqua is the source for the two major domestic water systems in the urban area, while the South Umpqua serves as the discharge carrier for the area's wastewater treatment facilities.

3. The Department of Environmental Quality has developed a Water Quality Management Plan for the Umpqua River Basin which satisfies the requirements of Section 303 (3) of PL 92-500 and is in accordance with the provisions of ORS 468. DEQ is conducting studies to determine the carrying capacity of the Umpqua River system.

4. With the exception of low stream-flow during extreme dry periods, the North Umpqua River enjoys a high level of water quality. The South Umpqua River experiences a variety of water quality deficiencies; high temperature, turbidity, coliform bacteria, and dissolved oxygen. Low stream flow during the summer months accentuates these problems.

5. Groundwater sources within the Roseburg vicinity are generally adequate for individual domestic systems, but are not considered adequate to supply the demands of large multi-user systems.

Air

1 Historically, Roseburg has experienced periods of severe air pollution due to the concentration of lumber mills which produced wood smoke and associated particulate from various milling operations.

2. Within the last decade, the quality of the air in the urban area has improved significantly. This is primarily due to a reduction in the number of mills and the installation of pollution control devices on the existing pollution sources.

3. The State of Oregon's air quality program is directed toward meeting air quality standards which have been adopted to protect the public health and welfare from the known adverse effects of air pollution. The Department of Environmental Quality is responsible for enforcing air quality standards in the Roseburg planning area.

4. The only air pollutant monitored in the Roseburg area is total suspended particulate (TSP) matter. TSP monitoring indicates a trend toward improved overall air quality.

5. The Roseburg planning area is in a Class 11 Primary Abatement Area with 0 to 100 percent of its "TSP" increment" available. This implies that some areas in and around Roseburg may already have reached or be near their carrying capacity while other areas have significantly more capacity.

6. Based on current urban area traffic counts and DEQ screening standards, it has been determined that a 30 percent traffic increase would have to be experienced within the Roseburg planning area by 1983 before violation of the eight-hour carbon monoxide standard would occur. There is no indication that Roseburg will experience such a dramatic increase in traffic in that time period.

Wildlife

1. Roseburg, because of its unique geographic setting, is affected by many environmental assets which make the area attractive to a wide range of wildlife.

2. The South Umpqua River and the hardwood forests which surround the urban area provide ideal habitat for a wide variety of wildlife; offering sufficient food, water and cover.

3. The proximity of wildlife, such as deer, poses special problems in the urban environment and illustrates the need to reduce conflicts between man and the other animals which share the urban environment.

4. The City of Roseburg has taken an active part in programs designed to conserve and enhance wildlife habitat within the urbanizing area.

5. The most important value of nongame wildlife is the non-consumptive use they provide for such activities as bird watching, photography and nature study. The satisfaction available from sharing the urban environment with wildlife is significant to the overall quality of life in Roseburg.

6. The City's park system plays a particularly important role because it helps provide the habitat necessary for small non-game mammals and birds.

7. Fish constitute an important part of Roseburg's wildlife population. Some 18 species of fish have been found to inhabit the rivers and ponds in and around the City, including an increasing population of game fish such as salmon, steelhead, trout and bass.

8. Aquatic wildlife is particularly susceptible to the deterioration of water quality. Past activities, such as in-stream mining, removal of vegetation from river banks, logging activities and pollution of the water have all contributed to the deterioration of the river environment.

GOALS, OBJECTIVES AND POLICY STATEMENTS FOR NATURAL RESOURCES

Goals

1. Provide a healthy and attractive environment for the urban area population.

2. Maintain the benefits associated with environmental resources in an urban setting. Those resources include the land, clean air and water, tolerable noise levels, aggregate resources, wildlife and wildlife habitat, and vegetation. Recommendations directed toward these resources may differ depending upon whether they are located on urban, rural or urbanizable lands.

Objectives

1. To maintain the livability of the Roseburg urban area by considering the natural environment when making planning decisions.

2. To ensure that community goals relating to scenic quality, water quality, vegetation and wildlife, open space and recreational potential shall be given a high priority.

3. To continue to consider the need for protection of open spaces, including those characterized by significant vegetation and wildlife habitat. Means of protecting open space include, but are not limited to, outright acquisition, conservation easements, planned unit development ordinances, open space tax deferrals, donations to the public and performance zoning.

Policies

1. Future public capital improvements will be designed in consideration of climatic circumstances that may create hazards, inconveniences, or additional maintenance costs.

2. The City shall, at any time of the first major update (1987-1988), review those sites yet to be inventoried or fully determined for significance, using the Goal 5 process as required by OAR 660-16-000. The City Shall cooperate with local industry in identifying the location of aggregate resources within the urban growth boundary and shall periodically review and analyze the relationship of the demand for the resource and the amount available for extraction.

3. The need to protect identified aggregate resources from premature urban development shall be considered in all planning decision.

4. The City shall continue, through land use planning and special regulations, to control aggregate resource extraction and production in order to:
   a. Minimize negative effects on surrounding land uses and on other
   b. Require rehabilitation of expanded extraction and processing sites.

5. All extraction sites should be planned for reuse upon depletion of the resource and such reuse shall be consistent with the Comprehensive Plan.

6. The City arid County shall jointly develop and adopt ordinances and programs which carefully manage development on hillsides and in. water bodies in order to protect scenic quality, water quality, vegetation and wildlife values of those areas.

7. Development practices should avoid grading plans that expose unprotected surfaces from water flows and possible erosion.

8. Land form alterations proposed in areas with the following conditions should show that design and construction techniques eliminate public harm, public costs, and adverse effects to surrounding properties:
   -Slopes exceeding 13 percent;
   -Severe soil erosion potential;
   -Land subject to slumping or sliding.

9. Land related hazards such as erosion or soil exhibiting poor foundation potential should not necessitate disapproval of development.

10. The City shall cooperate with the Department of Environmental Quality in developing and implementing ongoing plans and programs necessary to assure compliance with adopted air quality standards, water quality standards and noise level standards.

11. The South and North Umpqua Rivers, Newton Creek and Deer Creek are major waterways that are scenic, recreational and natural resources of the community. They are, however, to be protected, preserved and maintained for their primary function as drainage courses first. Any measures taken to sustain their primary function shall minimize adverse impacts on scenic. Recreational and natural values.

12. Natural drainage courses, including major waterways, shall be regulated to control alteration, excavation, filling, realignment, clearing and all other actions that could affect their function or natural resource value.

13. The development of uses relating to the rivers for public recreation and scenic enjoyment should be encouraged.

14. Mature ground cover and trees, wildlife habitats and the natural contours of identified significant stream banks shall be preserved. This shall be accomplished with a setback of structural and any other physical development such as parking lots, retaining walls, channel alterations, etc.

from identified stream banks unless findings are made, after consultation with the Oregon Department of Fish and Wildlife, that any such activity:

a. Will not have a significant adverse effect on stream bank erosion, water temperature and quality, or wildlife; or

b. Is required for flood control and actions are taken to mitigate such impacts as much as is possible; or,

c. Is not required for flood control and will include all actions as are necessary to prevent or sufficiently mitigate any significant immediate or potential stream bank erosion, adverse effect on water temperature and quality, or wildlife.

15. Significant wildlife habitats shall be identified and managed in accordance with state wildlife management practices.

16. The Stewart Park Wildlife area will continue to be maintained as a wildlife area in accordance with the management agreement between the City and the Department of Fish and Wildlife.

17. Fish habitats shall be protected against extraction of stream materials. fillings, erosion, siltation, impoundments, removal of shoreline vegetation, and deteriorating water quality.

18. Public access to the North and South Umpqua Rivers for recreational purposes is desirable, and shall be considered in all planning decisions.

ECONOMIC ELEMENT

URBAN AREA

ROSEBURG

R

COMPREHENSIVE PLAN

ECONOMIC ELEMENT

Introduction

Nearly every aspect of the comprehensive planning process is in some way influenced by economic factors. Housing, land use, population growth, and the provision of public services are all subject to change due to fluctuations in specific sectors of the economy. The Economic Element; therefore, is an important part of Roseburg's Comprehensive Plan.

The Economic Element consists of two major sections. The first attempts to provide a realistic view of current economic conditions in the Roseburg urban area. These conditions are discussed in terms of economic indicators such as commercial and industrial activity, analysis of the labor force, unemployment problems, and general economic trends. The second section deals with future oriented issues such as commercial and industrial growth, manpower development, economic diversification, and the role of local government in shaping the urban area's economic future. In addressing the urban area's economy, consideration must also be given to the supply of, and demand for, human resources, energy, land and other natural resources, transportation, and public facilities. However, the treatment of these topics in the Economic Element is limited to the degree necessary to address the state economic goal, inasmuch as they are discussed at length in other elements of the Plan. The provision of adequate land for future economic growth is dealt with specifically in the Land Use Element.

Finally, it is important to understand that economic data for Roseburg and its surrounding urban area is somewhat limited. Past economic studies have been conducted on a regional or county-wide basis and generally do not focus on the urban area. Therefore, much of the analysis contained in this element is based on county-wide data, to which certain assumptions must be applied in order to obtain a reliable picture of the urban area's economy.

ECONOMIC INDICATORS

Labor Force and Employment

The labor force participation rate indicates the percentage of the total population over 16 years of age in the labor force. The classification includes all persons that are employed or unemployed, but seeking work, plus those persons in institutions--schools, hospitals, correctional institutions, etc.

Labor force statistics are computed by the Oregon State Employment Division and are reported on a county-wide basis. Official statistics for the Roseburg urban area are not available separately and therefore, must be estimated. Table E-1 provides a summary breakdown of key labor force indicators for Douglas County. It should be noted that these figures are for wage and salary workers only and do not include self-employed persons or professionals such as doctors, lawyers, and real estate sales people.

TABLE E-1
LABOR FORCE SUMMARY
Annual Average

	1980	1979	1978	1977	1976	1976-80 Percent of Change
Civilian Labor Force 1/	40,860	39,900	38,350	37,030	35,720	14.4
Unemployment	4,740		2,940	3,270	3,610	31.0
Percent of Labor Force	11.6	10.5	7.7	8.8	10.1	15.0
Total Employment 2/	36,120	35,710	35,410	33,760	32,110	12.4

NONAGRICULTURAL WAGE & SALARY EMPLOYMENT
(By Place of Work)

TOTAL	31,580	31,220	30,960	29,830	28,700	10
Manufacturing	10,600	10,590	10,650	10,510	10,370	2.2
Durable Goods	9,910	9,930	10,000	9,850	9,700	2.2
Lumber & Wood	8,850	8,900	8,990	8,goo	8,810	.5
Primary Metals	470	470	460	460	470	0
Other Durable Goods	590	560	550	490	420	40
Nondurable Goods	690	660	650	660	670	3
Food Products	170	150	150	150	140	21
Other Nondurable Goods	520	510	500	510	530	-2
Non-manufacturing	20,980	20,630	20,310	19,320	18,330	14
Contract Construction	1,450	1,400	1,330	1,300	1,270	14
Transp., Comm. & Utils.	1,370	1,360	1,350	1,290	1,230	10
Trade	5,760	5,620	5,540	5,300	5,050	14
Wholesale	700	700	690	630	580	20
Retail	5,060	4,920	4,850	4,660	4,470	13
Fin., Ins. & Real Estate	1,050	1,020	990	910	840	25
Service & Miscellaneous	4,340	4,280	4,220	3,900	3,590	21
Government	7,010	6,950	6,880	6,610	6,350	10

SOURCE: Oregon State Employment Division

1/ Includes employed and unemployed individual 16 years and older. Data are adjusted for multiple job holding and commuting.

2/ Includes nonagricultural wage and salary, self-employed, unpaid family workers, domestics, agriculture and labor disputants.

The growth of the labor force in Douglas County during the last five years has increased nearly twice as fast as the population. The county population increased 7.8 percent as it grew from 81,600 to 87,200 persons. In contrast, the labor force increased 14.3 percent as it expanded from 35,720 to 40,860.

All of the major employment sectors in the County increased during the 1976-80 time period. Total employment increased 12.4 percent, led by the non-manufacturing sector which increased by 14 percent. The largest gains were in the areas of wholesale trade (20%), finance, insurance and real estate (25%), and service oriented professions (21%). The smallest gains were seen in the manufacturing sector; particularly the wood products industry which experienced only a half percent increase in labor force participation.

While these figures cannot be directly applied to the urban area's labor force, certain assumptions can be drawn. Generally, urban areas in Oregon have a higher labor force participation rate than for the county as a whole, although the percent of the population which falls within the labor force tends to be smaller.

In 1970, Roseburg had a labor force of 5,623 persons, which totaled 39 percent of the City's population at that time. This compares to Douglas County's 1970 labor force of 29,510; constituting 41 percent of the population. In 1980, Douglas County's labor force made up 47 percent of the county population. If we assume Roseburg has experienced the same amount of growth as the county, we can estimate a labor force participation rate of about 45 percent.

There are two key factors which account for the increasing labor force participation rate. Both economic and social forces are drawing more and more women into the job market. In 1970, women made up 35 percent of the labor force in Douglas County. In 1977, 43 percent of the county's labor force was female, although this was still considerably lower than the State average of 48 percent. Continued enforcement of the Equal Employment Opportunities Act will help ensure a continued high female participation rate. The second major factor increasing the labor force participation rate is

the increasing percentage of the population which is of employable age. In 1970, 61 percent of the county population was between the age of 15 and 64. In 1980, the number of persons within this age group increased to an estimated 63 percent of the total population.

Employment opportunities are being created in Douglas County at a faster rate than the rate of population growth. The general rise in unemployment during the past decade can be explained, in part, by the increasing participation rate in the job market. Unemployment rates for Douglas County, Oregon, and the U.S. since 1960 can be compared in Table E-2.

The unemployment rate in Douglas County has experienced dramatic fluctuation over the last decade and has undergone an overall increase.

The fluctuations in the unemployment rate are mostly the result of employment fluctuations in the large lumber and wood products industry. Employment in the lumber and wood products industry corresponds quite closely to national housing construction activity. This relationship is illustrated in Chart E-1, which also shows the relationship of unemployment fluctuation. Again, separate statistics are not available for the Roseburg urban area. Nevertheless, some assumptions about the urban areas employment picture can be drawn.

TABLE E-2
UNEMPLOYMENT RATES 1960-1980
DOUGLAS COUNTY, OREGON, AND U.S.

Year	% of Douglas County Labor Force Unemployed	% of Oregon Labor Force Unemployed	% of U.S. Labor Force Unemployed
1960	7.1	4.9	5.5
1961	8.8	6.4	6.7
1962	5.9	5.5	5.5
1963	5.7	5.1	5.7
1964	5.0	5.0	5.2
1965	6.7	4.6	4.5
1966	7.6	4.2	3.8
1967	8.9	4.8	3.8
1968	6.1	4.4	3.6
1969	6.4	4.4	3.5
1970	7.9	5.9	4.9
1971	7.3	6.3	5.9
1972	6.4	5.9	5.6
1973	7.4	6.2	4.9
1974	9.4	7.5	5.6
1975	12.7	10.6	8.5
1976	10.0	9.5	7.7
1977	9.0	7.3	7.0
1978	7.8	6.0	6.0
1979	10.5	--	--
1980	11.4*		

*January 1980 only; annual average may be higher or lower.

SOURCE: Oregon State Employment Services Division

Although the urban area's economy is heavily dependent on the lumber and wood products industry, the economy is developing an expanded and varied base. An increasing percentage of Roseburg's labor force is employed in service and trade occupations which are not as venerable to seasonal or periodic fluctuations in the national economy. Between 1976
and 1980, the manufacturing sector added only 230 persons to the County's work force, while the non-manufacturing sector absorbed an additional 2,650 workers.

During the last several years, there have been a number of mill closures in central Douglas County which have idled 580 workers. Table E-3 lists mill closures by year and shows the number of employees displaced. Predictions of future employment trends forecast a gradually decreasing work force in the lumber and wood products industry in Douglas County over the next 20 years.[2] I While such a trend would significantly effect unemployment rates in the Roseburg urban area, its broader based economy should afford a fair degree of insulation from any rapid and dramatic downturns.

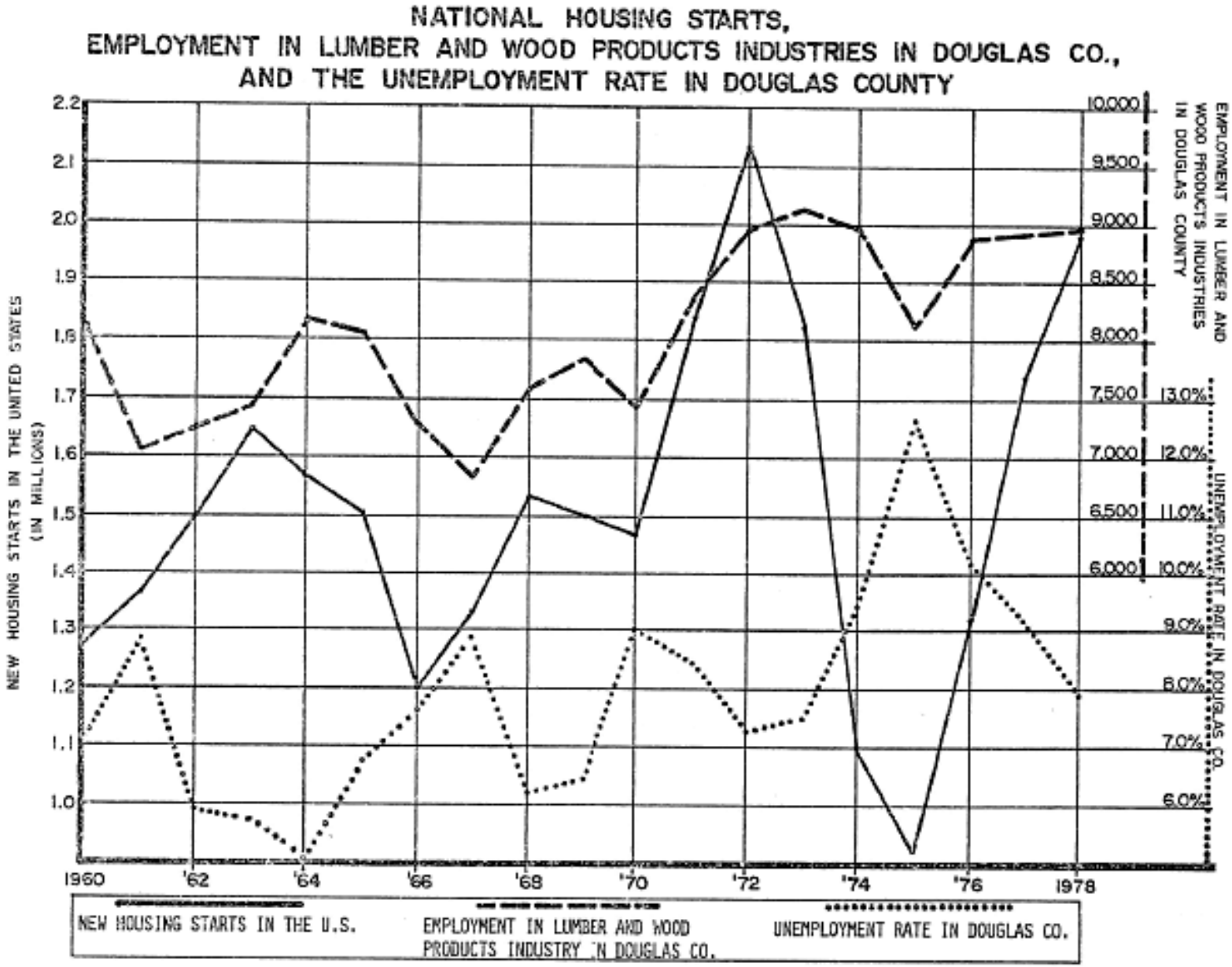
TABLE E-3
MILL CLOSURES IN CENTRAL
DOUGLAS COUNTY, 1977-79

Year	Mill	No. Employees Displaced
1977	Permaneer	200
1977	Hub Lumber Company	50
1978	Green Valley Lumber	105
1978	Smith River Lumber	105
1978	Champion Veneer	45
1979	Champion Building Products	75

SOURCE: Coos, Curry, Douglas Economic Development Association, 1979.

[2]Coos-Curry-Douglas Economic Improvement Association, Comprehensive, Economic Development Strategy, 1979-80 Action Program.

CHART E-1


NATIONAL HOUSING STARTS,
EMPLOYMENT IN LUMBER AND WOOD PRODUCTS INDUSTRIES IN DOUGLAS CO.,
AND THE UNEMPLOYMENT RATE IN DOUGLAS COUNTY
NEW HOUSING STARTS IN THE UNITED STATES (IN MILLIONS)
2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
EMPLOYMENT IN LUMBER AND WOOD PRODUCTS INDUSTRIES IN DOUGLAS COUNTY
10,000
9,500
9,000
8,500
8,000
7,500
7,000
6,500
6,000
UNEMPLOYMENT RATE IN DOUGLAS CO.
13.0%
12.0%
11.0%
10.0%
9.0%
8.0%
7.0%
6.0%
1960
'62
'64
'66
'68
'70
'72
'74
'76
1978
NEW HOUSING STARTS IN THE U.S.
EMPLOYMENT IN LUMBER AND WOOD PRODUCTS INDUSTRY IN DOUGLAS CO.
UNEMPLOYMENT RATE IN DOUGLAS CO.

Family Income

The level of family income in Douglas County is an important indicator of economic activity in the region. Income levels are important when determining demand for retail facilities, housing, recreational outlets, as well as determining tax revenues.

According to the U.S. Census, the median family income for Roseburg in 1970 was $9,754, while the median family income for Douglas County was $8,670. The latest median income figure available is for 1978 and is for Douglas County only. Therefore, an interpolation of Roseburg's 1980 figure must be drawn from the 1978 County median income of $15,312. Of course, to do so requires the acceptance of certain assumptions. First, we know that Roseburg's 1970 figure was 12.5 percent higher than that for the county. If we assume that the percentage difference has remained constant during the past decade, we can conclude that Roseburg's 1978 figure is also 12.5 percent above the county's 1978 figure. This then computes to an estimated 1978 median income of $17,226 for Roseburg, which is also higher than the median family income of 16,768 for Oregon.

The fact that levels of income in Roseburg are higher than the County and the State is indicative of the higher paying job opportunities in the wood products industry, as well as the higher skill levels and managerial positions that are present in the urban area and of the greater employment opportunities available for females as an additional wage earner in the family.

Table E-4 depicts Douglas County's average annual wages by industry in 1977. As in Table E-1, the figures are for wage and salary workers only, and do not include many professionals and self-employed persons. Douglas County's average annual wages are $354 more than the state average. Since the 1977 data were compiled, there have been several mill closures in the county. As employment in higher paying sectors of the local economy (lumber and wood products) continues to decline, the average annual wage levels within the county will probably experience a decline relative to the state as a whole.

Effective Buying Income Estimates

Effective buying income is defined in Sales Management Survey of Buying Power as that income which equals personal income (wages, salaries, interest, dividends, profits and property income) minus federal, state, and local taxes and is generally equivalent to the Federal Government's category of disposable personal income.

TABLE E-4
EMPLOYMENT AND ESTIMATED AVERAGE ANNUAL WAGES FOR
DOUGLAS COUNTY AND THE STATE OF OREGON BY INDUSTRY, 1977

	Douglas County		State of Oregon	
	Employees	Average Wage	Employees	Average Wage
Agriculture	195	$ 6,995	5,407	$ 8,408
Mining	290	16,807	1,787	15,303
Construction	10'370	14,337	42,696	14,869
Manufacturing	10,456	15,442	206,060	14,060
Transportation, Communication and Utilities	1,211	13,087	43,322	15,194
Wholesale	666	9,431	58,076	14,282
Retail	4,811	6,353	167,576	7,257
Finance, Insurance & Real Estate	739	9,124	47,884	10,279
Services	3,309	7,759	145,312	8,394
Government	6,025	11,530	i67,28o	12,412
All Industries	29,072	11,761	888,552	11,407

SOURCE: Oregon State Employment Services Division, April, 1979

Effective buying income (EBI) estimates are currently only available for 1976 in Douglas County. The estimated average household EBI in 1976 was $13,131. This compares to the State average of $14,437, which is about ten percent higher.

Table E-5 provides a breakdown of household EBI in Douglas County and Oregon in 1976.

TABLE E-5
EFFECTIVE BUYING INCOME
DOUGLAS COUNTY
1976

EBI GROUP	NUMBER OF HOUSEHOLDS WITHIN EBI GROUP			
	Douglas County		Oregon	
Under $3,000	3,323	(12%)	88,638	(10%)
$3,000-4,999	2,404	(8%)	69,645	(8%)
$5,000-7,999	3,030	(11%)	96,639	(11%)
$8,000-9,999	2,514	(9%)	66,632	(8%)
$10,000-14,999	7,429	(26%)	191,617	(22%)
$15,000-24,999	7,682	(27%)	251,456	(29%)
$25,000-49,999	2,076	(7%)	81,619	(9%)
$50,000 or more	142	(-1%)	10,656	(1%)
Total Households	28,600	(100%)	856,900	(100%)

SOURCE: Sales and Marketing Management Magazine

Bank Deposits

Bank deposits are often used as an indicator of general economic conditions in an area. Roseburg is the major service and trade center for central Douglas County. Consequently, the level of bank deposits in Roseburg is to some degree an indication of general economic conditions in the region served by the urban area. Figures are available from 1974 through 1977. Bank deposits have grown from $116,448,000 in 1974 to $i67,512,000 in 1977 in Roseburg for a 44 percent increase over the four year period evaluated. Bank deposits in Douglas County increased from $199,609,000 to $290,465,000 during the same period; a 45% increase. Table E-6 shows the amount of bank deposits for both Roseburg and Douglas County from 1974 through 1977 and reveals Roseburg's relatively constant percentage of all county bank deposits.

TABLE E-6
BANK DEPOSITS FOR ROSEBURG AND DOUGLAS COUNTY
1974-1977
(In Thousands of Dollars)

Year	Roseburg	% of County Deposits	Douglas County
1974	$ 116,448	58%	$ 199,609
1975	129,744	59%	219,204
1976	146,362	58%	251,334
1977	167,512	58%	290,465

SOURCE: Banking Division, Oregon Department of Commerce.

Retail Sales

Retail sales can be used as an accurate measure of commercial activity. Retail sales are especially important as an economic indicator in Roseburg because of the urban area's importance as a regional retail and service center.

Retail trade statistics for Roseburg are limited to published estimates made by the Editor and Publisher Market Guide for the years 1974, 1977, and 1979. Retail trade statistics are reported in nine separate categories. Table E-7 provides a comparative breakdown of retail trade statistics for Roseburg for 1974, 1977, and 1979.

TABLE E-7
RETAIL SALES BY TYPE OF PUCHASE
ROSEBURG, OREGON
1974, 1977 & 1979
(in Thousands of Dollars)

Year	Lumber/ Total Sales Hardware	Food	General Merchandise	Furniture, Furnishings, and Appliances	Automotive	Drugs	Gasoline	Apparel	Eat/ Drink	
1974	64,754	14,556	8,964	3,591	18,263	4,990	5,705	N.A.	4,632	4,055
1977	134,224	28,798	13,750	6,243	39,600	8,055	14,163	5,022	12,285	6,308
1979	165,168	34,338	16,939	7,872	49,094	9,589	16,375	5,904	15,682	9,375

SOURCE: Editor and Publisher Market Guide

TABLE E-8
RETAIL SALES BY TYPE OF PURCHASE
DOUGLAS COUNTY, OREGON
1974 and 1977
(in Thousands and Dollars)

Year	Total Sales	Food	General Merchandise	Furniture, Furnishings, and Appliances	Automotive	Drugs	Other Purchase
1974	214,232	50,969	15,402	9,633	46,277	8,757	83,194
1977	278,052	67,610	18,646	11,930	66,209	10,776	102,881

SOURCE: Sales and Marketing Management Magazine

Retail trade estimates for Douglas County are derived from estimates published by Sales and Marketing Management Magazine and are available for the years 1974 and 1977. Retail sales in Douglas County for these two selected years are shown in Table E-8.

Generally, retail sales in Roseburg and Douglas County have been increasing steadily. Roseburg represented 30 percent of all reported Douglas County retail sales in 1974, and 48 percent in 1977. During the same period, Roseburg experienced a 107 percent increase in sales, while overall Douglas County retail sales increased by 30 percent. All figures are expressed in "current" dollars. These figures illustrate Roseburg's rapidly increasing importance as a regional retail center. A large, regional shopping center which opened in the spring of 1980, should further accelerate this trend.

Industrial Activity

Roseburg has long borne the title, "Timber Capitol of the Nation." Indeed, the forest products industry is the mainstay of the region's economy; employing an estimated 8,850 workers in Douglas County in 1980.

Major lumber and wood products industries in the Roseburg urban area include Douglas County Lumber Company (375 employees); Roseburg Lumber Company (450 employees); Keller Lumber Company (65 employees); Sun Studs, Inc. (275 employees); and U.S. Plywood (575 employees). In addition, 30 other logging, lumber and wood products industries provide employment for approximately 700 additional workers.

These figures reflect the number of employees who actually work in the urban area or work for companies based in the urban area. Many of the industries listed above have operations throughout Douglas County and may employ only a small percentage of their work force in the Roseburg urban area. In addition, industrial operations outside the urban area draw significantly on the urban area's work force.

Due to the very nature of the timber and wood products industry, it is difficult, if not impossible, to analyze the economy of Roseburg separately from the broader regional economy. A mill closure in Riddle or Sutherlin would directly effect many people who live in Roseburg, but actually work in another part of the region.

Although there have been several mill closures in central Douglas County during the last five years, overall employment in the industry has been relatively stable. County-wide, employment in the lumber and wood products industry is slightly higher than in 1976, although it is significantly lower than its peak period in 1978.

Other industries have experienced rather impressive growth over the same period, and to some extent have helped absorb workers displaced during periodic slumps in the primary industry. While the timber products industry has experienced only a half percent growth between 1976 and 1980, all other sectors experienced growth of 10 to 40 percent over the same period.

Economic Support Systems

A number of conditions are required prior to the proper functioning of any economic system. Those conditions include an efficient transportation network; environmentally sound waste disposal systems; available financial assets; and other community services such as police and fire protection, schools, parks, etc. While all of these topics are discussed at length in other elements of the Comprehensive Plan, it is helpful to briefly review their direct relationship to the urban areas economic climate.

Transportation

The transportation system is of vital importance to the area's economy. Transportation makes possible the movement of raw materials, the marketing of finished goods, and the mobility of the populace. It also creates a major share of the costs of production. The transportation system is composed of three subsystems: Motor Vehicle Transportation, Airborne Transportation, and Rail Transportation. Roseburg is centrally located in Douglas County and is directly on, or very near to, most major

transportation routes which serve the region. Interstate 5, which is the main north/south motor vehicle route on the west coast of the United States, passes directly through the middle of the urban area.

There are two main feeder highways that connect 1-5 with the Pacific coast and the port facilities located there. Highway 42 about ten miles south of Roseburg, connects 1-5 near Winston with U.S. 101 near Coos Bay.

Highway 138, about 12 miles to the north, parallels the Umpqua River and connects the Pacific Coast Highway at Reedsport to the City of Sutherlin. These two highways are the primary east/west routes that move goods and people between the coast and the urban area. Current and planned construction projects for both Highway 42 and Highway 138 will improve the movement of vehicles along these routes in the future and facilitate increased interaction between the Umpqua Valley and the coast.

The Umpqua National Forest, which lies about thirty miles to the east of Roseburg, supplies a significant amount of raw forest products which are processed in the urban area. This vital resource area is connected to Roseburg by Highway 138. About 18 miles of the highway immediately east of the city has been improved to four-lane width and is maintained by Douglas County. Other secondary roads connecting the urban area with the surrounding resource lands are maintained at a high level to help ensure the safe and efficient transport of the regions important natural resources.

Rail service within Douglas County is similar to motor vehicle transportation in that it is oriented in a north/south direction. Rail service through the urban area is provided by Southern Pacific.

It has been estimated that 90 percent of the forest products from Douglas County are shipped to national markets by rail. In past years though, the percentage of products being shipped by rail has been declining because:

1) Shipping by truck became more economical.

2) The percentage of the areas products consumed on the West Coast increased.

3) Rail rates increased.

But, 1976 saw a possible reversal in the trend of declining rail usage as Southern Pacific reduced key commodity rates and rail tonnages increased dramatically. As the cost of fuel increases, the energy efficiencies inherent in rail transportation may shift a greater percentage of commerce to rail transportation.

Table E-9 shows the current rail tariff rate structure for shipments to Portland from Roseburg, Coos Bay, and Eugene. The full ramifications of rail transport are discussed at length in the Transportation Element of the Comprehensive Plan.

TABLE E-9
RAIL TARIFF RATE STRUCTURE
TO PORTLAND

From	Cost/100 lbs.	Minimum Weight
Roseburg	64¢	100,000 lbs.
Coos Bay,	71¢	100,000 lbs.
Eugene	55¢	100,000 lbs.

SOURCE: Southern Pacific Railroad
Rates Effective March 31, 1979

Air transportation does not currently constitute a significant economic resource for the Roseburg urban area. Roseburg Municipal Airport is a general aviation facility with a runway length of 4600 feet. Although the facility is adequate to accommodate intermediate passenger and cargo carries, such service is not currently provided on a scheduled basis.

Public Facilities, Utilities and Services

The availability and reliability of facilities and utilities is essential to economic development. Of primary importance are electricity, gas, water, and waste disposal. Important services are finances and community services. The Public Facilities and Services Element of the Comprehensive Plan provides an in-depth analysis of these subjects, but it is valuable to briefly discuss their impact upon economic growth.

Energy

The urban area relies primarily upon the importation of electrical energy from other areas. The major exceptions are the hydroelectric generating facilities on the North Umpqua River owned by Pacific Power and Light Company, and the generation of power from wood products waste by some of the County's forest products processing plants. The Roseburg area is at a rate disadvantage for electricity used domestically and commercially when compared to Eugene, although local rates are about equal to those in Portland. Table E-10 provides a comparative breakdown of residential, commercial and industrial electricity rate charges for Roseburg and other cities in central and southern Oregon.

TABLE E-10
RESIDENTIAL, COMMERCIAL AND INDUSTRIAL ELECTRICITY CHARGES
FOR SELECTED UTILITIES

Utility	City	Residential		Commercial		Industrial		
KW/		500 KWH	1000 KWH	12 KW/ 15000 KWH	30 KW/ 6000 KWH	150 KW/ 30,000 KWH	300 KW/ 60,000 KW	1000 200,000
KWH								
Central Lincoln PUD	Reedsport	$ 9.70	$ 14.90	$29.70	$ 81.00	$415.00	$ 734.00	$2,040.00
Coos-Curry Electric Co-operative	Brookings-Gold Beach	$12.25	$20.50	$40.00	$112.00	$607.00	$1,095.00	$2,810.00
Douglas Electric Co-operative	Elkton	$13.00	$23,00	$40.50	$ 96.75	$480.25	$1,130.00	$3,300.00
Eugene Water & Electric	Eugene	$10.37	$17.33	$37.89	$ 99.13	$723.75	$ 880.41	$2,753.61
Pacific Power & Light	Roseburg Coos Bay-North Bend	$15.01	$27.02	$46.50	$148.45	$721.05	$1,418.55	$4,492.55

SOURCE: Company Rate Schedule, April 1979.

The State of Oregon does not currently produce significant supplies of natural gas at the present time. Some newly developed natural gas wells in the northwest corner of the state may represent the end of Oregon's total dependence on outside sources of natural gas energy, but presently, most 9 as supplies are imported from other states or British Columbia. Natural gas supplies are currently available in most parts of the urban area. Roseburg has a natural gas rate advantage when compared with Portland and Eugene. Residential and commercial natural gas rates in Roseburg are compared to rates in other regions of the state in Table E-11A more detailed analysis of energy needs and resources is provided in the Energy Element of the Comprehensive Plan.

TABLE E-11
RESIDENTIAL AND COMMERCIAL NATURAL GAS CHARGES
FOR SELECTED UTILITIES
As of May, 1979

		Residential	Commercial	
UTILITY	CITY	50 Therms	100 Therms	5000 Therms
California Pacific Utility Company	Roseburg	$20.97	$38.12	$1,723.52
Cascade Natural Gas Company	Pendleton-Bend	$18.69	$36.01	$1,504.07
Northwest Natural Gas Company	Portland-Eugene	$21.10	$38.00	$1,446.80

SOURCE: Company rate schedules

Water Resources and Systems

The availability of water is essential to the economic viability of the Roseburg urban area. It is used for industry, recreation, power generation, fish and wildlife, and domestic purposes. In the urban area, the largest quantity of water is used for domestic purposes, while the largest single users are the wood products processing plants.

The primary source of water for both domestic and industrial use is the North Umpqua River at Winchester. The water treatment plant can presently provide complete treatment for 3.4 million gallons per day (MGD). During summer months, when raw water quality is high, the plant's settling facilities are not used and the rated capacity is about 9.5 MGD.

In 1978, the average daily flow was 4.75 million gallons of water with a peak day flow of 8.9 million gallons. These flows are projected to increase to 7.8 MGD and 16.5 MGD respectively by the year 2000.[3] In order to meet projected future demand, the City will need water rights for an additional six cubic feet per second beyond the City's existing rights to 25 cubic feet per second.[4] These projections are based on the assumption that the domestic/industrial demand ratio will remain constant over the next 20 years. The introduction of new industries which demand large quantities of water would seriously alter projected water and water facility needs. A perception of inadequate water service could represent a hindrance to attracting new industry to the Roseburg urban area. Water resources are adequate to meet existing and foreseeable domestic demands on a yearly basis. However, some elements of the delivery system are approaching capacity and extensive upgrading of facilities will be required in the next five to ten years. A more detailed assessment of water system needs is provided in the Natural Resources Element, the Public Facilities and Services Element, and the City's Water System Master Plan.

Waste Disposal Systems

As people are becoming more aware of their environment, they are realizing that natural amenities must be conserved for their future potential and aesthetic value. With increasing population and economic growth it is becoming apparent that these limited resources may be endangered in some areas due to inadequate waste disposal methods. Wastes that are not properly treated affect the health of people, the health of aquatic life, the aesthetic beauty of an area and reduce the supply of good quality water.

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[3] Water System Master Plan, City of Roseburg, April, 1979.
[4] Ibid.

There are two major classes of waste: solid waste and sewage or water related wastes. In the urban area, solid waste is deposited in public sanitary landfills. At the present time, these solid waste disposal sites are available for both domestic and commercial wastes. Industrial wood wastes are utilized in various manufacturing processes and as an energy source. The present solid waste disposal sites and disposal programs in the urban area cannot adequately meet the demands that will be placed on them in the next ten years.1 Solid waste management programs and alternatives currently being discussed such as recycling and energy recovery in the form of steam generation may provide solutions for the sanitary landfill problems of the area.

Disposal of fluid wastes is also a prominent economic problem. This waste is disposed of in a variety of ways and may receive various degrees of treatment in the disposal process, ranging from the dumping of raw sewage to highly refined treatment methods. As refinement increases so does the cost, and this cost factor may limit the degree of refinement used.

Industrial and domestic sources are the major generators of sewage and water related wastes in the urban area. The strength and non-soluble contents of industrial wastes make elimination more difficult and costly than treatment of domestic waste.

The two existing municipal treatment facilities in the urban are Douglas County Solid Waste Management Study currently provide secondary waste treatment but these facilities will need to be expanded or replaced within the near future if economic growth is to continue.

Increasing requirements on industries for pollution control measures are escalating the costs of production in some fields. This increasing cost factor could restrict economic activity and thereby reduce employment.

Future solutions to the waste disposal problems facing the urban area will depend on the development and utilization of waste products as well as the provision of adequate treatment facilities.

Financial Resources

Economic development requires an adequate supply of money at two separate levels. First is the investment undertaken by local government in supplying a large portion of the necessary infrastructure such as streets, water, sewer and other ancillary services. Second is the investment by industry to construct new plants and facilities and purchase capital equipment. This section discusses the ability of the City to finance the necessary infrastructure improvements and the availability of private capital in the area for development.

Public Resources

The ability of local governments to finance economic development projects may be indicated by two basic factors. The rate of property taxation demonstrates the amount of burden carried by the local taxpayer and the amount of indebtedness of each local governmental entity indicates the collective burden. Table E-12 demonstrates the variation in property tax rates found within Douglas County and Table E-13 compares the estimated ratio of general obligation bonded indebtedness to total assessed value of several cities in the county, including Roseburg.

TABLE E-12
SAMPLE PROPERTY TAX LEVIES WITHIN DOUGLAS COUNTY
1978-1979
(Dollars per $1,000 Valuation)

Roseburg	15-50
Winston	15-98
Reedsport	12.62
Sutherlin	i6.49
Drain	17-70
Myrtle Creek	14.38

SOURCE: Douglas County Tax Roll Summary, 1978-79.

TABLE E-13
ESTIMATED RATIO OF GENERAL OBLIGATION
BONDED INDEBTEDNESS TO TOTAL ASSESSED VALUE
1977-1978
(Expressed as percent)

Douglas County	0.0%
Myrtle Creek	1.6%
Reedsport	0.1%
Roseburg	1.6%
Winston	0.0%

SOURCE: Coos-Curry-Douglas Economic Improvement Association Comprehensive Economic Development Strategy, 1978-79.

In this day of resource scarcities and growing labor costs, it is vital that municipal governments like those in the private sector, continuously attempt to provide more and better services at less cost. Rising city expenditures are caused by increasing population, inflation and citizens' demands for more and better public services. Roseburg is facing increased demands for more and higher quality services at the very time many people are revolting against increased taxes (see Table E-14).

TABLE E-14
VOTER RESPONSE TO REVENUE MEASURES
CITY OF ROSEBURG
1977, 1978 & 1979

		VOTE		
Date	Measure	Yes	No	
5-24-77	One Year Levy on Armory ($31,600)	1,658	1,035	(Approved)
5-24-77	Budget Outside 6% Limitation	726	932	(Failed)
6-28-77	Budget Outside 6% Limitation	689	625	(Approved)
10-12-77	Charter Amendment to Buy Water Company	1,291	794	(Approved)
2-14-78	Increase in Sewer Rates	292	1,009	(Failed)
5-23-78	Retain Willis House	1,389	2,843	(Failed)
5-23-78	Three Year Bus Levy ($97,000 a year)	2,167	2,111	(Approved)
5-23-78	Levy to Operate Armory ($68,483)	1,523	2,218	(Failed)
7-11-78	Budget Outside 6% Limitation	936	821	(Approved)
6-19-79	Budget Outside 6% Limitation	602	892	(Failed)
6-19-79	Motel/Hotel Tax	602	892	(Failed)
8-14-79	Budget Outside 6% Limitation	1,015	488	(Approved)
9-18-79	Increase in Sewer Rates	864	926	(Failed)

Many of the things which affect the affairs of the City are outside the formal boundaries and governing capacity of city control. Many of the public actions taken, especially by the national government to aid cities, have had an effect on Roseburg's ability to handle its own affairs.

The shifting of federal and state programs to the city, increasing numbers and kinds of mandated programs, imposition of standards, criteria and requirements, and altering incidence of taxes has seriously reduced the capacity of most cities, including Roseburg, to actively translate local preferences into policies.

Almost everything the city needs to provide services to its citizens is increasing in cost, such as electricity, gas, oil and oil products, asphalt, metal and wood products, water and sewer pipes, fittings, chemicals, equipment, and repair parts.

The September 1978 issue of the American City and County reported that the municipal cost index over the 10-year period from 1967 to 1978 increased 99.5%. The December 1979 issue of The American City and County reported that the municipal cost index continued to rise at 11.8 percent annually for the past year of 1979.

General revenue sharing - The experiment in "new federalism," which began in 1972, is a major factor in the flow of funds from Washington. Today about eleven percent of federal revenues passed on to state and local governments are dispensed under the revenue sharing program.

It is estimated Roseburg will receive approximately $400,000 in federal revenue sharing in 1980. In the past, these funds have been used by Roseburg for capital programs.

It is estimated Roseburg will receive $100,000 from the State of Oregon revenue sharing program in the 1980-1981 budget year. This program was enacted in 1977.

It is estimated that other revenues to be received from the state during the 1980-81 fiscal year will be $145,203 from the liquor tax, $41,838 from the cigarette tax, and

$249,094 from highway user taxes. These funds are to be utilized for off-setting general fund expenses.

Table E-15 provides a more detailed breakdown of revenue sources for the City of Roseburg for the fiscal years 1977-78, 1978-79 and 1979-80.

Without federal, state and county funding programs in the form of revenue sharing and aid to cities, Roseburg would find a need to either delete worthwhile programs and projects, or require higher property taxes to offset expenses now paid for by these sources of revenue.

TABLE E-15
REVENUE SOURCES
CITY OF ROSEBURG
1977 - 1980

REVENUE SOURCE	1977-78	Fiscal Year 1978-79	1979-80
Cash Balance	521,343	746,380	630,000
Current Taxes	1,631,418	1,328,761	1,633,566
Taxes-Prior Years-1st	132,135	136,340	130,000
Taxes-Prior Years-2nd	46,695	47,758	38,000
Municipal Violations	267,435	313,829	360,000
Interest	34,235	38,695	20,000
Building Permits	75,278	63,154	55,000
Franchise-Calif. Pac. (Gas)	44,024	36,681	40,000
Franchise-Oregon Water Corp.	19,318		
Franchise-Pacific NW Bell	38,824	57,206	45,000
Franchise-Pacific Power & Light	129,272	134,184	128,000
Franchise-Douglas Cable TV	8,925	9,964	11,000
ST Subvention-Gas Tax	219,660	256,242	246,840
ST Subventions-Liquor Control	132,748	140,834	151,450
ST Subventions-Cigarette Tax	36,127	43,849	46,635
Recreation-Golf Course	57,172	59,460	70,000
Recreation-Legion Field-Others	1,996	3,383	4,890
Recreation Center	9,820	3,235	10,000
Licenses-Vending Machines	2,733	2,782	3,000
Licenses-Garbage Disposal	3,000	3,000	3,000
Licenses-Dog Control	7,752	7,299	8,000
Licenses-Peddlers and Others	1,274	738	1,000
Public Works	3,741	4,737	2,500
Grants-Manpower, L E A A	391,644	216,925	41,973
State Revenue Sharing	73,498	88,717	89,500
Anti Recession	214,633	14,765	
Grants-L C D C		26,838	29,834
Tran from Other Funds		367,828	446,263
Miscellaneous	54,969	70,668	33,500
Bus Fares & Subventions	67,501		
TOTAL REVENUE	4,227,181	4,224,266	4,278,951

Private Resources

The major influences on the availability of investment money is the willingness of all the individuals in an area first to save, and then, second, to invest those savings. One indicator of the total amount of money available is the average household income. The higher the income level the greater the proportion of that income that is available for saving or investment. As was demonstrated earlier, Roseburg's average income level is higher than that of the State. This indicates generally that the amount of capital available for investment is more than the State average.

Commercial banks are another major source of capital for investment in an area. Table E-16 lists total demand and time deposits and the ratio of loans to deposits for each bank in Douglas County as of December 31, 1978. As shown, the range in the loans-to-deposits ratio is great. These ratios may indicate the "aggressiveness" or "conservativeness" of each bank in the County, provided that only institutions of similar deposit size (both in the local branch and the state total) are compared. The high proportion of small banks in the County should be noted, since this factor would tend to increase the overall loan-to-deposit ratio of the area.

The loan/deposit ratio does not completely portray the role of the major banking systems within the County. In most instances, real estate loans made by the branch are carried by a central real estate department and are not reflected in the branch's total loans. In addition, the loan figures do not consolidate activities initiated by the local branches but conducted by subsidiary leasing or mortgage firms.

Savings and loan associations also provide a major source of capital for investment. There are nine savings and loan offices in Douglas County representing five associations. While a breakdown of deposit and loan figures for each office is not available, the Federal Home Loan Bank in Seattle reports total deposits in all saving and loan institutions in the county as of September, 1979, equaled $116,275,000.

TABLE E-16
DEPOSIT/LOAN RATIOS OF PRIVATE FINANCIAL INSTITUTIONS
AS OF DECEMBER 31, 1978 (Millions of $)
DOUGLAS COUNTY

Douglas County	Deposits	Loan/Deposits Ratio
First National		
Oakland	6.7	.32
Riddle	9.2	.38
Roseburg	64.9	.29
Sutherlin	11.8	.43
U.S. National		
Drain	17.0	.42
Myrtle Creek	9.9	.14
Roseburg	67.8	.57
Douglas National		
Drain	3.6	1.03
Glide	3.5	18
Roseburg	40.9	.73
Sutherlin	5.8	.69
Winston-Dillard	10.7	.43
Yoncalla	1.4	.00
South Umpqua State Bank		
Canyonville	13.1	.43
Glendale	3.7	.60
Myrtle Creek	6.9	.72
Roseburg	13.8	.94

SOURCE: Oregon State Superintendent of Banks

Economic Diversification and Roseburg is Future

The strong growth trends evident in Roseburg in the service sector, the retail and wholesale trade sectors, the government sector, and the finance, insurance and real estate sectors, indicate that Roseburg is becoming an area better characterized as a service and trade center than as a lumber and wood products manufacturing center. This does not imply that the wood products industry is of any less importance to the areas economy. What is suggested, is that the relatively slow growth of the basic

resource industry, as compared to other sectors of the economy, offers evidence that the character of the Roseburg economy, is indeed, changing.

Some consequences of this have already been discussed, particularly the effects of this type of economic development pattern on median family income. As a result of the new pattern of economic development, cyclical employment fluctuations may be lessened. However, seasonal employment fluctuations will continue to characterize the local economy. The lumber and wood products industry, where employment fluctuates greatly according to seasonal changes and according to the level of national housing construction activity, is employing a decreasing percentage of the urban area's labor force.

Although the employment gains in the retail, service, and government sectors are encouraging, they represent gains in non-basic or secondary sectors; those which rely for their continued existence on the health of the basic sectors, such as the lumber and wood products industry. They would not stand independently as permanent gains if large-scale basic sector contractions occurred.

Basic Employment Sectors

The distinction between basic and non-basic sectors is important. They are of fundamentally different character in that basic sectors support the rest of the economy, whereas non-basic activities can be viewed as induced effects derived from, and dependent upon, basic activity. The alternative nomenclature of "primary" and "secondary" sectors is also commonly used. Commonly accepted as basic or primary sectors are manufacturing; extractive activities such as logging, mining and fishing; agriculture; and, sometimes, tourism and government.

Forestry

The timber products industry is the largest and single most important basic or primary economic activity in the region. However, it remains troubled due to long-term supply shortages plus a number of more immediate factors likely to have short term

effects. These include the level of interest rates and national housing starts, the annual Forest Service budget allocation, restrictions on herbicide use, wilderness-area designations, reductions in annual allowable cutting on Federal lands, and competition from other regions of the nation.

The forest products industry is not without potential for increased employment, however. There are several factors at work that could partially off-set these trends. Commonly agreed upon factors which could increase employment in the forest products industry include: 1) more labor-intensive product mix; 2) greater saw-timber utilization; 3) reduced log exports; 4) hardwood utilization; 5) expanded wood chip utilization; 6) secondary processing; and, 7) intensified management practices.

An important characteristic of the resource base is the ownership pattern, because ownership influences the utilization of the forest resource. Forest land ownership within Douglas County is well distributed, with the largest category, National Forests controlling 34 percent, Bureau of Land Management with 22 percent, the forest industry with 29 percent, non-industry private ownership controlling 14 percent, and other public bodies managing about two percent of the 2.64 million acres of county forest land. Actual saw-timber harvest figures also illustrate the importance of the forest resource base. In 1976, National Forest lands supplied 23 percent of the timber harvested in Douglas County. This was lower than the 27 percent harvested from BLM and other public lands. Lands owned by the forest industry supplied 47 percent of the timber harvested in the county, while other private lands provided slightly more than two percent.

Agriculture

Historically, agriculture has held a prominent place in Douglas County and the urban areas economy. Today, however, primarily because of the massive scale of the forest products industry, agriculture has a much smaller impact on the County's overall

economy. But, statistics do indicate that agricultural production is increasing in the County and may begin to play a more significant role in the County's economic future.[5]

The majority of agricultural products grown in Douglas County are processed outside the county. Much of the livestock produced in the County is sold at auction and exported for processing and consumption. Almost all of the County's agricultural crops grown for processing are shipped outside the County for processing. Farm forestry and dairy products are the only major products which are processed in the County.[6]

Marketing problems have also plagued County agriculturalists. In fact, marketing problems alone have been blamed for the ruin of both the prune and turkey industries in Douglas County. Douglas County has no processing plants for most commodities and thus there is no standardization of size or in many cases type or variety of product. Crops go to market at times completely unidentified. It has been stated that the locally famous Dillard melon has been sold in Portland markets under the label "cantaloupe." There exists no or little quality control for many products produced in the County and local products are poorly advertised. In other words, potential buyers, unless they are told, will not realize the Dillard melon is of a different and higher quality than a cantaloupe and thus should be priced higher.[7]

A further marketing problem encountered in Douglas County is the erratic production of crops from year to year. Although Douglas County has raised substantial amounts of agricultural products from time to time (for example prunes, turkeys, berries), the products have not had the consistency, quantity and quality to merit local processing on a large scale.[8]

Most commodity sales in Douglas County have had greater percentage increases than state averages since 1969. According to research by the Coos-Curry-

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[5] Gross Farm Sales, complied by Extension Economic Information Office, Oregon State University

[6] Comprehensive Economic Development Strategy, 1978-79 Action Program, CCD Economic Improvement Association, Section IV, pages 28-34.

[7] Michael Rupp, The Demise in Agriculture in Douglas County, unpublished report, December, 1974.

Douglas Economic Improvement Association, 1980 should see a moderate increase in farm commodity prices and production levels for Douglas County.[9] As the price of meat rises, ranching will likely continue to be an attractive market and should continue to grow. The agricultural industry offers opportunities for expansion which will help to diversify the economy and make it less timber-dependent.

It is unlikely that horticultural products will increase very dramatically in Douglas County. The County's limited amount of Class I through III soils, and the intense competition for those lands, reduces the chances for any significant horticultural expansion. The nursery market has potential for increases, and the quality of produce in the County is likely to expand. However, any significant gains in agricultural expansion are likely to rest with livestock production.

Livestock increases will depend in large degree upon improved management techniques and market conditions. There are vast acreages of Class VI and VII soils throughout the region which could be converted to improved pasture for livestock grazing. In order to encourage such expansion, public policy must be formulated and pursued to encourage livestock production and pasture improvement, and discourage uses which are incompatible with such operations; most specifically, rural subdivision. If rural residential development goes unchecked, it is unreasonable to expect that any significant agricultural increases will occur.

Another problem facing the agricultural economy is the dwindling agricultural labor force in Douglas County. The local agriculturist must compete with the lumber industry for his labor needs and the mills often offer pay as much as double that which can be offered by farmers and ranchers.

Transportation improvements have helped the marketing of local agricultural products, but as transportation costs rise the County will again be put in a marketing disadvantage. Another major limitation to the agricultural economy in Douglas County is

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[8] Extension Advisory Council and Long Range Planning Committee, Long Range Planning Conference, Douglas County, 1968.

[9] Comprehensive Economic Development Strategy, 1978-79 Action Program CDD Economic Improvement Association, pp. 23-34

that two major farming regions of the United States, the Willamette Valley and the Sacramento Valley, are located much closer to West Coast markets. Willamette and Sacramento Valley farmers, therefore, place Douglas County farmers at a competitive transportation disadvantage.

Tourism

Tourism is also an important, though difficult to measure, component of the urban area's economy. It fluctuates seasonally but has, over time, exhibited long-term growth. However, preliminary figures on the 1979 tourist season indicate that the area's tourist facilities may be highly sensitive to the worsening gasoline situation facing motorists.

Situated on the primary north-south transportation route of the west coast, Roseburg's tourist economy will continue to benefit from the heavy flow of interstate traffic, though the rate of growth in this sector is expected to gradually decline. If the local tourist economy is to continue to grow, it will have to make modifications in order to capture the increasing percentage of local or in-state recreational activity.

NON-BASIC ECONOMIC SECTORS

Although the urban area economy relies primarily on manufacturing as the basic economic sector for growth, the non-basic economic sectors, those sectors providing goods and services to basic industries, their employees, and their families, are also important facets in the economic picture of the area. These non-basic sectors include: Trade and Service; Construction; Transportation, Communications, and Utilities; and Finance, Real Estate and Insurance. Government is also discussed here although it is sometimes considered a basic industry.

Trade and Service Industries

A major sector of any economy is one that makes goods and services available to the people. This sector is one of increasing importance in all economies since the

demand for goods and services is increasing rapidly with the rise in the standard of living.

In preceding discussions it was shown that growth in trade and services within the urban area increased at a faster rate than it did on a county-wide basis during the 1970's. This increase in trade and services has helped offset declines in other sectors of the economy.

Growth in trade and services has helped slow a possible "trade drain" from the county as new retail developments in the urban area attract consumer dollars formerly spent in adjacent counties. Table E-17 examines retail sales as a percent of effective buying income in several areas of the state, comparing 1970 and 1977. The amount of retail sales as a percent of effective buying income has increased for Douglas County, but has declined for the state as a whole. Further, while Douglas County's proportion of trade was increasing, other selected counties' trade was either remaining stable or declining, with the exception of Josephine County. This could indicate that Douglas County is beginning to retain consumer spending and perhaps is attracting retail business from areas outside the county.

TABLE E-17
RETAIL SALES AS PERCENT OF EFFECTIVE BUYING INCOME

	1970	1977
Oregon	61.3	55.9
Douglas	53.5	64.7
Coos	57.9	68.4
Curry	48.1	40.8
Lane	58.1	54.9
Jackson	68.8	59.0
Josephine	62.9	77.5
Multnomah	67.7	62.5
Marion	70.2	59.7

SOURCE: Computed by CCD from Sales Management Survey of Buying Power; 1971 & 1978 "Sales and Marketing Management."

While there is still room for expansion of trade and services, future growth is dependent to a large degree upon maintenance or expansion of the local economic base. Specifically, this means the lumber and wood products industry, where further reductions from present employment levels could seriously affect trade and service industries.

Construction

Housing construction is strongly related to population trends but is also influenced by national economic factors. The national money markets and prevailing interest rates have a significant impact upon the total number of homes and other structures built in the urban area.

Low rates in 1977 brought construction to a higher level than previously experienced. However, the current skyrocketing rates may bring about a substantial slowdown in both the national and local construction industry in the near-to-mid-term future.

Housing has been in short supply in the urban area in recent years and construction employment has risen in each of the last four years, both absolutely and as

a percentage of total employment. Other things being equal, construction can be expected to increase in the short term, unless prices and mortgage rates rise enough to offset the demand. Another offsetting factor could be increasing use of modular and mobile housing, which requires little construction labor. Other construction is strongly influenced by state and federal programs. Major governmental construction projects can generate a large amount of employment for the duration of the project, helping to offset lags in other areas of the construction sector.

Transportation, Communications and Utilities

The employment levels in the transportation, communications and utilities sector have been relatively stable over the past five years in comparison to other services. Future employment should keep pace with population increases, although a downturn in basic employment would adversely affect this sector.

Government

Government is one of the slower growing sectors in the region's economy. Employment in the government sector county-wide increased ten percent between 1976 and 1980, and remained constant at 22 percent of the workforce over the same period. Employment in this sector is expected to continue to expand, though not at the same rate of increase experienced during the last six years. Increased budgetary constraints\ at all levels of government will have a major effect upon future growth. It is perhaps worth pointing out that fully half of this category comprises teachers and others in education.

PROGNOSIS

The trend towards utilization of the timber resource for other than construction materials may decrease seasonal and annual employment fluctuations, as such products are not tied to national housing trends or seasonal market changes.

In the long run, employment and production in the lumber and wood products industry throughout Douglas County may well decline or remain constant. According to studies conducted by the Coos-Curry-Douglas Economic Improvement Association, this probable long-run decline through the year 2000 can be expected because future production of the forest land supplying the region's mills is likely to be considerably less than present levels.

The sectors increasing their share of the urban area's employment total are all growing rapidly and have not been particularly subject to cyclical employment fluctuations over the last five years. However, each of these rapidly growing areas is subject in different degrees to seasonal employment fluctuations. Strongly affected are retail and wholesale trade, much of the service sector, and a significant portion of the government sector.

The economic pattern now developing in Roseburg will continue, if not increase, the dependence of the local economy on factors outside the urban area. Roseburg's trade and service oriented economy depends on the patronage of persons living throughout Douglas County.

That portion of service and trade activity which depends on the patronage of people from outside the Roseburg area can be described as basic economic activity, in that it brings money into the local economy from outlying areas in the same way as do manufactured exports. Roseburg's dependence on this basic activity has increased significantly over the last decade as employment in the trade and service areas expanded drastically and as employment in manufacturing activities witnessed a relative decline.

The implicit danger involved in trade and service oriented development is that towns in the surrounding area may take action to return retail trade service activity to their own local economies through the construction of competing trade and service facilities designed to stop the flow of dollars out of their cities. Roseburg, however, seems to be in a strong position in a competitive sense, with respect to other cities in this area. The specialized medical and health care available in Roseburg will undoubtedly continue to attract people from throughout the region for many years to come. The recreational and cultural attractions in and around Roseburg will probably continue to attract retail trade from throughout the region if retail trade operations remain modern and competitive.

FINDINGS

1. The lumber and wood products sector is the urban area's dominant manufacturing activity. Douglas County's forests are the area's most important natural resource utilized as a factor of production.

2. The structure of the Roseburg urban area economy is undergoing a transition toward a more diverse economic base characterized by growth in light manufacturing activities and the nonmanufacturing activities of trade, commercial and professional services, finance, insurance and real estate.

3. The size of the labor force in Douglas County has grown at nearly twice the rate of population growth during the last five years (1976-1980). The growth of the area's labor force is primarily attributed to the dramatic increase in the number of women entering the job market.

4. The unemployment rate in Douglas County has experienced dramatic fluctuation over the last decade and has undergone an overall increase. Fluctuations in the unemployment rate are mostly the result of employment fluctuations in the large lumber and wood products industry. Employment in the lumber and wood products industry corresponds quite closely to national housing construction activity.

5. Nonmanufacturing activity has experienced impressive growth during the past decade, and to some extent has helped absorb workers displaced during periodic slumps in the primary industry. While the timber products industry has experienced only a half percent growth between 1976 and 1980, all other sectors experienced growth of 10 to 40 percent over the same period.

6. Median family income in Roseburg has nearly doubled since 1970 and is estimated to be around $18,000 in 1980. The urban area's median family income is estimated to be 12.5 percent higher than for Douglas County as a whole. This is indicative of the higher skill levels and managerial positions that are present in

the urban area and for the greater employment opportunities available for females as an additional wage earner in the family.

7. Roseburg is rapidly increasing in importance as a regional retail and service center. Between 1974 and 1977, Roseburg increased its share of all retail sales in Douglas County from 30 percent to 48 percent. During the same period, Roseburg increased retail sales by 107 percent, while county-wide all retail sales increased only 30 percent.

8. Historically, the Roseburg urban area has enjoyed an adequate level of economic support systems such as transportation, water, waste disposal and community services. Future economic growth is dependent upon continued maintenance and improvement of the urban area's economic support systems.

9. Economic growth, while benefiting the private sector, has resulted in increased demands for larger capitol improvements and a higher level of services from the public sector. In order to meet the demands placed upon it, the City is becoming increasingly dependent upon outside sources of revenue such as state and federal revenue sharing funds. The dependence of the City on these sources of revenue, along with the mandated programs, imposition of standards, criteria and requirements, has seriously reduced the capacity of the City to respond to local preferences.

10. The future of the urban area's economic growth will be more and more tied to expansion in the service and trade sectors as the lumber and wood products industry gradually declines over the next 20 years. Industrial diversification will be required to off-set expected future declines in the primary manufacturing sector.

ASSUMPTIONS

1. The urban area's labor force participation rate will continue to increase as both social and economic forces draw more women into the job market.

2. During periods of slow growth in the national housing market the urban area will experience increased unemployment rates, particularly in the lumber and wood products industry. Growth in other sectors of the local economy should help to keep overall employment high.

3. As employment in higher paying sectors of the local economy (lumber and wood products) continues to decline, the average annual wage levels will probably experience a decline relative to the state as a whole.

4. Roseburg will continue to increase in importance as a regional trade and service center.

5. Major capital improvements, particularly to the urban area's streets, sewer, and water facilities, will be required in the near future to accommodate economic growth.

6. The City of Roseburg will become increasingly dependent upon local sources of revenue in order to meet future demands for public facilities and services due to reduction of outside sources.

GOALS, OBJECTIVES AND POLICY STATEMENTS FOR ECONOMIC GROWTH

Goals

To broaden, improve and diversify the economy of the Roseburg urban area while enhancing the environment.

Objectives

1. Improve the level and stability of per capita income for urban area residents.

2. Minimize unemployment in the resident labor force, especially chronic, long-term unemployment.

3. Encourage programs that provide educational and job search skills to enable local residents to obtain existing jobs.

4. Promote industrial and commercial development with local capital, entrepreneurial skills, and skills and experience of the residential labor force, while continuing to attract outside investments.

5. Supply an adequate amount of land having the appropriate qualities to accommodate projected industrial and commercial needs.

6. Diversify the manufacturing sector of the local economy by encouraging the establishment of low polluting, low energy-using industrial activities.

7. Encourage and promote the expansion of existing businesses.

8. Continue to develop the urban area as a regional distribution, trade and service center.

9. Encourage strong central business districts to provide for office-based commercial, governmental and specialized or large-scale retail activities, and encourage the continued viability of the downtown area.

10. Ensure compatibility between industrial lands and adjacent areas.

11. Increase the potential for convention and tourist-related economic activities.

12. Provide the necessary public facilities and services to allow economic development.

13. Attempt to find ways to more effectively use inefficiently used resources such as land, labor and secondary waste products.

Policies

1. The City of Roseburg shall encourage economic growth by demonstrating a positive interest in existing and new industries, especially those providing above-average wage and salary levels, an increased variety of job opportunities, a rise in the standard of living, and utilization of the resident labor force.

2. The City will encourage the continuance of career preparation and employment orientation programs for urban area residents by the community's educational institutions, labor unions, business and industry.

3. The City shall encourage economic activities which strength the urban area's position as a regional distribution, trade and service center.

4. Through the planning process, the City and County shall continue to monitor the supply of developable commercial and industrial sites to ensure opportunity for the expansion of existing and the establishment of new economic enterprises throughout the urban area.

5. In order to protect and enhance development opportunities for major industrial uses which require large sites, the City and County shall encourage the retention of industrially-zoned parcels exceeding 50 acres in area.

6. Areas identified as sites for future industrial development shall be preserved and protected from potential conflicting activities.

7. The City shall encourage the development of light industrial parks with campus-like design which provide areas for offices, warehousing, distributing and light manufacturing activities.

8. The City shall develop and implement programs aimed at preservation and upgrading of the City's downtown area by alleviating congestion and providing off-street parking. The City will encourage the renovation of existing buildings in the downtown core area.

9. The City shall encourage the development of convention and tourist related facilities in the urban area.

10. The City shall encourage research and development of products and markets resulting in more efficient use of under-utilized renewable and nonrenewable resources, including wood waste, recyclable materials and energy systems.

TRANSPORTATION ELEMENT

URBAN AREA

ROSEBURG

R

COMPREHENSIVE PLAN

ORDINANCE NO. 3249

AN ORDINANCE AMENDING THE ROSEBURG URBAN AREA COMPREHENSIVE PLAN BY ADOPTING AND INCLUDING THE TRANSPORATION SYSTEM PLAN BY REFERENCE

WHEREAS, the Roseburg Urban Area Comprehensive Plan was originally adopted by the Council and effective July 1, 1982, and all subsequent and future amendments thereto have been and will continue to be adopted and incorporated into Roseburg Municipal Code Chapter 11.02 through the adoption of Ordinance 2980; and

WHEREAS, the Roseburg Land Use and Development Regulations set forth in Chapter 11.04 of the Roseburg Municipal Code established the procedures for hearing comprehensive plan amendments; and

WHEREAS, after due and timely notice, on September 18, October 2, and October 16, 2006 the Roseburg Planning Commission held public hearings regarding the proposed adoption of the Transportation System Plan (TSP) and its incorporation into the Roseburg Urban Area Comprehensive Plan. Following the conclusions of the hearings, the Planning Commission adopted Findings of Fact and forwarded the matter for Council consideration; and

WHEREAS, after reviewing the recommendation of the Planning Commission and conducting a public hearing on the subject TSP on November 27, 2006, the Council concludes that the Transportation System Plan, with certain changes and conditions as specified in the Findings of Fact and Decision Document (Exhibit A), should be adopted and incorporated by reference into the Roseburg Urban Area Comprehensive Plan:

NOW, THEREFORE, THE CITY OF ROSEBURG ORDAINS AS FOLLOWS:

SECTION I. The City Council hereby adopts the attached Findings of Fact and Decision Document (Exhibit A) regarding the proposed adoption of the Transportation System Plan, with the changes and conditions attached thereto. Such Plan with the changes and conditions shown in the Findings of Fact and Decision (Exhibit A) are hereby adopted and incorporated into the Roseburg Urban Area Comprehensive Plan and replace the Transportation Element of the Roseburg Urban Area Comprehensive Plan.

SECTION II. The City of Roseburg Urban Area Comprehensive Plan is hereby amended by reference to include the Transportation System Plan, with changes and conditions as shown on Exhibit A, to replace the Transportation Element of the Roseburg Urban Area Comprehensive Plan.

SECTION III. The City Recorder, at the request of, or with the concurrence of the City Attorney, is authorized to administratively correct any reference errors contained herein or in other provisions of the Roseburg Municipal Code and/or the Roseburg Urban Area Comprehensive Plan as amended by the provisions added, amended, or repealed herein.

PASSED BY THE COUNCIL THIS _11th__ DAY OF __December____, 2006.

APPROVED BY THE MAYOR THIS _11th____ DAY OF _December___, 2006.

_____
Larry Rich, Mayor

ATTEST:

_____
Sheila R. Cox, City Recorder

TSP AVAILABLE IN SEPARATE DOCUMENT

ENERGY CONSERVATION ELEMENT

URBAN AREA

ROSEBURG

R

COMPREHENSIVE PLAN

ENERGY CONSERVATION

Introduction

Oregonians have, until recently, enjoyed inexpensive and abundant energy. Even today electrical energy costs in the Northwest are lower than in any other region of the country. In recent years, however, Oregonians have become increasingly concerned about the rising cost and decreasing availability of energy and we are beginning to realize that our past rate of energy consumption is in many ways less significant than our attitude about how energy is used.

There is little that can be done about current energy supplies and costs; especially at the local level. Conversely, the most effective measures to conserve existing energy supplies can most efficiently be carried out at the local level. This is particularly evident when we realize that in 1975, Americans wasted more energy than 2/3 of the world's population used.[10] I It has been estimated that up to 30 percent or more could be conserved through the development of local resources, enactment of conservation measures, modification of building techniques and land use patterns, and local encouragement of private and public use of natural renewable resources. U.S. energy needs could be met for the next 25 years through conservation and improved efficiency of existing uses.[11]

More efficient energy use can result in reduced operating costs and energy consumption in a residence or commercial building. Likewise, transportation energy consumption can be limited through reduced trip frequency and duration. Energy consumption is not only affected by the heating and cooling of structures, but significantly by the location of land uses in relation to one another. Conservation measures can be effectively implemented only at the local community level because this is where land use decisions are made. Cities are finding that conservation is the cheapest source of power. The energy saved can be used to accommodate prudent future growth.

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[10] Community Planning, Oregon Department of Energy, September 1979.
[11] Ibid.

The State of Oregon has taken steps to initiate energy planning. Goal 13 of the Land Conservation & Development Commission's (LCDC) Goals & Guidelines mandates local governments in Oregon to establish comprehensive energy policy as an element of long range land use. Goal 13 states:

> "Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles."

Oregon is concerned about conservation because its population growth rate has doubled the United States growth rate in the period of 1970 to 1980. Roseburg's growth rate has equaled that of Oregon during the same period. This rapid growth means that proper land use and energy planning is imperative. Several cities in Oregon have approached their energy planning with great success. Each city has its separate and unique problems, but two points hold true in every case. Point one is concerned with changing from a basic thinking of "leave it to the federal government" to undertaking a more active approach of "let's do it ourselves." The second point is that every successful city has had broad citizen support of an energy program.

It is important to understand from the outset that the Energy Conservation Element of the Roseburg Urban Area Comprehensive Plan must, because of the limiting constraints of time, staff and currently available data, fall short of being regarded as a comprehensive energy study. This in no way lessens the need for an in-depth study and the City should seriously consider the formulation of an Energy Plan in the near future. Such an Energy Plan would be formulated with the following objectives in mind:

1. To identify current energy consumption patterns;
2. To project future energy consumption patterns;
3. To identify possible future energy constraints and possible consequences of such constraints;
4. To identify and evaluate in more detail techniques for conserving energy and increasing energy efficiency;
5. To more fully evaluate the consequences of alternative land uses and development patterns; and,

6.To identify a broader range of policy options for achieving energy efficiency and economy.

The Energy Conservation Element then should be regarded only as a preliminary study, with its scope broadly focused on problems of energy consumption and on related planning and economic policy issues. The generalized calculations and analyses contained in this element are all based on information which is highly variable and continually subject to change. Finally, the contribution to the Comprehensive Plan that is intended by this study is not so much a definitive calculation of energy consumption, conservation, and related economic impacts, but is rather an approach to providing a basis for decision-making during the planning process.

ENERGY SOURCES AND AVAILABILITY

The types of energy (energy forms) used in the Roseburg urban area are either produced locally or imported from outside the region. Imported energy forms include petroleum products, natural gas and electricity. These imported energy forms usually require large capital investments to be produced and distributed, and have been readily available for use. Local energy forms include wood products, solar energy, and human activity (bicycle riding, walking, etc). The cost of producing and distributing many of these energy forms is relatively lower than for imported energy. However, not all urban area residents have access to them.

Local Energy Sources

Energy forms that are locally produced are not subject to the same magnitude of cost and supply fluctuations experienced by imported energy forms. These energy forms are usually obtainable directly from the source by individual consumers, and are inherently low in cost or present in abundance. At the present time wood products are the most widely used local energy form. Other examples of local energy forms are solar and human power.

In Roseburg, the majority of the energy provided by wood products is used for residential space heating. They also provide a portion of the energy used by lumber manufacturers and are used to generate electricity at the Roseburg Lumber Company mill in Dillard. The supply of this locally available energy resource is to a significant degree dependent on the activities of the timber industry, as the majority of firewood and other wood products used for energy production are made available as a by-product of timber harvesting and/or manufacturing operations. Uncertainties about future production levels in the area's wood products industry also creates uncertainty about the future availability of wood products used for energy purposes, unless there is a corresponding increase in the amount of timber harvested solely for energy production. At the same time, the cost of this resource can be expected to increase when its availability as an industrial by-product decreases.

Solar power is readily available in many parts of the Roseburg urban area for space and water heating. Locations on the north side of hills and other sites with tall obstructions to the south do not receive enough direct sunlight to economically use "active" solar systems (see next paragraph for a detailed explanation of "active" and "passive" solar systems). An on-site investigation of each location is needed to determine the amount of solar energy which is "available" for use. Generally, at least some of the benefits of passive solar systems are available to almost all Roseburg area residents, while the use of active solar systems is more limited.

Passive solar space heating systems utilize inactive elements of home design and construction to provide heat. These elements can include house color, building orientation to receive maximum solar exposure, and the placement and design of windows to receive maximum sunlight during the heating season. The cost of utilizing these techniques is relatively low, especially for new construction. Active solar heating systems use pumps, fans, or other equipment in their operation, rather than the "passive" techniques mentioned earlier. The most commonly used active solar heating systems are solar water heaters. A more detailed discussion of passive solar techniques is contained in a later section of this element.

According to Oregon State Department of Energy, active solar systems can economically provide over 25 percent of the space and water heating needs of many homes.[12] At the present time, manufactured active solar systems are not cost competitive with conventional energy forms such as electricity or natural gas due to current energy prices. In the future, this relationship will change due to the increasing cost of these conventional energy forms. The cost of active solar energy systems to the individual user is reduced through the subsidy provided by state and federal tax credit programs.

Human activity is one locally available source of energy that is often overlooked, perhaps because it is taken for granted. Many human activities can eliminate the consumption of other forms of energy. For example, walking and bicycling can take the place of motor vehicles for many transportation needs. These activities are available to anyone in good health and at relatively low cost, in terms of the equipment that is needed.

Imported Energy Sources

The major energy forms imported to the urban area are natural gas, electricity, and petroleum products. At the present time, petroleum provides by far the largest portion of the urban area's total energy needs. Unrefined crude petroleum is not used as a source of energy in Roseburg, but in its refined forms provides all the energy used for transportation purposes and a small portion of the energy used for residential space heating. The supply and cost of this energy form is affected by the actions of many groups: The Organization of Petroleum Exporting Countries (OPEC), other oil producing nations, the U.S. government, multinational, oil corporations, and local petroleum retailers.

The supply of petroleum products has fluctuated during the past few years in the Roseburg area as well as in the rest of the U.S. During this period, the price of these products has rapidly increased.

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[12] Oregon's Energy Future. 34d Annual Report, Oregon Department of Energy, January 1979.

The future supply of petroleum may increase from present levels as a result of potential OPEC, U.S. government, and/or oil company actions. However, if demand for petroleum continues to increase as it has in recent years, there will probably be shortages of supply regardless of what measures are taken to increase petroleum production. The future cost of petroleum can be expected to increase at an average rate greater than inflation due to OPEC pricing policies, deregulation of domestically produced petroleum prices, and increasing production costs.

Natural gas is supplied to the Roseburg area by California Pacific National. Residential users consume about 65 percent of the natural gas used in the Roseburg urban area while commercial users consume the remaining 35 percent. California Pacific reports no "industrial" gas users in the Roseburg area. About 60 percent of California Pacific's natural gas is imported from Canada, but this supply may be reduced in the future due to the Canadian national policy of curtailing energy exports when their energy needs increase. Reductions in Canadian gas supplies may be offset by natural gas from Alaska's North Slope and other locations in the continental U.S.

Natural gas prices have experienced recent increases, but at a much lower rate than petroleum price increases. In the future, gas prices can be expected to increase as the price rate is tied to the prevailing world price of crude oil. The price of natural gas has been regulated by the Federal Energy Regulatory Commission (or its predecessors) since 1954. Gas produced in the U. S. is subject to the provisions of the Natural Gas Policy Act of 1978. which is part of the National Energy Act recently passed by Congress. Under the provisions of this law, the price of certain types of gas (such as gas discovered after 1984) will be deregulated, while the price of the remainder of gas would increase at the rate of inflation. Certain industrial consumers may initially pay more than other gas consumers under the present pricing policy. Briefly, natural gas prices will rise in the future, with the exact increase determined by the source of the gas which is used, and the type of users.

Electricity is the most commonly used energy form in the Roseburg urban area for all purposes except transportation. Within the urbanized area electricity is supplied

by Pacific Power & Light Company. Much of the rural area outside the urban area is served by Douglas Electric Cooperative.

Unlike other energy forms, such as natural gas, it is not possible to assign a specific generation source for electricity. While PP & L operates hydroelectric generation facilities on the upper North Umpqua River about fifty miles east of Roseburg, the generation and transmission system within Douglas County is an integral part of a much larger regional system. It is not possible to evaluate or examine one part of the system without considering the entire system. More than a cursory description of the overall system would be beyond the intended scope of this element. However, in order to gain some perspective of the relationship between the urban area and the larger electrical supply picture, a brief review is presented.

Pacific Power & Light currently produces about 80 percent of its power through 33 hydroelectric plants and seven steam electric plants. Two-thirds of PP & L's electricity comes from coal-fired steam plants that are located in Wyoming and Washington. The hydroelectric plants produce 13 percent and the remaining 21 percent is purchased, primarily from the Bonneville Power Administration.

The amount of electricity consumed in the urban area and the Pacific Northwest is increasing, primarily due to population growth.

During the past ten years PP & L has experienced an average annual growth rate of 4.5 percent in its Roseburg District and the company projects the growth rate in electrical use to level off at around four percent in the near future.

As demand increases, new generating facilities must be built and ways must be found to make existing supplies serve greater numbers of people. The expansion of existing and construction of new hydroelectric facilities is not expected to provide an adequate amount of power to meet anticipated demands. The best hydroelectric sites have in many cases already been developed and the maximum number of generators have already been installed or are under construction, thereby eliminating further

expansion. Environmental considerations, such as salmon migration, act to restrict the number and size of potential hydroelectric projects.

PP & L planners estimate that the company can realistically expect to bring new power on line at an average rate of,3.7 percent, or slightly less than anticipated demand. PP & L is actively pursuing a course to head off the potential shortfall through conservation. Conservation is discussed in a latter section of this element.

ENERGY CONSUMPTION

This section of the Energy Conservation Element attempts to describe, in general terms, the amount and manner in which energy is consumed in the Roseburg urban area and ideas for greater efficiency through conservation. Unfortunately, very little information is currently available showing specific consumption patterns for the urban area; or for Douglas County for that matter. Energy suppliers by nature are relatively unconcerned with such arbitrary geographic distinctions as city limits or county lines and look instead at a broader, regional view of energy flow. Also, individual sectors of the economy consume energy for different purposes, or end uses.

On the brighter side, however, significant amounts of data have been gathered on the energy consumption picture at the state level, from which many assumptions can be drawn and applied locally. Throughout this section of the element, the assumption is made that the Roseburg urban area is an integral, and to a degree, typical and representative subsample of the larger state energy picture.

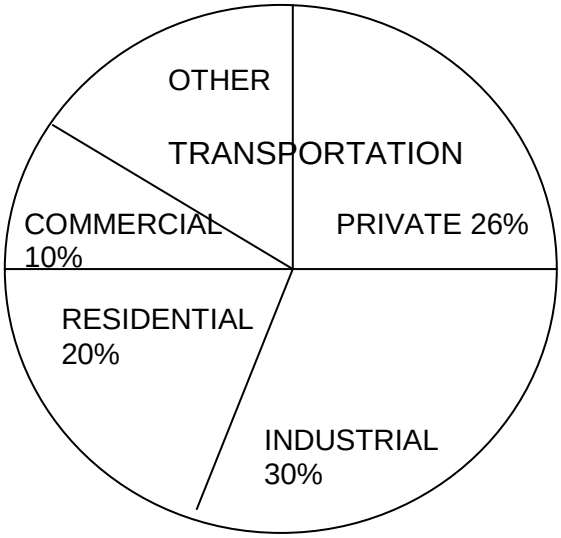
The discussion of energy consumption and conservation in the urban area is broken into Transportation, Industrial, Commercial, and Residential sectors. Chart E-1 illustrates the direct use of total energy consumed in Oregon by each of these sectors.

Transportation Sector

More energy is consumed for transportation purposes than for any other use in the urban area. Virtually all of this energy comes from petroleum. This relatively large

use of energy for transportation is not peculiar to Roseburg, as Oregon and the U.S. as a whole use more energy for transportation than for any other purpose.

CHART E-1
OREGON'S DIRECT ENERGY
USE BY SECTOR - 1977



214 MILLION BTU'S PER CAPITA

SOURCE: ODOE, COMMUNITY ENERGY PLANNING

This sector is unique in that its end uses are required by all other sectors for both business and personal use. Business end uses include the transportation of raw materials and finished goods and the distribution of products to wholesale and retail outlets. Personal end uses include commuting to work and shopping.

The amount of energy consumed by the transportation sector has been projected to significantly increase in the future, given present rates of transportation energy consumption (see Transportation Element. The estimated number of average weekday vehicle trips generated within the Roseburg urban area is expected to increase by about 70 percent from 1977 to the year 2000 (from 83,000 trips to 142,000 trips).[13] Given this projected increase in travel, substantial improvements in transportation efficiency will need to be implemented in order to minimize increases in energy consumption.

Because so much energy is used for transportation, primarily for private automobiles, this is one of the most important areas to institute conservation practices.

There are a number of policies which the City can implement to help reduce vehicle consumption in the urban area. Possibly the most pertinent is to encourage a shift of some traffic to more fuel-efficient modes. Such policies are found throughout the Comprehensive Plan. With the exception of the airplane, the private auto consumes more BTU's per passenger mile than any other form of transportation. Table E-1 compares the energy efficiency of various transportation modes.

TABLE E-1
COMPARISON OF ENERGY EFFICIENCY
OF TRANSPORTATION MODES

Urban	Energy (BTU/Passenger-mile)	Inter-City	Energy (BTU/Passenger-mile)
Bicycle	200	Bus	1,600
Walking	300	Railroad	2,900
Mass Transit	3,800	Automobile	3,400
Automobile	8,100	Airplane	8,400

SOURCE: Citizens Action Guide to Energy Conservation, Citizens Advisory Committee on Environmental Quality, Washington, D.C., 1974.

Railroads are the most fuel-efficient means man has yet devised for overland transportation of freight, using only one-quarter as much energy to carry cargo as a truck. Their operation for this purpose should be encouraged by any means at the disposal of the City, including the use of caution in regulating railway operation within the urban area.

Probably the greatest fuel savings, however, could result from increased use of the City's transit system. Although ridership on the system has increased steadily since its initiation in 1976 (See Transportation Element), it still operates at an inefficient level.

To be widely used a public transit system requires high densities of living areas and working/shopping places along major transportation corridors. This must be a factor considered in the community planning process if the public bus system is ever to

[13] Roseburg Major Street Traffic Safety Program, September 1978.

become an efficient energy saver. Distribution of population and businesses over a large area makes public transit too costly and inefficient to operate.

It is assumed that the economic impact of increasing petroleum prices will continue to encourage transportation energy conservation. Bicycle use will continue to increase, mass transit ridership will increase and sales of new vehicles that are relatively energy-inefficient will continue to decline.

A number of factors such as vehicle emission controls, vehicle weight and engine efficiency can also greatly effect the magnitude of transportation energy consumption, but can only be affected at the state and federal levels of government, while other factors such as individual trip length and choice of transportation mode (such as bicycle versus auto) can be influenced by local land use policies.

Industrial Sector

Examination of industrial energy consumption presents difficult analytical problems. In many cases energy suppliers make no distinction between "industrial" consumers and "commercial" consumers. Others define "industrial" consumers by the amount of energy purchased, while others make the distinction based on type of operation involved. For this reason, there is no data available on actual energy consumption by the industrial sector in the urban area.

Consumption of energy in the industrial sector is best estimated using the quantity of energy needed to produce one dollar of value added to a product for each industrial group (i.e., lumber, paper, primary metals). "Value added" is an indicator of an industry's net contribution to a product's finished value. There are other estimating methods available, such as the energy per employee ratio for each industrial group, but this method does not account for changes in substitution of energy and equipment for labor.

From value added estimates, each industry group's share can be estimated for: (1) contribution to Douglas County's economy* (as indicated by number employed and

value added) and (2) energy intensity. Energy intensity is a measure of the quantity of energy consumed to produce employment, wages and profits. In terms of energy conservation, a benefit occurs when industry is able to decrease the quantity of energy consumed for production without decreasing employment, wages or profit.

Data necessary for calculating energy density will not be available until new census is published. However, the Oregon Department of Energy has calculated energy intensity and other data for Oregon which can be used to discuss energy consumption in Douglas County's industrial sector. Table E-2 shows percent of total for major industries energy consumption, employment and value added for Oregon and employment for Douglas County. As indicated, lumber and other manufacturing are the largest employment groups in Oregon. Value added generally follows the percent employed ranking with minor variations. Percent employment for each group in Douglas County, however, controls that for Oregon. Employment is heavily concentrated in the lumber industry with other industrial groups each employing ten percent or less of the total work force.

*NOTE: Statistics necessary to determine "value added" are currently only available on a county-wide basis (see Economic Element).

TABLE E-2
SHARES OF MAJOR INDUSTRIES OF TOTAL MANUFACTURING ENERGY CONSUMPTION
EMPLOYMENT AND VALUE ADDED (%) OREGON AND DOUGLAS COUNTY
1976

		OREGON					DOUGLAS COUNTY		
SIC* Code	Industry Group	Total Energy	Employ-ment	Rank	Value** Added	Rank	Employed	Employ-ment	Rank
20	Food	8	12	3	12	3	600	5	4
24	Lumber	25	40	1	34	1	8,653	73	1
26	Paper	28	5	4	9	4	920	7	3
28	Chemicals	7	1	6	2	6	----	--	-
33	Primary Metals	21	5	5	7	5	475	4	5
	Other Mfg.	14	38	2	36	2	1,200	10	2
	TOTAL	100	100		100			100	

SOURCE: Derived From ODOE, 4th Annual Report, and Directory of Oregon Mfgs.

* Standard Industrial Classification
** "Value added" is an indicator of an industry's net contribution to a products finished value.

Assuming that percent value added and employment are similar (for ranking purposes) as found for the state, then by rank the lumber industry is the largest energy consumer in Douglas County. Without detailed data pertinent to Douglas County, further ranking of industrial groups is inappropriate.

Chart E-2 shows the quantity of energy needed to produce a dollar of value to a product for each industrial group.

Although additional inferences cannot prudently be made from this data, general conclusions can be made from a similar energy study completed by the Mid Willamette Valley COG. They are:

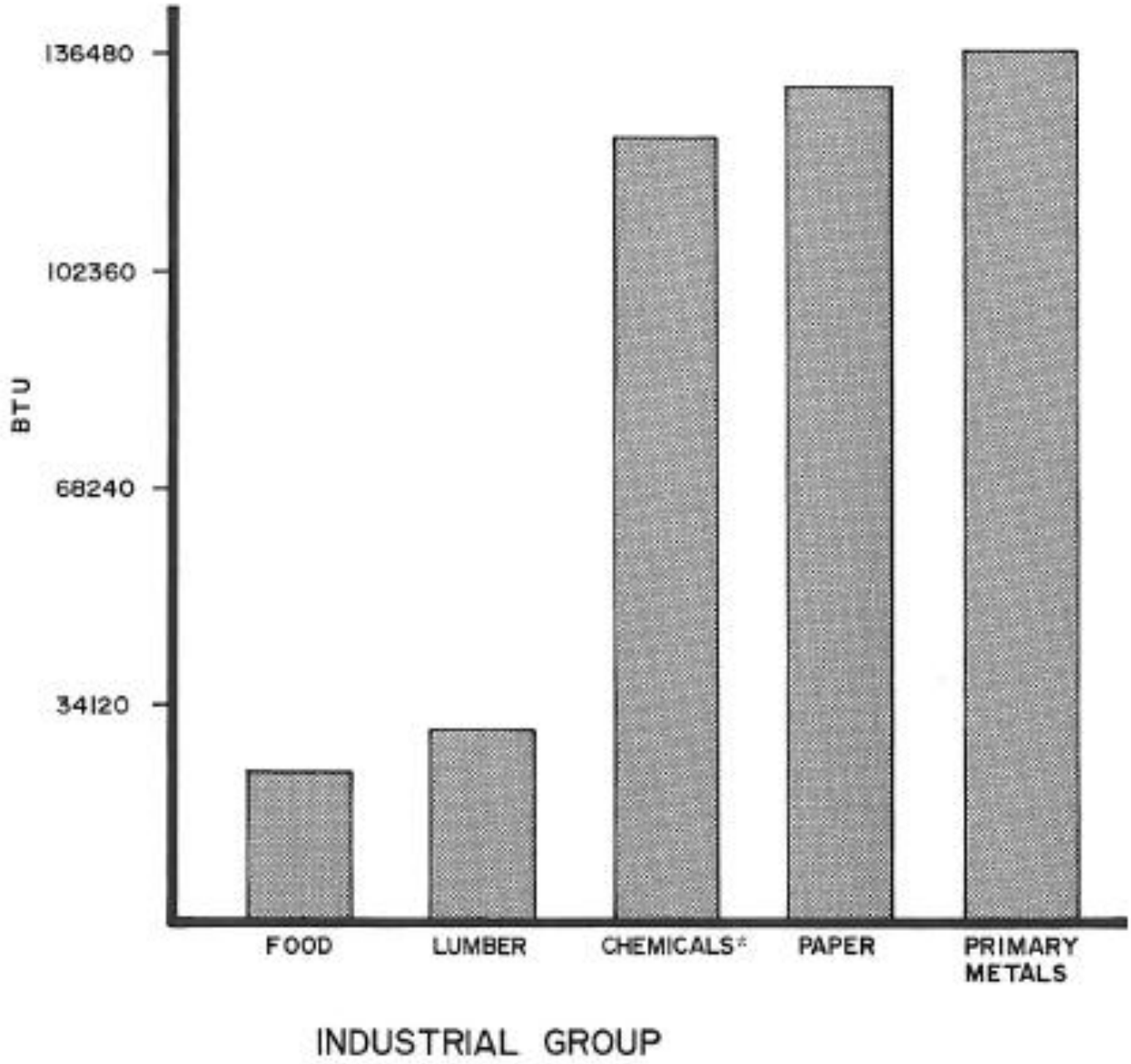
(1) "It is the resource-based industries that show large amounts of energy consumption . . . to the amounts of value added and jobs that they produce. In contrast, the industries that show very small energy investments relative to the same value added and numbers of jobs are those whose finished products are not directly related to extracted resources." (e.g., Electrical and electronic machinery.)

(2) ". . The larger the energy cost ratio in an industry, the more exported out of the community to pay the cost of fuel.

The urban area's economy is largely resource-based, a characteristic that will probably continue in the future. Therefore, it is reasonable to assume that local industries will continue to need a high ratio of energy consumed to employee and energy consumed to value added of product. It is further reasonable to assume that Douglas County and the urban area will continue to be dependent on imported refined energy (e.g., petroleum, electricity) or consume renewable energy that could be exported in raw form (wood) or embodied in a manufactured product (lumber).

CHART E-2

QUANTITY OF ENERGY REQUIRED TO PRODUCE ONE DOLLAR OF ADDED VALUE



*THERE ARE NO CHEMICAL INDUSTRIES IN DOUGLAS COUNTY

Commercial Sector

The commercial sector is in many ways the most difficult part of the economy to analyze from an energy point of view. There are three Principal impediments to the identification of problems and the formulation of policies for energy conservation in commerce. First, energy consumption in the commercial sector is difficult to quantify because commercial buildings differ in structure, in use, and in the internal systems which make them function. Second, in the Roseburg urban area there is insufficient data on the history, efficiency and outlook for energy use in this sector. Without such information, it is difficult to determine what can or should be done to improve conservation. Third, there is substantial disagreement over what methods or programs would be effective in saving energy in the commercial sector and to what extent state and local government should be setting policies and creating programs to achieve greater energy conservation in this sector. It is generally agreed, though, that not enough is known about commercial consumption and waste for such policy and program initiatives to go forward intelligently.

The Oregon Department of Energy has conducted some cursory surveys of commercial energy use and has drawn some generalized conclusions about this sector.

It is estimated that approximately ten percent of the urban area's energy supply is consumed by commercial business. Office buildings account for only a small portion of commercial energy use. Service buildings such as hotels, medical facilities and cultural structures account for 43 percent, while retail and wholesale buildings consume almost half at 49 percent.

The commercial sector is similar to the residential sector (see following section on Residential Sector) in energy consumption and potential available energy savings. The differences, of commercial buildings to residential units, is that the commercial buildings typically have limited building usage, and a potential to overheat; which means heating a building while not occupied, higher lighting levels, and a higher density of human occupation. Energy use in a commercial building depends on its size and the particular activities that take place. The largest portion of commercial energy is consumed by lighting, 30 percent; followed by space heating, 21 percent; air

conditioning and ventilation, 18 percent; refrigeration, 16 percent; and water heating, 14 percent. Estimates in breakdown of energy used by function differ greatly.

Like residential units, existing commercial buildings can be weatherized, while future buildings, in some instances, can be solar oriented. It has been estimated as much as 43 percent energy savings is possible through conservation in the commercial sector. The American Institute of Architects states that improvements in building operations can save 30-50 percent of the operating energy in existing buildings and 50-80 percent in new buildings. The older commercial buildings in Roseburg's downtown have the advantage of attached walls, which increases insulation and decreases outside wall exposure.

The following is a list of energy saving considerations specifically aimed at commercial establishments:

1. Increase the use of sunshades, both interior and exterior;
2. Use reflective or heat-absorbent glass;
3. Locate structures to minimize "heat-loading" (30% heating or cooling load reduction can occur through proper orientation);
4. Increase structural mass and use highly insulative materials;
5. Increase plantings;
6. Extend building usage.

As in the construction or repair of new homes, greater attention must be given to the "lifecycle cost" of commercial buildings so that the end use and operating efficiency maximize the concept of energy conservation.

A successful commercial energy program whether at the local, state, or national level, will depend upon involvement by the commercial sector. Significant energy reduction could take place with combined efforts by business operators and owners. Through education programs, including advertising, workshops, individual consultation, and appliance labeling, the commercial sector could begin to realize the problem of lack of energy and the need to conserve. By implementing incentive programs, which would make the conservational adjustment easier and more profitable, the business sector

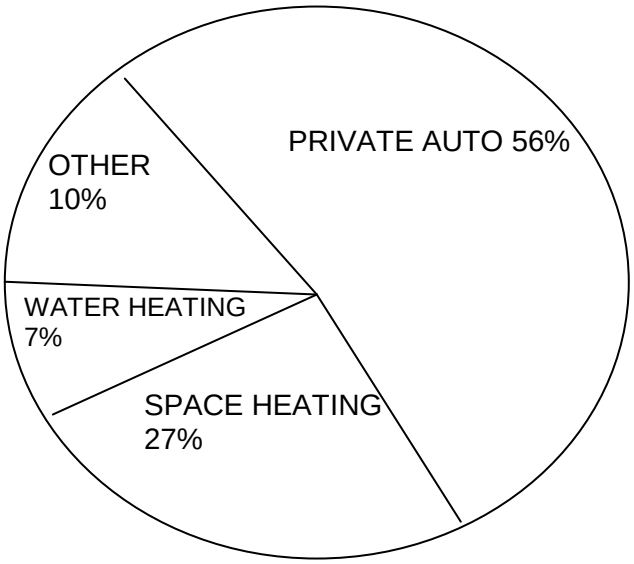
could check their rising retail prices and keep their percentage of profit. Example programs include: government low interest loans or direct grants, utility bank loan, tax credits, investment tax credits and accelerated depreciation. A significant impact could be made by the commercial sector in the overall total energy use in the Roseburg urban area.

Residential Sector

Residential energy consumption is assumed to be significantly less than the sectors previously discussed. Current estimates suggest that no more than twenty percent of total energy consumption is attributed to the residential sector. Chart E-3 illustrates how energy is used by the average household (this section only deals with in-home energy use; actually, about 56 percent of a household's total energy consumption is attributed to operation of the private automobile).

As can be seen in Chart E-3, over 60 percent of a typical household's energy consumption is for space heating. In some homes as much as 80 percent of the household energy budget goes for space heating. The amount of energy required for space heating depends to a large extent on how well a house is insulated, the temperature setting of the thermostat, the size of the house, and to a lesser extent, the number of household members. Tables E-3 and E-4 show estimates of the amount of energy by fuel type needed to heat typical new and existing homes in the urban area.

CHART E-3
PERSONAL DIRECT USE
OF ENERGY - OREGON



PERSONAL CONSUMPTION WAS 45% OF TOTAL DIRECT ENERGY USED.
100 MILLION BTU'S PER CAPITA

SOURCE: ODOE, COMMUNITY ENERGY PLANN!NG

TABLE E-3
AVERAGE ANNUAL ENERGY REQUIRED FOR SPACE HEATING NEW UNITS
(Constructed Since 1975)

	Typical New Single Family		Typical New Apartment		
Fuel type	Amount	Btu's (million)	Amount	Btu's (million)	Energy Use Efficiency
Fuel Oil #2	860 gal.	119.4	340 gal.	47.2	40%
Natural Gas	1,015 therms	101.5	400 therms	40.0	47%
Electricity	14,700 kwh	50.2	5,800 kwh	19.8	95%

TABLE E-4
AVERAGE ANNUAL ENERGY REQUIRED FOR SPACE HEATING EXISTING UNITS
(Constructed Prior to 1975)

	Typical Existing3 Single Family		Typical Existing2 Apartment		
Fuel Type	Amount	Btu's (million)	Amount	Btu's (million)	Energy Use Efficiency
Fuel Oil #2	1,000 gal.	138.8	409 gal.	56.8	40%
Natural Gas	1,18 0 therms	118.0	483 therms	48.3	47%
Electricity	17,070 kwh	58.3	7,000 kwh	23.9	95%

NOTE:
1. 1700 square feet, three bedroom average.
2. 700 square feet, 1 1/2 bedroom average.
3. 1300 square feet, three bedroom average.

SOURCE: Energy consumption and efficiencies were based on field survey data from PP & L,' NW Natural Gas, and the Oil Heat Institute. These numbers were verified in Energy Consumption in the Pacific NW, 1971, Washington State Environmental Research Center (1974).

Energy use efficiency (right hand column) tells us how much heat is actually derived from fuel delivered to a house. For example, for each British thermal unit (Btu) of natural gas delivered, 53 percent is wasted while less than half (47 percent) is converted to heat energy. In practice, natural gas heaters are considered to be the most efficient of all traditional forms of space heating. While the "end use efficiency" of electricity is high, a large amount of energy is lost in thermal generating plants and in transmitting electricity to the home.

Tables E-3 and E-4 show that a typical new home is larger (1700 vs. 1300 square feet) than typical older houses but requires significantly less energy to heat. This difference can be attributed to differences in insulation levels in older homes. Houses built prior to 1950 have either no insulation or only loose filled insulation that has since settled and now offers little or no protection. Between 1950 and 1975 houses were built with somewhat better insulation than previously, with up to two inches of insulation in the walls and four inches in ceilings. In April, 1975, the Oregon State Building Code was revised to require three inches in walls and six inches in ceilings for all new

construction. The result is a family living in a typical Post-1975 house will use about 34 percent less energy per square foot than the same family living in a house of equal size built prior to 1975. Obviously, improved insulation of older homes can produce a significant reduction in energy consumption.

Housing data from the 1970 U.S. Census, plus records of the City Building Department reveal that about 45 percent of the homes in Roseburg were constructed prior to 1950 and 43 percent were constructed between 1950 and 1975. Table E-5 provides a breakdown of Roseburg's housing stock by age.

TABLE E-5
AGE OF DWELLINGS IN ROSEBURG URBAN AREA

PERIOD BUILT	Pre 1940	1940-49	1950-59	1960-69	1970-74	1975-79
NUMBER	1564	1230	1463	814	434	725
PERCENT	25	20	23	13	7	12

SOURCE: 1970 U.S. Census and Roseburg Building Department Statistics.

Space heating in Roseburg area houses is provided by three basic energy sources: natural gas, electricity, and stove oil. In 1970 these three basic energy forms were used in Roseburg homes in nearly equal proportions. There is no information readily available to show what percentage of the current housing stock now uses gas or electricity for space heating compared to the percentage using stove oil. However, in recent years there has been marked trend away from oil. It is estimated that about 40 percent of all new dwelling units constructed in the Roseburg urban area use natural gas for space heating. This compares to a statewide average of 60 percent natural gas use in new homes.

In 1970, about two percent of the area’s homes relied on wood or wood waste products as the primary heating fuel. Information on current use of wood fuel is not available; however, it is known that its consumption for residential space heating has increased dramatically during the last few years. It is likely that as the cost of traditional energy sources increases, more families will turn to wood for some or all of their heating

needs. Indeed, the long-term prospects for wood as fuel appear good in the Roseburg area. Chart E-4 illustrates the declining percentage of Oregon households which use petroleum (stove oil) for space heating.

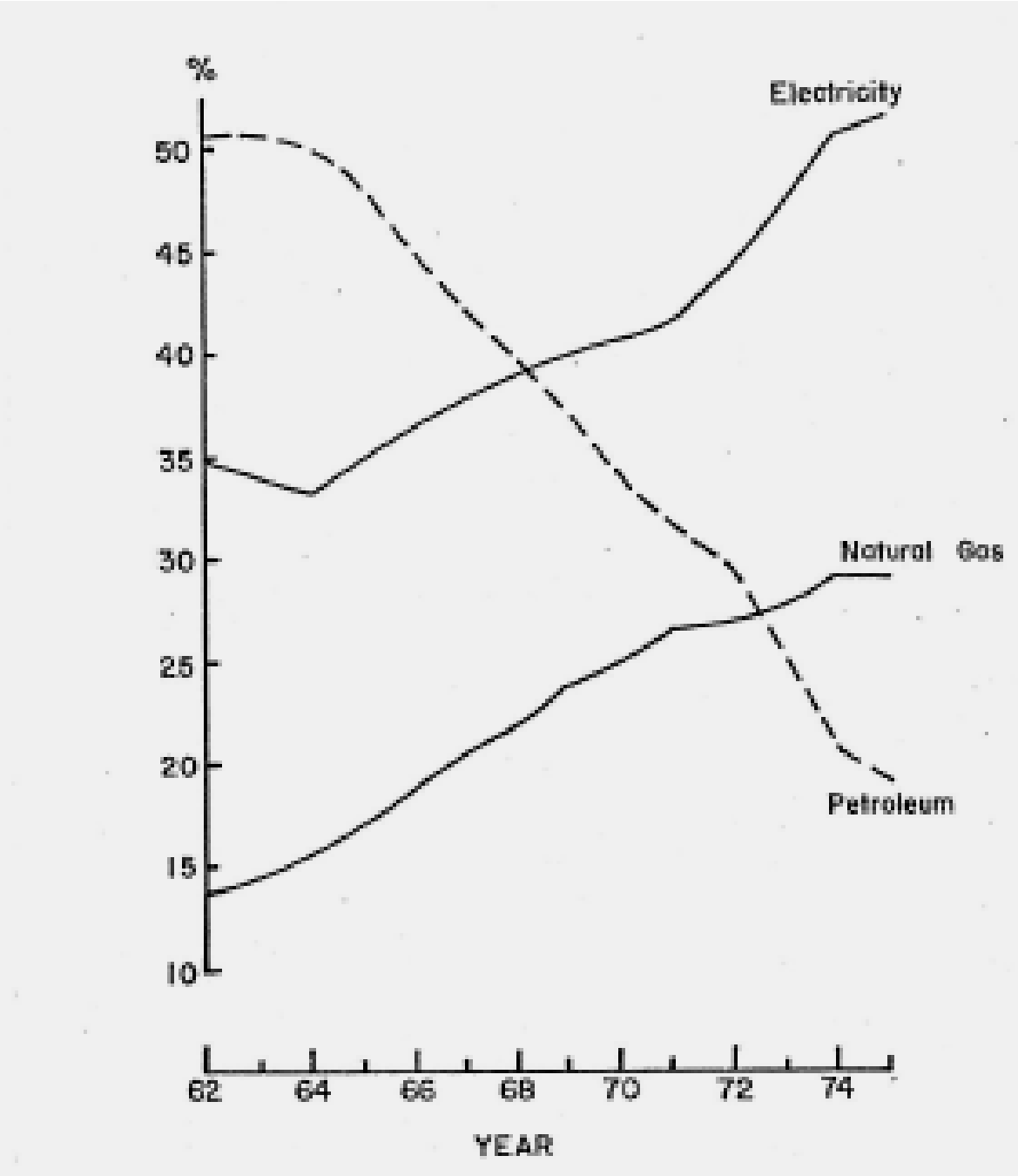
Water heating consumes approximately 16 percent of the energy used in the residential sector. The amount of energy used to heat water is directly related to the number of people in the household. An average household uses about 50 gallons of hot water each day. Of that amount approximately half is for showers and baths, 29 percent for washing clothes, 12 percent for dishwashing and ten percent for kitchen and washbasin tap uses.

Table E-6 lists appliances commonly found in Roseburg urban area households and the energy requirements of each. Appliance usage in apartments is somewhat below that of single family use because there are fewer people in apartment households.

Almost all of the appliances listed in Table E-6 use electricity. The only significant exceptions are gas ranges and clothes dryers. In the future only 5 percent of all new ranges are expected to be gas fired while few, if any, gas dryers will be delivered.* A typical single family household would use approximately 4.1 million Btu’s annually cooking with an electric range. The same household would use over 11 million Btu's cooking with a gas range.* Until recently the pilot light in most gas stoves burned continuously, consuming about six million Btu's annually. Today, new stoves are equipped with electric starters in place of pilot lights.

*SOURCE: Northwest Natural Gas Company

CHART E-4
CHANGING COMPOSITION OF
ENERGY CONSUMPTION IN THE
RESIDENTIAL SECTOR IN OREGON



SOURCE: ENERGY CONSUTAPTION AND RELATED DATA IN OREGON: SOME HISTORICAL PERSPECTIVES, OREGON DEPT. OF ENERGY, 1977.

TABLE E-6
ANNUAL ENERGY USED FOR TYPICAL APPLIANCES

	Single Family		Apartment	
Appliance Type	Kwh/Yr	Million Btu/Yr	Kwh/Yr	Million Btu/Yr
Refrigerator (frost free)	1,600	5.46	1,400	4.78
Range (electric)	1,200	4.10	1,100	3.75
Dishwasher	300	1.02	---	New apts. only
Clothes Washer	100	0.34	---	
Clothes Dryer	1,000	3.41	---	--
Color TV	500	1.71	450	1.54
Other Miscellaneous	700	2.38	500	1.71
Clock		(12)		(12)
Coffee Maker		(144)		(110)
Food Blender		(12)		(5)
Hair Dryer		(24)		(20)
Iron		(156)		(110)
Radio		(84)		(60)
Toaster		(20)		(15)
Vacuum Cleaner		(72)		(45)
Sewing Machine		(12)		(8)
Other		(164)		(115)
TOTAL	5,400	18.43	3,450	11.78

SOURCE: Oregon Department of Energy, Fourth Annual Report.

As noted above, lighting accounts for only two percent of a typical household energy budget. The average single family household uses about three million Btu's per year for lighting (900 kwh). An average apartment will use slightly less energy for lighting.

Two recent factors are acting to reduce energy consumption in the residential sector. Oregon's Uniform Building Code has been recently revised to require additional insulation and other energy conserving features for new residential and commercial buildings. These features will act to reduce heat losses and thereby reduce the energy consumed for space heating. In addition, both Pacific Power and Light Company (PP&L) and California-Pacific (CP) are providing, free of charge, energy conservation

assistance to their customers who use natural gas or electricity for space heating. These individuals can receive an energy audit of their home or building showing how their energy needs for space heating can be reduced. These services are also available to industrial consumers of these fuel forms. PP&L and CP energy conservation specialists also encourage the use of energy conserving features in the design of new residential and commercial buildings through the advice they provide to local builders and designers.

The total amount of energy consumed by the residential sector will almost certainly increase in the future, as the construction of nearly 10,000 new housing units in the Roseburg urban area is anticipated over the next 20 years. Even if all of these new units utilized the most cost-effective methods of energy conservation that are available, the total amount of energy consumed by this sector will increase. However, the amount of energy consumed by each residential unit is quite likely to decrease as a result of the conservation measures discussed in the following section of this element.

As the price of imported electricity, natural gas and fuel oil continues to rise, residential users will have greater economic incentives to use less of these fuels. The State Building Code changes that were mentioned earlier will act to build in energy conservation features in all new units, assuming that the provisions of the code are followed correctly.

RESIDENTIAL ENERGY CONSERVATION

As noted in the preceding section, space heating is the single greatest user of energy in the home, sometimes using as much as 80 percent of the household energy budget. The chief reasons for this are inadequate insulation, heat loss through windows and doors, and housing designs which do not utilize the sun as a source of heat. Because the Pacific Northwest has always enjoyed very low electrical rates, many older homes were built with no insulation whatsoever. The dollar savings were not enough of an incentive to encourage installation of insulation. Since the State made major revisions to the Uniform Building Code in 1975, all new housing must have insulation, but the requirements are minimal and the Code says nothing about solar utilization or heat loss through windows and doors.

Generally, it is the renter or homeowner who is unnecessarily carrying the burden of poor housing design by paying excessive bills for heating and cooling. This situation does not need to exist. Certain cooperative actions on the part of the City, local community developers, and the area's residents can not only cut individual energy bills, but can reduce local dependence on outside sources of energy.

Existing Housing

Older homes present different problems from newly-constructed ones. Many of them were built in a time when no thought was given to energy conservation. To remedy this, some local governments in Oregon are applying performance standards to the sale of a house. Before a house can be sold it must meet certain heat loss standards. The seller must provide evidence that the house conforms to a list of weatherization standards, or the seller may show by calculations that the house meets a certain minimum heat loss requirement. Additionally, local government can provide public education and consulting programs for homeowners who wish to weatherize their homes.

New Housing

The continuing rise in energy costs will force future homeowners to weatherize beyond current state requirements. This retrofitting will be expensive since the most cost effective way to weatherize is during construction.

One approach toward community residential energy savings has been taken by the City of Eugene, Oregon, in cooperation with the Eugene Water and Electric Board (EWEB), a publicly owned utility. The City has adopted a set of "Energy Efficient Building Standards." These standards are not made mandatory by the City of Eugene, but rather are strongly encouraged by EWEB. EWEB provides free inspection of houses at several times during construction to ensure that buildings conform to the standards and issues a special certificate when construction is completed. Although the voluntary standards do contribute to initial construction cost, such certified houses are in high demand by energy conscious home buyers. The house design advocated by EWEB is similar to the "Arkansas House" which has recently gained much publicity nationwide.

The basic idea behind the design of these houses is to conserve fuel by minimizing heat 'loss. An average 1250 square foot conservation house currently costs about $2,00.0 more to build but cuts fuel costs as much as 80 percent over houses of similar size and style built to the existing state code. The typical heating season is reduced to about three months. Other advantages of the conservation type construction are that summer cooling need is eliminated and the building method can use up to 1500 board feet less lumber than conventional designs. Once these houses gain broader acceptance, labor costs should also decline.

The principal design features which create the conservation effect include:

1. Approximately twice as much insulation (in floors, ceilings, and walls).
2. Approximately 45 percent less glass area.
3. Double glazing on windows.
4. Outside air infiltration reduced 60 percent.

Solar Utilization

One of the most serious obstacles to the utilization of solar energy for heating is design that does not pay proper attention to the possibilities of good solar orientation. It should be emphasized that solar orientation techniques are not the same as conservation, and in fact solar orientation is only effective if the building already has insulation, storm windows and doors, and weather stripping to prevent heat loss.

Often lot layout and lot shape prevent proper orientation of buildings. Large areas of wall and window are forced to face west and east where they cannot take advantage of winter sun and get too much summer sun. In other cases, buildings shade each other in winter.

Where the lot layout and buildings are designed together, buildings, lots and streets can be coordinated so that each building gets optimum solar orientation. Solar orientation can provide the homeowner with a free source of winter heat and is obviously important to those people considering investing in special solar utilization systems. As the price of conventional fuels rises and solar technology develops and becomes more available, it is likely that a site with good solar utilization potential will be significantly more valuable than other sites.

Where lots are planned before buildings are designed or where future improvements may drastically change the shadows cast, it is important that provisions be made to guarantee that the designer or future owner can anticipate what will happen to his view of the sun. Some cities have adopted ordinances, or amended their zoning ordinances, to permit acquisition of "airspace easements" so that a property owner can protect his right to use the sun for heating.

Following are some principles of solar orientation:

1. The largest wall and window areas should face north and south rather than east and west. The south side of a building at 40 latitude receives three times as much winter sun as the east or west sides.

2. To benefit most from this sunlight/heat, major living area (such as living room and kitchen) should be where the large south-facing windows are.
3. A large thermal mass located where the winter sun will shine on it provides heat storage within the house, so the sun's heat can be used even after the sun has set, and tends to moderate day/night temperature swings.
4. Shading should be provided to prevent overheating in summer. It can be in the form of shade trees (deciduous if on the south side of the house) or eaves with a sufficient overhang to block the summer sun.
5. Windows on other sides of the house should be kept to a minimum. Particularly on the west side, windows should be eliminated or provided with adequate shading so the late afternoon summer sun won't overheat the house.

Landscaping

Generally an airspace easement contains provisions concerned with landscaping to protect a homeowner from having the sun blocked by trees. But landscaping can have positive benefits for energy savings. Although this discussion deals specifically with homes, these ideas apply to all buildings.

An especially beneficial effect of trees is their thermal performance. In winter they can act as windbreaks and reduce heat loss from buildings. In summer the surfaces of grass and leaves absorb radiation, provide generous shade, and create cooling by evaporation processes.

To achieve efficient shading, trees need to be placed strategically. This is why pre-planning of lot layout is important. For example, with the sun at a low altitude in the morning and late afternoon, trees give their best performance if located on the southeast, southwest or west sides of a home. Because the mid-day sun is high, trees placed due south will cast a shadow close to themselves. Direct south side shading of a home can be more effectively accomplished with an overhanging eave.

While shade is valuable in summer, sunlight is more welcome in winter. Therefore, trees located on the south, southeast or southwest sides of a home should be the type that shed their leaves in winter. The white oak, for example, provides a large densely shaded area in summer and has an open-branched structure in winter which does not significantly impede the sun. It is also a native tree to this area. Often a prospective development site already has many large white oaks. Strategic location of houses among the trees can assure adequate summer shading while also providing access to winter sun.

Besides their aesthetic and shade-giving properties, properly placed trees can cause diversions in air flow which can be utilized beneficially. Windbreaks divert air currents upward creating an area of relative calm on the leeward side and thereby lessening the home's heating need. Calculations indicate that the heating load on a house with a 20 mph wind is about 2.4 times as great as with a 5 mph wind.

Setback Requirements

Requiring that energy conservation be made a consideration in developments might also encourage greater flexibility in the way houses are situated on lots and the way land is used in a neighborhood. Since much of the buildable land in the Roseburg area is located on prime agricultural soil which should be conserved, and since property values are high, it is important that all outdoor spaces be used to their fullest advantage.

Historically, setbacks for front and side yards have been such that the lot would provide ample space for the house. With today's trend toward smaller lots this often means that a house sitting in the middle of a lot has little usable yard space. Front yards and side yards especially are underused land space.

The zero lot-line house is an example of eliminating one side yard in order to gain one larger side yard. It combines the desirability of the detached single family house with improved utilization of the site for outdoor space. Historically, the use of zero lot-line residences has been limited to planned developments or PUD'S.

Clustering of houses near lot lines is another way of providing more usable space in a neighborhood. It can have the additional advantages of saving energy and money because of reduced road and utility runs, and providing more opportunity to preserve the natural features of the site.

These energy and land efficient concepts have several benefits. They provide for higher densities and smaller lot sizes while still allowing for open spaces. Because lot sizes are small, per unit land costs are kept low . The greatest benefits, however, arise from the potential energy savings. The most obvious is that energy conservation requires orientation of houses in order to respond to solar radiation utilization and wind protection. It should be emphasized that south facing windows receiving full winter sun provide the only form of direct solar space heating which can compete favorably with electricity at this time. Flexibility in site planning is necessary for this, and rigid setback requirements do not normally provide this flexibility.

Residential Streets

Much energy is consumed in construction, use, and maintenance of residential streets. Unnecessarily wide streets consume land that could be placed in other, more productive uses. The City Subdivision Ordinance currently provides for street widths generally 34 to 40 feet wide, but does allow a minimum width of 28 feet within a 50-foot right-of-way in special situations. Although some energy conservation could result from the construction and maintenance of narrower streets, these widths have been deemed the narrowest that proper function will allow. Although the 28-foot width could be reduced in PUD areas or other unique situations where parking and vehicle density could be controlled, the net energy conserved should be carefully weighed against function, site conditions, and long-term use projections. More realistic energy benefits could be achieved by careful planning and design of street layout to reach the most efficient combination of narrow cul-de-sac and sub-collector streets with the wider collector and arterial streets.

RENEWABLE ENERGY RESOURCES

There are various renewable energy resources which, if used, could stem the increasing consumption of conventional energy forms. Although consumption of these resources can not be expected to completely replace conventional fuels, they can fulfill a portion of future energy demand, especially in applications requiring low grade energy or special land uses. This final section of the Energy Conservation Element examines potential renewable energy resources which may or may not be available in the Roseburg urban area. Much of the information contained in this section is the result of research by the Douglas County Planning Department. However, to better understand the potential for the various forms of renewable energy use in the urban area, a brief discussion of some basic principals is required.

Conventional energy forms (electricity, petroleum, natural gas and coal) are in reality refined and stored solar energy (since the sun is the ultimate source of all energy on earth), which we refer to as high grade energy forms. These high grade energy forms are often consumed for work that could be adequately accomplished with low grade energy (renewable resources), but due to their convenience, relative historic low price and the cost of converting equipment, fuel and work are often mismatched. The greatest energy waste occurs by mismatching a high grade energy form to a low grade use. An example: Energy is wasted when petroleum is fired to produce steam for electricity and the electricity is in turn consumed for space heating. Efficiency loss in this example accrues first as the conventional fuel is fired (loss is approximately 65 percent); and secondly during electrical transmission.*

*Nearly 80 percent of the electricity generated from coal fired power plants in Wyoming is lost in transmission before it reaches Western Oregon.

The same space heating is accomplished by substituting low grade energy (e.g., solar, wood, geothermal) thereby freeing refined high grade energy for applicable high grade uses.

Solar Energy

Solar energy is virtually unlimited in supply and poses few environmental problems. It is especially effective as a small scale, on site, supplemental energy potential for heating and cooling.

A passive solar heating system integrated into a dwelling in the Roseburg area can supply 50 percent of the dwelling's annual space heating load. Active solar water heating systems designed for dwellings in the Roseburg area are capable of producing approximately 50 percent of the heat for domestic hot water use and can pay for itself in two to three years.*

A basic problem with using the sun as an energy source for space heating is the economical adaption of solar collectors to existing dwelling units. Solar design is easily and economically integrated into new construction but adaption and conversion of existing dwellings and their heating plants are more difficult and often not economical at present fuel prices. Secondly, not all existing dwellings are located to take advantage of the low winter sun. Existing dwellings located in the shadow of a hill, trees, or other buildings cannot use solar energy as a source of space and/or water heating.

The basic technology exists but the greatest obstacle to common use of solar heating and cooling in the Roseburg urban area lies within the engineering and economic refinements needed to increase efficiencies of heat storage systems and conversion of existing dwellings to solar systems.

*Conversation with Bruce Richey, solar builder and designer, by Douglas County Planning Department.

Geothermal

Data concerning geothermal potential is limited to test holes drilled in a few locations in Oregon and the recording of hot spring locations. This data extrapolated to the State of Oregon as a whole indicates high and low areas of geothermal potential.

Areas of high geothermal energy (temperature over 1500 C) are located along the High Cascade Range which transacts the eastern portion of Douglas County. Potential for energy production decreases rapidly west of the Cascades and only low temperature energy (less than 1000 C) will possibly be found if at all. The area of potential is located within U.S. National Forests which will possibly complicate development, especially in sensitive ecological areas.

Transmission of hot water from geothermal sources is feasible for distances of 100 km with approximately 3 percent energy loss dependent upon volume and market. Technology also exists for transmission of high temperature hot water for generation of electricity and use of the spent water for low grade uses over 100 km, with as little as 5 percent energy loss. This method is considered more economical than parallel transmission of electricity and hot water.

In summary, the potential for production of energy from geothermal resources in Douglas County is virtually unknown. The greatest temperatures are theoretically found in the unpopulated eastern portion of the County. Technology is available to transmit hot water over distance for electricity generation and low grade heating.

Low Head and Micro Hydro Power

Low head and "micro" hydro power generation are possible means of tapping energy from Douglas County's small streams on a small scale.

A theoretical low head hydroelectric study of Oregon's rivers and streams identifies only two Douglas County streams with generation potential.[14] 5 Each drainage basin was examined for potential without the need for reservoir storage on reaches (lengths) of rivers and streams with gross hydraulic heads ranging from 3 to 20 meters and capable of generating 200 kilowatts or greater.

Of the 114 reaches studied in the Umpqua Basin, similar to the boundaries of Douglas County only two streams (Calapooya Creek and Elk Creek) passed the

preliminary screening process. Screening process constraints included land use restrictions, i.e., wild and scenic rivers, parks, natural areas and/or archaeological sites. Displacement of existing major highways, railroads and energy or communication utilities were also considered. If relocation of any of these were required, then the reach was eliminated. Uniqueness of aquatic ecosystems was also included in the screening criteria--reaches with known habitats of salmonoids and/or endangered population of sturgeon were eliminated. Finally, screening criteria included distance from the nearest power lines and from the nearest towns.

Although this study is the first systematic, statewide study of low head generating potential in Oregon, it does not recognize unique opportunities for low head generation in Douglas County.

Micro hydro power production is best defined as generation of energy from small streams that have smaller volumes than that required for "low head" generation and therefore, produce less energy. Energy production from small scale developments are envisioned as supplemental-power for private use, although selling of surplus is a possibility. There are neither specific studies identifying potential sites in Douglas County nor specific requirements for micro hydro power but rules of thumb do exist. Hydro energy potential is a result of "head" and "flow" of a stream. Head is the distance (measured in feet) that water drops before it strikes a water turbine. Flow is the volume of water passing the water turbine site. The head and flow may vary inversely to each other with the same potential present a t the turbine. Although there is no specific minimum for head or flow, generally a head of at least three feet is required for power production and a head of ten feet or less is probably uneconomical to develop.

Municipal Waste

Energy potential from the reclamation of metallic and non-metallic materials from municipal waste generated in Douglas County is presently unknown. There is also a

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[14] Klingeman, A Resource Survey of River Energy and Low Head Hydro Power Potential in Oregon, 1979. OSU

lack of information concerning material content of the waste, methods for economically sorting materials and marketing the materials.

The Douglas County Public Works Department is presently conducting a study of Douglas County's municipal wastes and the feasibility of material reclamation. Preliminary data indicates that approximately 50 percent of the waste is composed of paper and eight to ten percent is metal. Until more information is available for analysis, no conclusion can be drawn concerning this potential local energy source.

Forest Waste

Wood is probably Douglas County's most plentiful renewable energy resource, but a competing wood chip market, collection costs and transportation costs inhibit the use of wood as a common fuel. At present, the market for wood chips is very competitive, driving the value of forest residue up. Chip prices increase when the demand for lumber products decreases, thereby decreasing the quantity of forest residue available for use as a fuel.

Collection and transportation costs of forest residue are high, but quantifiable data indicating the feasibility of extraction for power production is still in the writing. Two feasibility studies for the Willamette National Forest are currently being undertaken and should shed more light on this subject in the near future.

Although these factors inhibit power production from forest residue, wood is still the largest single source of industrial energy in Oregon, supplying half of the forest products and paper industries demand.

Gasification of wood is another method of extracting energy from forest residue. This gas can be transported by pipelines, similar to natural gas or used directly for unique applications. Research is now under way by the N. W. Natural Gas Company to study the feasibility of gasifying wood energy.

Wood can be gasified and directly used for unique application in stationary and vehicular internal combustion engines. In this process, gasification occurs within a few feet of the engine, thereby eliminating storage of the gas. This type of system is technically possible for vehicles, especially those used for heavy hauling.

The simplest form of energy extraction is by the consumption of cord wood, which is an increasingly more common practice in the Roseburg area, and throughout the state for that matter. It is, however, very difficult to estimate the amount of cord wood being consumed in the urban area. There are several reasons for this:

1. There is no single distributor of wood supply;
2. The suppliers service other communities besides Roseburg; and,
3. There is an incalculable amount of wood obtained by the user.

Although there are no statistics to reflect actual wood heat use in the Roseburg area, information from other cities in Western Oregon suggests that the sale of wood stoves has quadrupled in the past few years. It can be assumed that wood, in most cases, is a secondary residential heat source, backing up the primary sources of electricity, natural gas and oil.

The continued increase in wood use could result in air pollution problems due to inefficient wood stoves. Wood stoves must burn efficiently in order to limit particulate matter released into the atmosphere. Stricter controls may be required to ensure stove efficiency and safety. Proper installation and maintenance are necessary to avoid flue and chimney fires.

Wind

Quantifiable data for wind power specific to the Roseburg area is non-existent. General indicators, however, do show that power production from wind in some areas of Douglas County may be possible. These areas will most often be found where the topography concentrates air flow, projects air flow sharply upward or is on the leeward side of a smooth flat surface. Douglas County's many valleys, ridge tops, and its length

of coast line are logical wind turbine sites. Siting techniques include measuring the velocity of the wind by instruments, but more general wide spread information is obtained by noting the wind's effect on trees. Both are systematic methods useful for site specific and general data collection.

Power generated from wind is a function of wind speed, diameter of the rotor disc and air density. Wind speed is the main factor for siting a turbine since the available power varies with the cube of the wind speed. For example; a change in wind speed from 9 to 10 mph increases available power by 30 percent. Average annual wind speeds greater than 12 mph are needed for economical electricity generation. Wind speeds in Douglas County are greatest along the High Cascade ridge and along the coastline. As noted in the Natural Resources Element, Roseburg experiences an average hourly wind speed of five miles per hour, with winds of less than three miles per hour occurring from 30 percent of the time in July to 80 percent of the time in November.

Summary

The City of Roseburg can control or influence a variety of decisions affecting energy production and consumption through its various official activities and powers. Government agencies have in the past tended to focus their energy conservation efforts on programs which achieve short term energy savings. While programs such as requiring increased residential insulation and providing weatherization incentives do attain significant energy savings within a short time period, energy conservation efforts should not be limited to only short term programs. Significant energy savings can be achieved in the future by developing a program of energy conscious land use planning implemented at the local level. While significant energy savings may not be immediately apparent, such savings will increase as time goes on. Energy conscious land use planning can have a direct positive impact on future energy use.

The need for energy conscious land use planning in the Roseburg urban area becomes apparent when examining the forms of energy predominately used. Petroleum products, natural gas and electricity, all of which require large capital investments to be

produced and distributed, have been the forms of energy the urban area has become dependent upon. Uncertainty concerning availability and price, coupled with increasing demand from every sector makes conservation essential.

FINDINGS

1. At the present time there is insufficient information relating to patterns of energy use, conservation, and alternative energy sources in the Roseburg urban area to conduct a comprehensive energy study; however, such a comprehensive study could provide the City with the impetus to develop effective energy policy tailored to the specific characteristics and needs of the urban area.

2. The types of energy (energy forms) used in the Roseburg urban area are either produced locally or imported from outside the region. Imported energy forms include petroleum products, natural gas and electricity. Local energy forms include wood products, solar energy, and human activity (bicycle riding, walking,' etc.).

3. At the present time wood products are the most widely used local energy form; providing energy for residential space heating, industrial processing and on-site electrical generation.

4. Solar power is readily available in most parts of the Roseburg urban area for space and water heating; however, an on-site investigation of each location is needed to determine the amount of solar energy which is actually available for use.

5. At the present time, manufactured solar systems are not cost competitive with conventional energy forms, but this relationship should change due to the increasing cost of conventional energy forms.

6. Human activity such as walking and bicycle riding can reduce the demand for energy otherwise required for transportation.

7. At this present time, petroleum provides by far the largest portion of the urban area's total energy needs. If demand for petroleum continues to increase as it

has in recent years, there will probably be shortages of supply and increasing costs.

8. Natural gas is supplied to the Roseburg urban area by California Pacific National. Residential users consume 65 percent of the natural gas used in the urban area while commercial uses consume about 35 percent. There are no reported "industrial" consumers of natural gas in Roseburg.

9. Like petroleum, natural gas supplies and costs are subject to influences beyond the control of the local area and may Well experience changes which are not beneficial to urban area gas users.

10. Electricity is the most commonly used energy form in the Roseburg urban area for all purposes except transportation. Within the urbanized area electricity is supplied by Pacific Power & Light Company. Much of the rural area outside the urban area is served by Douglas Electric Cooperative.

11. The amount of electricity consumed in the urban area is increasing, primarily due to population growth. During the past 10 years PP&L has experienced an annual growth rate of 4.5 percent in its Roseburg District. The company projects the growth rate in electrical use to level off at around four percent in the near future.

12. More energy is consumed for transportation purposes than for any other use in the urban area. Virtually all of this energy comes from petroleum. The amount of energy consumed for transportation has been projected to significantly increase in the future as the estimated number of average weekday vehicle trips in the Roseburg urban area is expected to increase by about 70 percent over the next 20 years.

13. The curtailment of energy consumption in the transportation sector can be most effective at the local level by developing land use patterns Which encourage and facilitate the use of more energy efficient transportation modes such as public transit, bicycle riding and walking.

14. The urban area's economy is largely resource-based. Resource-based industries, such as the wood products industry, are typically large consumers of energy relative to the value added to the manufactured product and the number of persons employed. This factor will continue to keep the urban area heavily dependent on imported energy sources unless there is a shift to local renewable energy sources.

15. It is estimated that approximately 10 percent of the urban area's energy supply is consumed by commercial business. Office buildings consume a very small portion of the total, while service buildings such as hotels, medical facilities and cultural centers account for 43 percent and retail and wholesale buildings consume about 49 percent of the energy used in the commercial sector.

16. Like residential units, existing commercial buildings can be weatherized, while future buildings, in some instances, can be solar oriented. It has been estimated that as much as 43 percent energy savings is possible through conservation in the commercial sector.

17. The residential sector currently consumes about 20 percent of the energy used in the Roseburg urban area (not including energy used by the private automobile). The majority of a typical household's energy consumption is for space heating. In some homes space heating consumes as much as 80 percent of the household energy budget.

18. The single-most important factor determining the amount of energy required to heat a house is how well it is insulated. Older houses require significantly more energy for space heating than do newer houses because of the differences in the amount and type of insulation used.

19. Space heating in Roseburg area houses is provided by three basic energy sources: natural gas, electricity, and stove oil. In 1970 these three basic energy

forms were used in Roseburg homes in nearly equal proportion, but since 1970 there has been a dramatic shift away from oil.

20. As the price of imported electricity, natural gas and fuel oil continues to rise, residential users will have greater economic incentives to convert to alternate energy sources, improve the energy efficiency of their homes and in general consume less energy.

21. Historically low energy costs in the Northwest have provided a disincentive to construct energy efficient homes. Houses built prior to 1950 have little or no insulation while houses built between 1950 and 1975 usually have no more than two inches of insulation.

22. Houses constructed since 1975 have been built to insulation specifications contained in the Oregon State Building Code and on the average consume about 34 percent less energy for space heating than houses built prior to 1975. Improved insulation of the existing older housing stock can produce a significant reduction in energy consumption.

23. About 88 percent of Roseburg's existing housing stock was constructed prior to the adoption of stringent insulation standards in 1975. These older homes, if not properly insulated, could be wasting as much as twenty-two percent of the residential energy consumed in the urban area.

24. Solar orientation of buildings can contribute significantly to space heating needs. As the price of conventional fuels rises and solar technology develops and becomes more available, it is likely that a site with good solar utilization potential will be significantly more valuable than other sites.

25. Residential developments which utilize cluster development or zero lot line concepts tend to be more energy efficient than traditional subdivisions. In addition, they provide for smaller lot sizes while still maintaining open space.

26. Much energy is consumed in construction, use and maintenance of subdivision design and street patterns could accomplish some reduction in the present and future energy costs of residential development.

27. A passive solar heating system integrated into a dwelling in the Roseburg area can supply up to 50 percent of the dwelling's annual space heating requirements. Solar design is easily and economically integrated into new construction, but adaptation and conversion of existing dwellings is more difficult and often not economical at present fuel prices.

28. The potential for production of geothermal resources in Douglas County is virtually unknown. Areas of high geothermal energy are located along the High Cascade Range in eastern Douglas County. There are no known geothermal resources in the Roseburg urban area.

29. Low head and "micro" hydro power generation are possible means of tapping energy from Douglas County's streams on a small scale; however, findings from the limited studies thus far conducted suggest very little actual potential from this source.

30. Energy potential from the reclamation of municipal waste generated in the urban area is presently unknown.

31. Wood is probably Douglas County's most plentiful renewable energy resource, and is the largest single source of industrial energy in Oregon, supplying half of the forest products and paper industries' demand.

32. The simplest form of energy extraction from wood is through the burning of cord wood, which is an increasingly more common practice in the Roseburg area. It is very difficult to estimate the amount of cord wood being consumed, but it is estimated that the sale of wood burning stoves has quadrupled in the past few years.

33. The continued increase in wood use could result in air pollution problems due to inefficient wood stoves. Stricter controls may be required to ensure wood stove efficiency and safety.

34. Quantifiable data for wind power potential in the Roseburg area is non-existent; however, it is known that Roseburg has an average hourly wind speed of only three to five miles per hour. Average annual wind speeds greater than 12 miles per hour are needed for economical electricity generation.

ASSUMPTIONS

1. The cost of energy imported into the Roseburg urban area will continue to increase.

2. The amount of energy consumed in the urban area will continue to increase due to future population growth, but the per capita consumption of energy may decrease due to stronger conservation measures.

3. The resource-based industries found in the urban area will continue to be heavily dependent on increasing1y expensive imported energy unless there is a significant shift to local renewable energy sources.

4. Rising energy cost will be an incentive to improve the energy efficiency of the urban area's existing older housing stock and will encourage future houses to be built to higher insulation and weatherization standards than are presently in effect.

5. Building sites with good solar utilization potential will become increasingly in demand as conventional energy costs increase and the utilization of solar heating systems becomes more economical.

6. Locally generated electricity from such resources as hydro, geothermal and wind may not significantly contribute to the area's future electrical needs.

7. Significant energy savings can be achieved in the future by developing a program of energy conscious land use planning implemented at the local level.

GOALS, OBJECTIVES AND POLICY STATEMENTS FOR ENERGY CONSERVATION

Goal

To maximize the conservation and efficient utilization of both Renewable and non-renewable energy within the framework of sound l and use and economic principles.

Objectives

1. Encourage the minimization of energy consumption in determining the placement, density and design of all urban area land uses.

2. Encourage the utilization of renewable energy sources in order to conserve energy resources.

3. Support energy conservation efforts that are being undertaken by the public and private sectors.

4. Support efforts to increase public awareness of energy conservation issues and of methods to effectively utilize solar energy and other renewable energy supplies.

5. Promote the recovery and reuse of nonrenewable resources as an energy conservation measure.

6. Facilitate the use of solar energy and other decentralized energy sources.

Policies

1. The City of Roseburg shall undertake the development of a detailed urban area Energy Study with the active participation of local citizens in order to address local energy issues in greater depth than can be accomplished in the

Comprehensive Plan. The Energy Study, when adopted by the City, will be considered as part of the Comprehensive Plan and shall:

a. Establish the current demand and projected energy demand for the various sectors of the economy in the Roseburg urban area.

b. Inventory the current supply sources of energy for the urban area, include projected sources, renewable and nonrenewable, centralized and decentralized, and the price projections for each source.

c. Coordinate the development of a uniform reporting system to be used by the various energy suppliers in the urban area in order to generate an ongoing, accurate data base for energy planning.

d. Examine the potential economic impacts to urban area residents resulting from projected energy demand, supply and price.

e. Determine the impact of current land use policies and actions on energy use and reaffirm or point out needed adjustments to land use policies and regulations.

f. Research revisions to regulations which would have a positive effect on the use of renewable, decentralized energy sources, such as solar energy.

g. Research land use patterns which would facilitate the use of centralized, small-scale energy generation and storage in residential, commercial, industrial and mixed use applications.

2. The City shall incorporate into its land use ordinance provisions which encourage new development to utilize density and location, in balance with the requirements of other planning policies, in order to reduce the need to travel, increase access to transit, and permit building configurations which increase the efficiency of space heating in residences.

3. The City will encourage development that takes advantage of natural conditions such as microclimate, and use renewable energy supplies such as solar energy to minimize nonrenewable energy consumption.

4. As an energy conservation measure, the City will encourage the infilling of vacant land.

5. The City will encourage and support the development of a resource recovery program as an energy conservation measure.

6. The City will support efforts to develop industries that have a relatively high potential for utilizing renewable energy sources or waste heat.

7. When practical, the City will take the lead in demonstrating and implementing the cost-effective use of renewable and decentralized energy sources such as solar space and water heating systems, and the selection and use of energy efficient vehicles.

8. The City will continue to encourage cooperation and communication between citizens, utilities and local, state and federal agencies concerning energy-related issues.

The City will encourage efforts at the state level which promote energy conservation, such as in the statewide building code, utilize renewable sources of energy, and develop equitable energy allocation systems.

PARKS AND RECREATION ELEMENT

URBAN AREA

ROSEBURG

R

COMPREHENSIVE PLAN

PARKS ELEMENT

Introduction

Parks and recreation opportunities are essential components of the total urban environment. Parks provide a welcome visual contrast within urbanized areas while at the same time helping to supply necessary space requirements for leisure activities. In addition, recreational opportunities, whether active or passive, indoor or outdoor, help to provide relief from the everyday pressures and problems of urban life. The ability to provide parks and recreation opportunities of sufficient diversity to meet the needs of residents and visitors should be considered as one of the essential ingredients for enhancing the quality of life in the Roseburg urban area.

Within this element, parks and recreation have been separated into two main sections. The first is concerned with identifying park lands and their facilities, classifying them by intent and purpose, and assessing facility and acreage needs. The second section examines existing and proposed recreational opportunities in the urban area, focusing on programs, services and facilities provided by both public and private sectors of the community.

It should be noted that some of the recreation related topics identified in the State recreation goal, have been discussed in greater detail in other elements of the Comprehensive Plan and are not specifically dealt with in the Park and Recreation Element. These include: history, archaeology and natural science resources; mineral resources; tourism; and, open space and scenic landscapes. Also, it is important to understand that the Park and Recreation Element as presented, is not intended to provide definitive information regarding area recreation needs, nor is it within the scope of this element to establish a realistic framework for acquisition and development of parks and facilities. Rather, it is the intent of this element to stay within the range of currently available information.

This element is predicated on the assumption that the City will develop a Parks and Recreation Master Plan. Such a Master Plan will go far beyond the scope of this

generalized parks and recreation element, and will establish specific standards to more accurately assess the urban area's park and recreation needs.

The Master Plan will be based on community needs, providing guidelines for acquisition and development along with practical planning alternatives. The goals and policies contained in this element are of a general nature and will serve as the basis for specific policies to be contained in the Master Plan. It is anticipated that the Master Plan will provide a capital improvement program consistent with the financial resources of the community and provide specific area and facility recommendations to ensure that the park and recreation needs of the urban area are met, as well as guiding schematic design of specific projects.

The objectives of the proposed Master Plan will largely be accomplished through the use of inventories of current community programs and facilities, community meetings and forums, and a demand survey and computer analysis. The Master Plan will incorporate relevant state goals into its framework, goals and policies.

The City is presently exploring various means of securing funds to finance development of the Parks and Recreation Master Plan. It is anticipated that work on the Master Plan will begin during the 1981-82 fiscal year, shortly after adoption of the Comprehensive Plan.

History

The Roseburg Park Program officially began with the establishment of the Park and Playground Commission on September 18, 1944. However, it was not until November 1, 1948, that the Parks Department was officially organized with the hiring of a park foreman.

The first park lands to be acquired by the City were the Jackson Street and Commercial Avenue Parkways in 1910. These 35 foot wide landscaped areas comprise over 4.5 acres that run through the center of these two City rights-of-way. To date, the City of Roseburg has acquired 24 other designated park areas ranging in size from the

.10 acre Diamond Lake Boulevard wayside to the 162 acre Main Section of Stewart Park. The most recent addition to the park system was a 1.6 acre Army Reserve Addition to Stewart Park in 1977. Several park areas are yet to be developed and presently serve the City as unimproved open space.

It is noteworthy that, with few exceptions, the City has been fortunate to have acquired its parks through land donations, conveyance and tax default. Laurelwood Park is one such example. This 2.15 acre parcel, acquired by the City in 1936, was originally set aside for park purposes in 1920 when Laurelwood Addition was platted.

Stewart Park (Main Section) was formally acquired by the City in 1966 from the federal government, although it had been leased by the City for many years prior to this date. This 162 acre parcel was originally part of a 454 acre tract donated to the federal government by a multitude of local landowners, for use by the Veteran's Administration (V.A.) for construction of a hospital and support facilities. In 1954, the City sought to expand its existing park system by leasing approximately 124 acres of the V.A. property. This property was subsequently declared to be surplus by the federal government and was leased to the City and gradually developed as a park. Eventually on June 6, 1966, a bill introduced by Oregon Congressman Harris Ellsworth was signed into law giving this 162 acre parcel of V.A. land to the City of Roseburg for park purposes.

Other sections of Stewart Park that have been acquired by the City from the federal government include: Fir Grove in 1966 (23 acres); River Front in 1966 (24.43 acres); Naval Reserve Addition in 1971 (2.3 acres); and the Army Reserve Addition in 1977 (1.6 acres). The City acquired the Gaddis Section of Stewart Park from the Parks and Recreation Division of the Department of Transportation in 1980 (16.3 acres).

An important part of the history of Roseburg's park system can be attributed to the efforts of local clubs, organizations and individuals working in cooperation with the City to improve park areas. Some of the results of these efforts can be seen in the facilities at Stewart Park and include: The Pavilion, Legion Field, the tennis courts, Hoffman Center, the softball fields and the exercise trail.

Urban Area Park and Recreation Facilities

The Roseburg urban area is currently served by 27 developed park areas encompassing over 1,296 acres. Of these 27 parks, 18 are administered by the City with the remaining 9 falling under County jurisdiction. These parks are widely dispersed throughout the urban area.

In order to inventory developed park areas and their facilities in a manner that will provide information concerning existing deficiencies and projected future needs, the State Comprehensive Outdoor Recreation Plan (SCORP) Park Model Classification System was utilized. This system permits park areas to be grouped according to established criteria into either neighborhood parks, community parks, district parks or waysides.

Neighborhood Parks

Neighborhood parks are broadly defined by SCORP as being easily accessible recreation areas which are intended to serve neighborhood citizens and provide high density active or passive use. They include park areas such as tot lots, landscaped areas, plazas and squares, and will normally support a large number of organized activities. In small rural communities, parks which serve the entire population but do not otherwise meet the criteria for a community park, are classified as neighborhood parks. Neighborhood parks will generally be less than 15 acres in size and may contain facilities such as playground equipment, picnic areas, sports fields, multipurpose courts, passive areas and open spaces. A neighborhood park should be located in a community within a 15 minute walk, a ten minute bicycle ride, a five minute drive or by a transit system. In larger parks, undeveloped areas and landscape barriers can be used to separate passive and active areas. Neighborhood parks will generally be administered by a community agency, but the county, quasi-public, and private sectors may also administer these sites. Management decisions should give priority to public use, but consideration should also be given to the quality of the park environment. Ease of maintenance and public use should be of prime consideration in development plans.

Actual park plans should be designed individually according to the land base, needs, operation and maintenance capability, and the intended use.

There are 16 developed parks within the urban area that can be considered neighborhood parks by the standards identified above. All developed neighborhood parks in the Roseburg urban area are currently within the city limits, with the exception of Umpqua Park which is located adjacent to the County Fairgrounds. Table PR-4 outlines the facilities of these and other urban area parks.

Umpqua Park, located at the southern end of the Douglas County Fairgrounds, is administered by the Fairgrounds Board. This park helps to supply the needs of residents in the vicinity of the fairgrounds, and is also used heavily by visitors to the Fairgrounds. Umpqua Park is connected to the City of Roseburg by a bicycle trail paralleling Interstate Freeway I-5.

Along with the 16 developed neighborhood parks within the urban area, there are also 7 undeveloped parks that have been designated as neighborhood parks and slated for future development. Upon completion, these areas will contribute an additional 26 acres of park land.

Included among these undeveloped areas is South Knolls Park which is presently located outside the city limits. This property is owned by the City of Roseburg and contains over nine acres of undeveloped, wooded hillside which will eventually be improved with a trail system, picnic tables and other appurtenances. Access to this area is presently inadequate for vehicular traffic and will need to be improved as the park becomes developed.

Templin Beach, Deer Creek, and the Old Sewer Farm are three undeveloped neighborhood parks located along the South Umpqua River. These areas are located near the City's downtown business district and are close to older established neighborhoods. Because of their proximity, these parks, when developed, will provide excellent opportunities for residents to further enjoy local streams and rivers. Future plans for Templin Beach include landscaping while improvements to Deer Creek Park

will include turf, a picnic area and playground equipment. The City's bicycle trail system presently connects the Old Sewer Farm and Deer Creek Park to the Gaddis Section of Stewart Park.

Other developed and undeveloped parks have been outlined in the parks inventory located in this element.

Community Parks

Community parks are defined in the SCORP classification system as providing a variety of moderate density use recreation and/or cultural opportunities; centrally located for citizens of the community and immediate outlying areas. Located within the city limits, the park should be accessible by a transit system, if available, and within a 30 minute walk, a 20 minute bicycle ride or a 10 minute drive. This park will normally be between 15 and 100 acres in size. All those facilities found in a neighborhood park could also be located in a community park and in addition it might include: community center, arboretums, natural center, trails, art museum, historical museum, sports complexes, and undeveloped areas. Organized activities will usually be a large part of the park's usage.

Some portion of a community park may be left as undeveloped land. If the undeveloped land is left as a unit, it becomes a significant area by itself. The undeveloped land can be used for trails, nature study, or be reserved for future use. Passive and active areas should be adequately separated and parking areas should be located conveniently to the two areas. Public use is a major developmental consideration. Parks should be designed according to the land use base, needs, operations and maintenance capability and the intended use. Community parks are usually the responsibility of city government but, in some instances, county, quasi-public or privately administered areas may qualify as a community park. Public need is the primary factor in management of the park, but the park environment should reflect the need for diverse opportunities.

Stewart Park, the City's premier park facility, has been classified as a community park. Separated into four sections (Main, Fir Grove, River Front, and Gaddis), these park areas are located near the geographical center of the City and have a combined area of nearly 230 acres.

The Main Section of Stewart Park contains approximately 162 acres and serves as a focal point for organized outdoor activities for area residents. The park's two lighted softball fields and lighted Legion Baseball Field are used extensively by area teams during spring and summer months. Legion Field has a seating capacity for 2,000 people. There are 12 lighted tennis courts within the park that receive considerable use during much of the year.

Lying adjacent to the tennis courts is Hoffman Center which provides restrooms to nearby activity areas including the tennis courts, two soccer fields, two basketball courts and eight horseshoe pits. This facility also makes available by reservation, locker and shower facilities as well as a meeting room. The Roseburg Tennis Club currently has an agreement with the City to operate a concession stand out of this facility.

Roseburg's nine-hole Stewart Park Golf Course is also located in this section of Stewart Park. This course is supported by the Men's and Women's Golf Association who assist in conducting programs and tournaments throughout the year.

The northern section of the park has been developed into a 15 acre wildlife area. This naturally swampy area attracts birds, ducks, deer, beaver and many other animals. It is also a location of endangered wild flowers and a variety of local flora. It is annually visited through special tours by elementary school children.

Another attraction is the Avenue of State Trees. This six acre parcel of land in the heart of Stewart Park is specifically designed to display the state tree of each of the United States. Special walkways have been designed to allow visitors to view these trees.

Other park facilities include a large pavilion, picnic area and playground equipment in the southern section of the park.

The YMCA is also located in Stewart Park (Main Section). Although not considered a city park facility, the YMCA facilities are certainly an added feature benefiting the park. The proximity of the YMCA probably contributes considerably to the number of visitations by area residents to the park.

The Fir Grove Section of Stewart Park contains approximately 27 acres and is located southerly from the Main Section on the opposite side of the South Umpqua River. Among the facilities available is the Fir Grove Playground with equipment and a restroom specifically designed to accommodate handicapped children. The playground, however, is open for use by all children. Fir Grove has two baseball fields and a softball field that are used extensively by the high school, Babe Ruth League and area softball teams. During the fall, these fields are converted to three soccer fields that are used by AYSO teams.

The Fir Grove Section is also the location of the Cultural Arts Center. Operated by the Umpqua Valley Arts Association through an agreement with the City, this non-profit association holds classes and workshops that are open to all age groups and holds a monthly art gallery open to the public. The center is also available as a meeting place for other cultural groups.

Future improvement plans for this section include a pavilion and picnic area as well as parking lots and roads for the cultural arts center and the proposed community swimming pool. The proposed community swimming pool will be discussed in further detail under recreation opportunities.

The River Front Section of Stewart Park contains approximately 24.43 acres, and is located to the south of the Veteran's Administration Hospital grounds. This wooded portion of Stewart Park contains an exercise trail with various exercising stations located along the trail. The City's bicycle trail system runs through this section and connects Stewart Park Main Section with the Gaddis Section.

The Gaddis Section of Stewart Park contains approximately 16.3 acres. This park area stretches easterly along the South Umpqua River from Interstate Freeway 1-5 to the Old Sewer Farm park area near downtown Roseburg. The City's bicycle trail system winds through the park connecting River Front Section to the downtown business district. Facilities at the park are presently limited to picnic facilities, a nature trail, and restrooms. The river frontage of Gaddis has perhaps the best potential for access and development of any area in Stewart Park. Future improvements to Gaddis include a boat ramp and access road as well as a culvert under the adjacent railroad tracks for access to the bike trail.

It should be noted that the City's bicycle trail system winds through-out Stewart Park tying the various sections together and providing access to many areas of the City. This trail system is heavily used by cyclists and joggers alike.

Although there is no current information regarding usage of Stewart Park, in 1973 a Usage Survey was conducted by the Roseburg Parks and Recreation Department to determine the amount of use that City recreational areas and facilities received by people living outside the city limits.

With regard to specific facilities, a breakdown of the survey data shows that: approximately 33 percent of those people using the golf course lived outside the City; over 43 percent of the spectators for a baseball game at Legion Field were county residents; nearly 27 percent of the people using the park tennis courts were from outside the City; and of those persons participating in the city-wide softball league, over 38 percent were county residents.

This relatively large percentage of county residents using Stewart Park is due in part to the available facilities, its centralized location and accessibility, and its role as a focal point for organized recreation activities.

Although it cannot be documented, it is believed that since 1973 there has been little, if any, change in the percent of county residents using Stewart Park facilities and

that if any change has occurred, it has probably been an increase. This increase could be attributed to population growth outside the city limits as well as to the recent trend in fuel price increases which may tend to cause county residents in and near the Roseburg urban area to seek out more centrally located recreation opportunities such as those available in Stewart Park.

District Parks

District parks, as defined by SCORP, provide high density recreation opportunities in a relatively natural setting. District parks would normally be the responsibility of county or state government, but could be administered by federal, quasi-public, private or large urban area organizations. These parks are usually outside the city limits and serve the equivalent of a county population. The park should be about an hour bike ride or a 30 minute drive from a populous area with access available by foot, bridle or water trails whenever possible. District parks may be further from populous areas when population density is low.

The size of a district park is usually between 15 and 200 acres in size. Suggested facilities might include: picnicking areas, camping sites, sports fields, playgrounds, multi-purpose courts, swimming facilities, trails and undeveloped areas. Organized activities are not as common and district parks may have sections designated as natural or historical sub-units.

Low density use areas should be separated from high density uses and undeveloped lands should be kept as a unit, away from other areas. Parks should be designed individually according to the land base, needs, operations and maintenance capability, and the intended use.

There are five district parks that have been identified in and near the Roseburg urban area using the SCORP criteria. These areas include River Forks, John Amacher, Cooper Creek, Whistler's Bend and Berry Creek. Among these parks, only Amacher lies within the immediate urban area. The remaining four parks have been included since they are all within a 30 to 45 minute drive from the Roseburg urban area and

undoubtedly serve a great many of its residents and visitors in the capacity of district parks. It should be noted, however, that neither their facilities nor their acreages have been computed into the net needs for the urban area. This is because these parks do not specifically serve the Roseburg urban area and it is not possible at this time to compute their benefit to fulfilling the needs of Roseburg area residents separate from those of other central Douglas County residents.

John Amacher Park is located on the North Umpqua River in the Winchester area. This park encompasses 14 acres with facilities that include 40 camp sites, picnic areas, playground equipment and a boat launch lane. Future expansion of this area is limited primarily by topography (steep hillsides and North Umpqua River) and existing highways (1-5 and State Highway 99).

Located near 1-5, Amacher receives heavy usage from out-of-state travelers. The 1976 Usage Report published by the Douglas County Parks Department in March, 1977, includes a breakdown of where the people are from who use county campgrounds. This report shows that for Amacher Park, 36 percent of the visitors were from Oregon, 14 percent from Washington, 34 percent from California, and 16 percent from other states. In total, Amacher Park received 82,992 visitors in 1976.

River Forks Park is located approximately five miles west of the Roseburg urban area, at the confluence of the North Umpqua and South Umpqua Rivers. The park contains 76 acres with existing facilities that include picnic sites, playground equipment, a boat launch ramp, a softball field, a soccer field, horseshoe pits, a jogging track, and a picnic pavilion. There is also a beach area and a wading pool. Future improvement plans include a second softball field, an all-purpose court and two tennis courts.

The 1976 Usage Report indicated that 201,552 persons visited River Forks Park during that year. Information obtained from a 1979 field survey conducted by the Douglas County Parks Department, shows that 78 percent of all day use visitors surveyed traveled less than 25 miles to use River Forks Park. Of all day use visitors at River Forks Park, 78 percent are residents of Douglas County.

Located east of Sutherlin and approximately 10 miles from the Roseburg urban area, Cooper Creek Reservoir encompasses 175 total acres including both land and water surface acres. Approximately 18 acres of the total site have been intensively developed for recreational purposes. Facilities in this park include developed picnic areas, playground equipment, boat launch lanes, a beach area, and a hiking trail. Future expansion of this park is primarily limited by topography. Douglas County's Usage Report shows that Cooper Creek Reservoir received 167,622 visitors in 1976.

Whistier's Bend is located approximately 11 miles east of the Roseburg urban area on the North Umpqua River. This park contains approximately 175 acres with 24 available campsites. Facilities include developed picnic sites, playground equipment, and a boat launch lane. There are several additional facilities planned, although the county has not yet completed a master plan for this park. The 1976 Usage Report shows that of those persons using Whistler's Bend Campground, 70 percent were from Oregon, 4 percent from Washington, 20 percent from California and 6 percent from other states.

Berry Creek, located approximately 20 miles southwest of the Roseburg urban area, is one of the newest additions to the County's park system. The total area of the park encompasses.593 acres including land and water surface area. Approximately 30 acres of the total site will be intensively developed for recreational purposes. These improvements are scheduled for completion by the spring of 1980. Facilities will include picnic sites, parking lots and boat launch lanes.

Waysides

According to the criteria established by SCORP, the purpose of a wayside is to provide access to linear recreation areas or other recreation resources; to designate scenic viewpoints or historical sites along travel routes; or to provide rest areas for travelers on the state highways. Waysides will generally be under 5 acres in size and may contain facilities such as picnic areas, boat ramps, restrooms, trails, campsites and historic markers. Both service area and access are dependent upon the type of wayside and the associated facilities.

Waysides must provide access to an outdoor recreation resource; offer travelers a rest stop; or mark a point of interest. Areas that are for the use of travelers in a linear recreation area, but do not provide access to the park, are not considered waysides. Access areas to recreation resources should have sufficient parking and support facilities. The parking area should be visible either from the road or from the resource (lake, river) to reduce vandalism. Waysides should be developed according to the land base, needs, maintenance capability and the intended use.

Two waysides identified in the urban area inventory are Chris Hestnes Landing and the Fish Ladder at Winchester Dam.

Chris Hestnes Landing consists of a one acre parcel providing an access point to the North Umpqua River. Facilities include a picnic area, restrooms and a boat launch lane.

The Fish Ladder is located on the North Umpqua River at the Winchester Dam. A marker identifies this point of interest lying adjacent to State Highway 99 on the north side of the Winchester Bridge. There are a series of steps that lead down to the fish observation area from which visitors can view many of the fish species common to the North Umpqua River including migrating Salmon and Steelhead.

Use of Standards for Determining Area and Facility Needs

Recreation needs are generally defined as the difference between activity demand and available supply. In order to translate demand into a specific amount of supply, it is necessary to adopt standards. Standards usually represent the average amount of supply necessary to meet a given amount of demand. Projections of future park and recreation needs can be made by comparing the demand data against accepted standards. This will provide an indication of gross needs, which are then subtracted from the available supply in order to determine net park and recreation needs.

The total current supply of park acreage and selected facilities for the Roseburg urban area have been tabulated and compared against standards established in the Recreation Needs Bulletin of the Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP). Based on this comparison, while keeping the inherent limitations discussed below in mind, a preliminary projection of net needs for urban area park types and selected facilities was computed.

For the purposes of this element, standards can provide a useful function by serving as a yardstick against which the supply of recreation facilities or acreage can be evaluated for adequacy in meeting demand. However, standards are not without drawbacks and their limitations should be recognized. They should be used only as guidelines and not as policies which dictate either development or non-development of specific facilities.

Current levels of use, availability of sufficient funds, and the possibility of greater deficiency in another activity also have to be considered when determining the necessity for further park and recreation facilities. Human factors (population growth trends, economic conditions, etc.) and nonhuman factors (climate, soil conditions, terrain, etc.) affect any recreation project and both can complicate the strict application of standards to a specific area or facility.

Standards do not consider that the cost of maintaining facilities, once they have been developed, often greatly exceeds initial acquisition and development costs. If sufficient funds are not available for annual maintenance, then it does little good to supply projected needs.

Other problems associated with the use of standards are that they do not reflect the difference between urban and rural areas, nor do they account for area or facility distribution. Also, they do not reflect the physical resource and aesthetic carrying capacity of park areas.

Park Area Needs

Net area needs for neighborhood and community parks were projected for the years 1980, 1990, and 2000. This was accomplished by multiplying the projected population by the park standard (acres/1,000 people and then dividing this number by 1,000 to obtain gross acreage. The existing acreage for the park type was then subtracted from the gross acreage to obtain net needs.

Table PR-1 illustrates the projected acreage needs for each park type. The projected 1990 net needs assumes that the 1980 needs have been met. The projected net needs for the year 2000 assumes that both 1980 and 1990 needs have been supplied.

Based on these standards, there is an acreage deficiency for both neighborhood and community parks within the Roseburg urban area. The current supply of neighborhood parks is 95 acres below the projected 1980 need, while community parks are deficient by 24 acres. The gap between supply and demand is projected to increase for both of these park types unless additional land is provided.

It may be noted that a portion of the identified acreage needs for neighborhood parks can be supplied through the improvement of presently undeveloped park lands, although this will still leave a significant acreage deficiency (69 acres) for this park type.

While they are available on a limited basis throughout the year, urban area school grounds are making a significant contribution toward supplying the remainder of this park acreage shortage. The combined area of the various schools (elementary, junior high, high school) is approximately 143 acres. In addition, there is another 100 acres of school grounds at Umpqua Community College. A breakdown of these acreages by school is presented in Table PR-5.

When locating future neighborhood parks, consideration should be given to accessibility. Many residential neighborhoods are substantially isolated from existing

park areas due to man-made barriers (major arterials, freeway, rail lines, etc.) and natural barriers (hills, river, streams, etc.).

As stated previously, there has been no attempt to project net area needs for district parks. Sufficient data is not presently available to permit a valid assessment of urban area needs separate from the needs of residents in other sections of Central Douglas County who utilize these facilities. However, these parks are known to be heavily used by many Roseburg area residents and visitors and it would seem to be appropriate to include their total acreage under current available supply.

While wayside park areas have been inventoried, no attempt has been made to project net needs for this park type largely because the given population standards were not considered to be relevant for a planning area the size of Roseburg.

One factor which must be considered when examining the net needs of the various park types is that the standards do not account for the difference between rural and urban areas. Although the Roseburg urban area contains over 25,000 people, large land holdings, steep undeveloped hillsides and many large lot subdivisions all contribute to existing open space and help to keep the overall population density low. The standards used to identify park area needs make no allowance for population density and do not consider open space as a factor. Therefore, the net acreage needs for all park classifications will be exaggerated to some degree.

TABLE PR-1
URBAN AREA PROJECTED ACREAGE NEEDS

PARK CLASSIFICAITON	STATE STANDARDS	NO. OF EXISTING PARKS	APPROX. ACRES	PROJECTED NET NEEDS		
				1980	1990	2000
Neighborhood	5 acres per 1, 000	16	32	95	42	53
Community	10 acres per 1,000	4	230	24	83	106
District	15 acres per 1,000	5	1033	--	--	--

PROJECTED POPULATION

1980 - 25,435
1990 - 33,702
2000 - 44,329

Facility Needs

Park facility needs have been identified in a manner similar to acreage needs. Using population standards for selected City and County park facilities and projected urban area population figures, gross needs were determined for the years 1980, 1990, and 2000. Gross needs were then subtracted from the existing supply in order to obtain projected net needs.

Table PR-2 illustrates the selected City and County facilities, their existing supply and the state standards by which needs have been projected. Two softball fields at the Veteran's Administration Hospital have been included in this count since the V.A. makes them available for league play. Sufficient data was not available to determine demand for camp sites, picnic sites, non-pool swimming areas, playground equipment, boat launch lanes, and bicycle/jogging trails. The need for these facilities will be analyzed in detail in the Parks and Recreation Master Plan. It should be noted that facilities located in district parks outside the immediate urban area have not been included in the existing supply.

According to the standards used, there is currently a need for 6 ball fields, 5 all-purpose courts and 3 indoor swimming pools within the urban area. There is an adequate supply of tennis courts through the year 2000. One nine-hole golf course is needed to supply the projected 1980 demand. Many of these projected needs can be expected to be satisfied as existing and proposed park areas are further developed.

At the present time, public schools together with private facilities are helping to supply many of these identified needs for area residents. Table PR-3 combines public school facilities in the urban area, including Umpqua Community College, together with those of the City and-County. The YMCA swimming pool and V.A. Hospital softball fields have also been included in this facilities count. These figures may provide a more realistic picture of available recreation facilities and projected needs, even though the use of school, YMCA and V.A. Hospital facilities by the general public is somewhat restricted. A detailed breakdown of facilities at urban area public schools is contained in Table PR-5.

Both Tables PR-2 and PR-3 have been provided only on an informational basis to illustrate possible deficiencies in those facilities for which population standards were available. Because the standards employed were not created for the Roseburg urban area, no definite projection of facility needs can be determined at this time.

In summary, the SCORP standards should be used only for purposes of comparison and should not be taken as a definitive measure of the adequacy or inadequacy of park areas and facilities. As a general rule, when the discrepancy between supply and projected demand increases sharply, the more important it becomes to focus attention on means of providing additional facilities or park areas that will serve to close the gap.

TABLE PR-2
URBAN AREA
PROJECTED FACILITY NEEDS

FACILITIES	PROJECTED GROSS NEEDS			(-) EXISTING SUPPLY	(=) PROJECTED NET NEEDS		
	1980	1980-1990	1990-2000		1980	1980-1990	1990-2000
Camp Sites				90			
Picnic Sites							
Ball fields (baseball, football, soccer)	21	28	37	15	6	7	9
Tennis Courts	10	13	18	18	0	0	0
All-Purpose Courts	10	13	18	5	5	3	5
Swimming Pools	3	3	4	-	3	0	1
Golf Courses	1	1	2	1*	1*	0	1
Swimming Non-pool							
Playground Equipment							
Boat Lunch Lanes							
Bicycle/Jogging Trails				8.5 miles			

*nine-hole golf course

SCORP STANDARDS

Ball Fields	- 1/1,200 population
Tennis Courts	- 1/2,500 population
All-Purpose Courts	- 1/2,500 population
Swimming Pools	- 1/10,000 population
Golf Holes	- 18 holes/25,000 population

URBAN AREA
POPULATION PROJECTIONS

1980 - 25,435
1990 - 33,702
2000 - 44,329

TABLE PR-3
URBAN AREA PROJECTED FACILITY NEEDS
(City, County and Public School Facilities)

FACILITIES	PROJECTED GROSS NEEDS			(-) EXISTING SUPPLY	(=) PROJECTED NET NEEDS		
	1980	1980-1990	1990-2000		1980	1980-1990	1990-2000
Camp Sites				90			
Picnic Sites							
Ball fields (baseball, football, soccer)	21	28	37	50	0	0	9
Tennis Courts	10	13	18	26	0	0	0
All-Purpose Courts	10	13	18	21	0	0	
Swimming Pools	3	3	4	2	1	0	1
Golf Courses	1	1	2	1*	1*	0	1
Swimming Non-pool							
Playground Equipment							
Boat Lunch Lanes							
Bicycle/Jogging Trails				8.5 miles			

*nine-hole golf course

SCORP STANDARDS

Ball Fields	- 1/1,200 population
Tennis Courts	- 1/2,500 population
All-Purpose Courts	- 1/2,500 population
Swimming Pools	- 1/10,000 population
Golf Holes	- 18 holes/25,000 population

URBAN AREA
POPULATION PROJECTIONS

1980 - 25,435
1990 - 33,702
2000 - 44,329

In order to avoid the limitations inherent in the use of these standards, it will be necessary to develop a Master Plan for Roseburg urban area parks and recreation facilities that incorporates a methodology reflecting local demand characteristics. As mentioned previously in this element, the Master Plan will eliminate the need to rely on SCORP standards. The Master Plan will also provide a more detailed and in depth analysis of community needs and capabilities relating to park and recreation facilities than the Comprehensive Plan is able to address.

Issues Affecting Development of Parks and Facilities

Park and recreation facilities have played an important role in contributing to the quality of life in the Roseburg urban area, but their ability to continue in this role is being threatened.

The availability of funds for acquisition, development and maintenance of recreational facilities will be an important issue in Roseburg's future. Inflation, public attitudes toward taxes, and tenuous economic conditions have reduced the public's willingness to pay for park and recreation facilities, while at the same time increasing the demand for these facilities and services.

The problem of limited funding has created a dilemma for local government which is torn between the need to acquire new park land to meet future demands, and the need to develop existing park areas to meet current demands.

The ability of local government to acquire property for future park development prior to the land being subdivided for residential use has been severely restricted through a lack of funds for this purpose. With residential growth outpacing the acquisition of land for parks, many neighborhoods in the community have been left without nearby park facilities. This is particularly evident in more recently annexed areas of the City and in urbanized areas outside the city limits.

Complicating the funding issue is the need for local awareness of the long range costs of providing additional facilities or park acreage. The cost of operating and

maintaining park and recreation facilities will exceed the initial cost of acquisition and development. This factor must be considered before a decision can be made as to whether additional supply should be provided.

Besides cost, one of the main factors influencing the ability of an urban area to provide park areas is the availability of land suitable for park and recreation facilities. Often suitable lands must compete with other land use activities and needs in the urban area (farms, residential home sites, industrial and commercial development, etc.). Recreational uses need to be considered in the context of such potential competition. In any case, conflict with other nearby development should be avoided (for example: lighting, noise, and traffic in residential neighborhoods).

The availability of energy is also an issue gaining increasing importance to agencies concerned with planning for future recreation needs. The energy crisis of the early 1970's has clearly shown that many existing recreation sites are dependent upon the automobile to transport park users.

The 1975 SCORP Demand Bulletin, in comparing 1969 data with that collected in 1975, indicated a drastic reduction in distances traveled on recreational trips by one to four days. This trend would indicate that in the event of future energy shortages of no greater magnitude than that of 1973-1974, Oregonians will seek recreation closer to home during periods of available leisure time up to and including long weekends.

The potential for future energy shortages combined with rapidly increasing fuel costs suggests that cooperative inter-agency efforts will be necessary to develop alternative access routes (bike and foot trails, mass transit, etc.) and methods to improve the current level of recreation opportunities (diversity in urban parks, more parks near urban centers, etc.).

Roseburg has already taken steps in this direction. The City's transit system routes stop at or near several City parks and recreation facilities. The City's existing bicycle trail system passes through the various sections of Stewart Park and affords access from several residential areas to park facilities. Future extensions of this trail will

include access to other city parks and recreation sites. The City's bike trail system is discussed in further detail in the Transportation Element of this plan.

Recreation - Programs and Facilities

Within the Roseburg urban area there are numerous public and private programs and facilities designed to help satisfy the leisure time activities of community residents. This section of the Parks and Recreation Element identifies many of the available recreational opportunities offered to the public.

City

The City of Roseburg co-sponsors with School District No. 4, a six week summer athletic program for local school aged children. The personnel costs for this program are shared on an equal basis between the City and School District, and, the equipment is paid for through registration fees obtained from each participant. The various activities include pee wee baseball, tennis and basketball clinics, track and field meets, weightlifting, gymnastics, girls' softball and cheerleading.

During the summer of 1979, this program attracted a total of 1,236 participants made up of 759 boys and 477 girls. In addition, a four-night Pee Wee Baseball Jamboree at Legion Field drew 537 participants, a novice tennis tournament had 90 boys and girls competing and two softball tournaments attracted 180 girls. Total enrollment for 1979 increased by 110 children over 1978.

During the summer, the City also offers an eight week swim bus program. This program allows children and adults living within the City, to ride buses free of charge to the Umpqua Community College swimming pool. Operating Monday through Friday from 12 noon to 6 p.m., these rented buses make four to five trips daily through the City, stopping at various locations to pick up riders. Past usage patterns have shown that bus ridership has been affected by adverse weather conditions. This is probably attributed to the fact that the Umpqua Community College pool is an outdoor facility.

In addition to these programs, the Roseburg Parks and Recreation Department works cooperatively with a number of local groups; including the various softball groups, Roseburg Swim Club, men's and women's golf associations, tennis club, Roseburg Track Club, Umpqua Valley Horseshoe Club, and the Umpqua Valley Arts Association, in the use of City facilities and coordination of activities. These allied groups have been very cooperative and often help financially and with actual labor in developing and improving the City's facilities.

Two of the most active of these local groups are the various softball teams and the American Youth Soccer Organization (A.Y.S.O.). The City's softball fields have been in great demand over the past few years due to the tremendous popularity of league softball. Due to this heavy demand for available facilities, all City fields are currently being allocated through a special board with each league represented by one person and guided by the Parks and Recreation Director. During the 1980 season, there is estimated to be over 70 organized softball teams playing in Roseburg. With an average of 15 members to a team, participation is likely to exceed 1,000 persons.

The American Youth Soccer Organization (A.Y.S.O.) has also received active participation in recent years from youth in the Roseburg area. Boys and girls ages 7 to 15 use the City's five soccer fields in Stewart Park during the fall months, beginning the weekend after Labor Day and running for 11 weeks. In the 1979 season, there were 47 teams with an average of 11 to 15 members per team and a total participation of approximately 700 children.

Flegel Center, formerly known as the old armory building, has been developed by the City into a community activities facility. This building is used seven days a week by a variety of community groups, for a diverse number of activities (continuing education courses, league basketball, physical education classes, etc.). A usage fee is charged to reserve the Center's facilities which include several meeting rooms and a gymnasium.

County

While the County does not conduct an active recreation program, the Douglas County Fairgrounds is one of the most heavily used of all recreational facilities available to the public. The Fairgrounds Board administers this complex of buildings that are used by various community groups for their activities throughout the year. Some of the available buildings include the Floral Building, Community Building, Dormitory, and Douglas Hall. Other attractions to the fairgrounds include the Douglas County Museum, the grandstands with seating for up to 5,000 people, both dirt and paved racetracks, riding arenas and Umpqua Park. Douglas Hall also contains three indoor tennis courts. The most recent addition to the Fairground facilities has been the construction of 50 recreational vehicle hookups.

Schools

As previously mentioned, School District No. 4 participates in a summer athletic program for school aged children in which it shares the operational costs with the City of Roseburg.

In addition, the School Board has an established policy of permitting public usage of its various facilities. Each school coordinates the respective activities around the available time. There is generally a usage fee for adult programs while children's programs (cub scouts, campfire girls, etc.) are not normally charged.

Table PR-5 illustrates the various recreational facilities available at schools within the urban area. These facilities play an important role in supplementing City and County facilities. The many school grounds with their ball fields, playground equipment and indoor gymnasiums offer an alternative to persons who otherwise might not have city or county facilities nearby.

Umpqua Community College also provides a variety of recreational programs and facilities to area residents. In addition to the usual array of physical education and recreational type courses available for credit, many of its facilities are available to the

public on a rental basis, including the auditorium, Fine Arts Theater, gym, pool and track. The auditorium which seats 1,010 people, has been used for concerts, musicals, pageants, magic shows and other forms of entertainment. The college's outdoor pool is open for public use during the summer with lifeguards on duty. Other facilities available to the public on a limited basis include six tennis courts, a quarter-mile asphalt track, a baseball field, and a soccer field.

Proposed Central Douglas County Pool

Previously, it was mentioned that a community swimming pool has been proposed for a site near the cultural arts center in the Fir Grove Section of Stewart Park. This facility, which will be known as the Central Douglas County Aquatic Center, is expected to be constructed once specific financial issues have been resolved by the City of Roseburg, Douglas County and School District No.14. The Center will be managed jointly by these three agencies.

The facilities planned for the Aquatic Center include a main pool, a training pool, a therapeutic pool, dressing rooms and public viewing area. These facilities will be completely enclosed, although provision has been made to build a sun deck on the exterior of the pool for sunbathing during spring and summer months. The Design Committee for the Aquatics Center has recommended that the proposed pool provide for a variety of aquatic opportunities including competitive swimming and diving, recreational swimming, instructional swimming and handicapped swimming.

The need for this type of facility has been documented through both surveys and petitions conducted within the urban area. A 1974 survey of area residents concluded that out of 501 total responses, 82 percent felt a pool was needed, 69 percent felt swimming instructions should be provided in public schools and 66 percent indicated they would be willing to help finance and support the year to year operation of a pool through taxes. More recently, in 1979, a petition drive collected a total of 7,213 signatures of county residents in favor of a Central Douglas County pool. Of those persons signing the petition, 61 percent were residents of the greater Roseburg area.

Much time and effort has been devoted to the planning of this aquatic center in hope that such a facility will help to satisfy the needs of Central Douglas County residents. Local agencies responsible for this proposed facility should be encouraged to explore available means of resolving the remaining financial difficulties.

Churches

The contribution made by churches and parochial schools toward satisfying the recreational needs of the community cannot be overlooked. Besides the numerous programs and social gatherings that are held, many churches have also organized softball and/or basketball teams that compete in league play. A survey of area churches and their schools shows that most of them have a multi-purpose room and several have asphalt play areas, playground equipment and ball fields.

Veteran's Administration Hospital

Recreational facilities at the Veteran's Hospital include a nine-hole golf course, 2 softball fields, and 2 tennis courts. Although the use of these facilities by the general public is restricted, the softball fields are made available for league play.

Recreation Programs for Seniors

One of the most diverse programs directed toward satisfying the leisure time needs of seniors is offered by the Douglas County Senior Center. The Center has both facilities and programs designed to help fill the social and recreational needs of persons 55 years of age and older.

Some of the facilities available at the center include a crafts room, pool and shuffleboard tables, kitchen facilities and a lounge and television. Each month a calendar of events is printed to allow people to be aware of upcoming activities. Some of the activities offered in the past include monthly bus trips, bingo parties, dances, and a variety of classes sponsored by Umpqua Community College. The college classes are not limited to any specific age group.

Within the Roseburg urban area there are also a host of other social groups, organizations and associations specifically directed toward retired persons and seniors.

Private Programs and Facilities

The YMCA is one of the most popular recreation facilities in the area. It conducts a variety of programs that include summer day camps, ski trips, youth basketball league, arts and craft programs and various aquatic programs. The YMCA also offers a wide range of facilities that include handball/racquetball courts, exercising equipment, steam room, sauna, jacuzzi, indoor swimming pool and locker facilities.

The total number of annual visitations to the YMCA has increased dramatically over the last five years. In 1975, there were a total of 54,624 visitations, but by 1979, the total number of annual visitations was up to 163,123. This represents an increase of 198 percent for this five year period.

The Umpqua Health and Racquetball Club has experienced similar growth in its membership over the past few years. There are currently 750 members with approximately 220 members daily using the facilities. Facilities at the Club include an indoor swimming pool, seven racquetball/handball courts, exercise room, gymnasium, weight room, steam room, sauna, jacuzzi, jogging track and locker rooms.

The Roseburg Country Club provides a variety of recreational opportunities for its members that include an 18-hole golf course, an indoor swimming pool and four tennis courts. In addition to the various service organizations, clubs and associations discussed above, there are many others, including recreational opportunities. Although it is not possible to identify all such businesses and private organizations here, their importance cannot be overlooked. A partial listing of private recreation opportunities has been provided below. The activities of many of the urban area's service clubs and associations are also discussed in the Public Facilities and Services Element.

ROSEBURG URBAN AREA
TYPE AND NUMBER OF RECREATION OPPORTUNITIES

Archery Instruction	1	Karate Instruction	1
Art Instruction	2	Knitting Instruction	1
Aviation Schools	2	Movie Theaters	2 (1 indoor and 1 outdoor)
Billiard Parlors	2	Music Instruction	2
Bowling Alleys	2	RV Parks	4
Ceramic Instruction	3	Sewing Instruction	3
Dancing Instruction	3	Skating Rink (Roller)	1
Gymnastic Instruction	1	Skin Diving Instruction	1

It is evident that private associations and clubs are playing an increasing role in creating recreational opportunities for residents of the Roseburg urban area. In light of growing public resistance to government programs, it is reasonable to conclude that the private sector's role in this area will continue to increase in the future. While many of these organizations provide their own recreation facilities, others are heavily dependent upon the availability of public recreation facilities for their continued existence. Coordination of effort between public and private recreation-oriented organizations is essential to the survival of both. As a result of this interdependency, it will be necessary to inventory the various services provided and the types of uses made of public facilities by clubs, organizations and associations, as part of the Master Plan.

The lack of coordination among recreation providers and suppliers will significantly reduce the quantity and quality of recreational opportunities available to the area's citizens. Increasing costs and limited funds make it more necessary than ever to maximize the benefit of each recreation dollar spent. The Park and Recreation Policies of this Plan are intended to achieve that end.

State and Federal Programs

At present there are no existing or proposed Oregon recreation trails within the Roseburg urban area. Although a section of the North Umpqua River is currently being studied for designation as a scenic waterway, the study area is not within the urban area. No state or federal recreation or wilderness areas are within the Roseburg urban area, nor are any such designations currently being considered.

ROSEBURG URBAN AREA PARKS INVENTORY

AGENCY AND FACILITY CLASSIFICATION KEY

◯ = City Administered

△ = County Administered

N = Neighborhood
UN = Undeveloped Neighborhood
C = Community
D = District

W = Wayside

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Jackson and Commercial Street Parkways	1	◯ N	1910	4.6														Facilities include park benches and landscaping. Future plans include playground equipment.
Commercial Street Tennis Courts	2	◯ N	1934	.22				1										
Thompson Street Playground	3	◯ N	1936	.28	X	X			1									

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Laurelwood Park	4	N	1936	2.15	X	X												
Eagles Parks	5	N	1940	.22														
Beulah Park	6	N	1956	6.85	X	X		1										Includes 4.15 acre addition presently undeveloped. Future plans include a trail system and picnic area.
Brown Park	7	N	1959	.385	X	X												
Quintas Park	8	N	1959	.17	X													
Eastwood Park	9	N	1960	1.0	X	X												Adjacent to Eastwood Elementary School, leased from School District #4.
Parrot Creek Tot Lot	10	N	1964	.24	X	X			1									

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Riverside Park	11	◯ N	1966	3.25		X					X							Facilities include: flower gardens and fountain.
Diamond Lake Boulevard Wayside	12	◯ N	1970	.10														Facilities include bench seating and landscaping.
Joseph Micelli Park	13	◯ N	1973	6.20	X	X	1											Future plans include: restrooms and connection with bicycle trail
Willis Park	14	◯ N	.28		X													Facilities include bench seating
Douglas County Fairground Umpqua Park	15	△ N	6.0	X	X	3 indoor 2 outdoor 5												Douglas County Fairground Board administers complex. Future plans include 2 softball fields, 3 indoor tennis courts in Douglas Hall.

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Courthouse grounds	16	△ N	N/A	X	X													Facilities include park benches and walkways along Deer Creek
Old Sewer Farm	17	◯ UN	1921	6.0														
Templin Beach	18	◯ UN	1948	5.0											X		X	
South Knolls	19	◯ UN	1964	9.20														Located outside city limits. Future plan include a trail system, benches and picnic tables.
Deer Creek Park	20	◯ UN	1965	.55								X					X	Future plans include: parking area, picnic area, playground equipment, turf and landscaping.
Brown Park Addition	21	◯	1976	1.33														

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Keasey Street Park	22	◯ UN		4														Future plans include: parking area, picnic area, playground equipment, turf and landscaping.
Joseph Lane Park	23	◯ UN																Proposed neighborhood park adjacent to Joseph Lane Junior High School. Future plans include turf and landscaping, a picnic area and playground equipment.

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Stewart Park Main Section	24	C	1956	162.0	X	X	5	12	2		X	X	X					Facilities include 12 lighted tennis courts, 2 lighted softball fields, 1 lighted baseball field, 9-hole golf course, 2 soccer fields, 2 outdoor all-purpose courts, 8 horseshoe pits and wildlife area.
Stewart Park Gaddis Section	25	C	1958	16.30		X					X	X			X		X	Future plans include: boat ramp and access road and culvert under railroad tracks for access to bike trail.

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Stewart Park – Fir Grove Section (includes Army Reserve & Naval Reserve Additions)	26	◯ C	1966	23.03 2.30 1.60 26.93	X		6				X	X						Facilities include: community garden, cultural arts center. Future plans include: community swimming pool, picnic area and pavilion.
Stewart Park River Front Section	27	◯ C	1966	24.43								X						Facilities include an exercise and fitness trail.
John Amacher	28	△ D		14	X	X					X	X		40		1	X	

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
River Forks	29	△ D	76	X	X	1					X				X	1	X	Other facilities include: jogging track, softball field and wading pool. Future plans include a 2nd softball field, all-purpose court, and two tennis courts.
Cooper Creek Reservoir	30	△ D	175	X	X					X	X					8		
Whistler's Bend	31	△ D	175		X					X	X		24			1		Future plans for this area include facilities for group picnicking & additional hiking trails. A group camp area is being considered.

NAME OF FACILITY	Map Location Number	Agency and Facility Class	Year Established	Acres	Playground Equipment	Picnic Facilities	Ball Fields	Tennis Courts	All Purpose Courts (Basketball)	Swimming Pools	Restrooms	Trails (Bike/Jogging/ Walking/Hiking)	Golf Course	Campsites	Swimming (Non-Pool)	Boat Launch Lanes	Fishing (River and Stream)	Comments
Berry Creek	32	△ D	593		X					X	X					3		Acreage includes reservoir and site clearing areas.
Chris Hestnes Landing	33	△ W	1		X					X						1	X	
Fish Ladder	34	△ W		N/A														

TABLE PR-5

ROSEBURG URBAN AREA PUBLIC SCHOOLS

Recreational Facilities	Approximate Acreage	Basketball Courts Indoors	Asphalt Play Aras (Multi-Purpose Courts)	Playground Equipment	Multi-Purpose Rooms (Public Assembly Areas)	Athletic Track	Baseball/Softball Fields	Football/Soccer Fields
Roseburg Senior High School	20	2	0		2	1	2	2
Joseph Lane Junior High School	22	2	1		2	1	1	1
Freemont Junior High School	20	2	1		2	1	1	1
Eastwood Elementary	32	1	2	X	1		3	2
Fir Grove Elementary	6.9	1	3	X	1		4	1
Fullerton IV Elementary	9.7	1	3	X	1	1	3	1
Hucrest Elementary	11.7	2	3	X	1		2	1
Riverside Elementary	7	1	2	X	2	1	2	1
Winchester Elementary	10	2	0	X	1		2	1
Rose Elementary	3.5	1	1	X	1		2	1
Umpqua Community College	100	6			Available but not counted	1	1	1

FINDINGS

1. Increases in leisure time, income, transportation costs, energy costs and projected population growth indicate that there will continue to be a significant demand for a diversity of park and recreational opportunities in the Roseburg urban area.

2. In the City of Roseburg most park land has been acquired by conveyance or donation, principally from federal and state agencies. Today, most surplus government land has been disposed of, eliminating this important source for additional park land.

3. An important part of the history of Roseburg's park system can be attributed to the efforts of local clubs, organizations and individuals working in cooperation with the City to improve park areas and facilities. Continued cooperation among these various groups is essential to the maintenance and enhancement of the urban area's park and recreation facilities.

4. The Roseburg urban area is currently served by 27 developed park areas encompassing over 1,296 acres. Of these 27 parks, 18 are administered by the City with the remaining 9 falling under County jurisdiction.

5. Stewart Park is the City's primary recreational facility. The park is used heavily by city residents and non-residents alike. According to a 1973 Usage Survey, approximately 33 percent of those people using the golf course live outside the City; over 43 percent of the spectators for a baseball game at Legion Field were not city residents; nearly 27 percent of the people using the park tennis courts are from outside the City; and of those persons participating in the city-wide softball league, over 38 percent were not city residents.

6. Along with the 16 developed neighborhood parks within the urban area, there are also 7 undeveloped parks that have been designated as neighborhood parks and slated for future development. Upon completion, these areas will contribute an additional 26 acres of park land.

7. Private recreational facilities supplement and help meet the demand for a variety of recreational opportunities.

8. The Park and Recreation Element contains generalized projections of the urban areas future park and recreation facility needs. These projections are based on standards contained in the Oregon Statewide Comprehensive Outdoor Recreation Plan. While the statewide standards provide a useful comparison, they should not be used as the ultimate determinant of the adequacy of the park and recreation facilities provided in the Roseburg urban area. A determination of the adequacy must be based not only on total acres or facilities, but also on the values of the residents, the location of park and recreation facilities in relation to the residents each is intended to serve, the specific function each park is intended to serve and the role private facilities play in providing recreational opportunities.

9. According to SCORP standards, the current supply of neighborhood parks is 95 acres below the projected 1980 need, while community parks are deficient by 24 acres. The gap between supply and demand is projected to increase for both of these park types unless additional land is provided.

10. Many residential neighborhoods are substantially isolated from existing park areas due to man-made barriers (major arterials, freeway, rail lines, etc.) and natural barriers (hills, river, streams, etc.).

11. The ability of local government to acquire property for future park development prior to the land being subdivided for residential use has been severely restricted through a lack of funds or method of acquisition for this purpose. With residential growth outpacing the acquisition of land for parks, many neighborhoods in the community have been left without nearby park facilities.

12. Providing adequate park and recreation facilities is made more difficult by the lack of a detailed urban area Parks and Recreation Master Plan that incorporates a methodology reflecting demand characteristics of this local area.

ASSUMPTIONS

1. The demand for recreation-oriented facilities and services in the urban area will increase at a faster rate than population growth.

2. Increased demand on limited facilities., inflated development and maintenance costs, and an increasing reluctance by the tax paying public to finance new facilities, will impair the City's ability to adequately meet future park and recreation needs.

3. Public preference or demand for certain kinds of recreation services and facilities may change, leaving some under-used and others over-used, illustrating the need for flexibility in park and recreation planning.

4. Coordination and cooperation between local government and other recreation-oriented groups will become increasingly important to the efficient and cost-effective provision of recreation opportunities in the urban area.

5. Acquisition of additional park land will become increasingly difficult.

GOALS, OBJECTIVES, AND POLICY- STATEMENTS FOR PARKS AND RECREATION

Goal

To provide a timely, orderly and efficient arrangement of park and recreation facilities and services which will satisfy the diverse needs of urban area residents and visitors.

Objectives

1. Develop local standards, measures and implementation techniques to determine the level and type of local park and recreation facilities necessary to serve the needs of urban area residents.

2. Continue to encourage cooperation and coordination between the city and other governmental agencies regarding the planning, acquisition and development of parks and recreation facilities within the urban area.

3. Develop park sites and recreation facilities in a manner best suited to serve the diverse-interests and needs of the urban area's population.

4. Close the gap between the current supply of park and recreation facilities and the projected needs.

5. Encourage opportunities for the development of private recreational facilities.

6. Provide for the special recreational needs of the elderly and the handicapped.

7. Provide alternative transportation modes, including mass transit and bicycle trails, to area parks and recreation facilities wherever possible.

8. Provide the City with alternative means of financing acquisition, development, and maintenance of future parks and recreation facilities.

9. Encourage private donations for the development of park and recreation facilities, services and programs.

Policies

1. The City shall establish guidelines to ensure a means of acquiring needed park lands.

2. The City, in coordination with the Douglas County Parks Department, shall formulate, adopt and implement a Park and Recreation Master Plan which incorporates a methodology reflecting demand characteristics of the Roseburg urban area. The Park and Recreation Master Plan will include:

   a. The development of a complete inventory of park and recreation facilities and current usage of these facilities; the development of local standards for use by the City in determining the type and level of parks and facilities that are needed; the development of demand effectiveness measurements; and the development of capital improvements programming and other implementation strategies.

   b. Indication of how much land is needed for each type of park (district, community, neighborhood, etc.); and indicate what types of activities should be provided in each park (e.g.,, active recreational opportunities such as ball fields, tennis courts and playgrounds versus passive recreational opportunities such as hiking trails).

   c. Indication of how the resources of other local organizations and agencies can be coordinated and maximized in order for each to provide the level and type of recreational opportunities for which it is best suited.

   d. Indication of areas where the advance purchase of park land should occur in anticipation of future demand.

3. The City shall continue to encourage and facilitate cooperation and coordination with other appropriate agencies regarding the planning, acquisition, development and use of parks and recreation facilities.

4. The development of park and recreation facilities shall optimize existing and planned transportation facilities and services and shall allow for choice in using alternative transportation modes.

5. The City shall take an active role in promoting both the public and private recreation industry in the Roseburg urban area.

6. The development of park and recreation facilities shall consider the carrying capacity of the land, air, and water resources of the site. Park and recreation development shall not exceed the carrying capacity of such resources.

7. The City shall evaluate existing park and recreation facilities for possible modification to accommodate the special needs of handicapped persons and senior citizens. Future parks and recreation facilities shall be designed to accommodate the special needs of these individuals.

HISTORIC PRESERVIATION ELEMENT___

URBAN AREA

ROSEBURG

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COMPREHENSIVE PLAN

HISTORIC PRESERVATION ELEMENT

Introduction

An urban area can realize great pride and enjoyment in its cultural resources when they are properly maintained and developed. Historic structures provide a diversity of architectural styles within our visual environment that may be enjoyed by residents and visitors alike. The preservation of historical structures also provides area residents with a tangible connection to their past. This link with history provides a sense of place, permanence, continuity, and perspective to our lives. But, unless a conscious and deliberate effort is made to protect these valuable resources, this important link with the past may be lost forever.

The Historic Preservation Element seeks in part, to foster greater public awareness and appreciation for the heritage of the Roseburg urban area. In addition, it attempts to ensure that sites and structures having local, state or national historical significance, will be identified and measures taken to preserve their existence.

A brief historical outline of the Roseburg urban area has already been provided in the Population Element. Therefore, the main thrust of historical information found within this element, will be associated with the background of the particular sites and structures contained in the inventory.

Historic Preservation - Background

In 1966, the U.S. Congress passed the National Historic Preservation Act authorizing the Secretary of the Interior to expand and maintain a National Register of districts, sites, buildings, structures and objects significant in American history, architecture, archaeology and culture. it lists those national, state and local landmarks which constitute the significant evidences of our national heritage. The National Register encourages appropriate action, public and private, to preserve this heritage and it is the legal instrument which ensures that registered properties threatened by federal or federally assisted undertakings will be subject to review and comment in accordance with the procedures prescribed by the Act. In addition, listing

on the Register makes private property owners eligible for federal grants-in-aid for historic preservation through state programs and makes owners who rehabilitate certified historic properties eligible for federal tax benefits.

Prior to the 1966 Act, the National Park Service, under the authority of the Historic Sites Act of 1935, had undertaken a program of identifying districts, sites, buildings, structures and objects of national historical significance which are not part of the National Park System and had accorded them eligibility for recognition as "National Historic Landmarks."

Section 101 of the 1966 Act authorizes an expanded list, including these properties and the historical units of the National Park System, to be known as the National Register.

The National Historic Preservation Act also inaugurated a funding program of matching grants to states for survey and planning activities and for acquisition and development projects related to National Register properties and to the National Trust for Historic Preservation for preservation projects, Title 11 established the Advisory Council on Historic Preservation to review federal actions related to preservation and to advise the President and Congress on such matters.

To administer the historic preservation responsibilities of the Secretary of the Interior, the Department created the Office of Archaeology and Historic Preservation (OAHP) within the National Park Service in 1967. The Governor of each state was asked to appoint an official to work with OAHP. Thus, the Oregon State Historic Preservation Office was created, as a special program unit of the Parks and Recreation Branch. This office administers:

a) a statewide survey and inventory of historic properties.

b) processing of nominations to the National Register of Historic Places.

c) an environmental review process to ensure that properties either listed in, or eligible for, inclusion in the National Register are not thoughtlessly or needlessly destroyed by federally funded or federally sponsored projects.

d) tax incentives for the development of properties listed in the National Register. Under Oregon Law, the assessed value may be frozen for 15 years, enabling owners to make Lax-free improvements. Under federal

income tax law, the cost of improvements may be amortized over five years or the property may be depreciated on an accelerated basis.

There are virtually no disadvantages to private property owners who have their property placed on the Register. The property is not encumbered and the owner can remodel, alter or tear the building down at his discretion. The Register does not require the owner to improve or restore the structure nor does it grant a right of access to the general public.

National Register Criteria

Criteria have been established by the Secretary of the Interior for evaluating the eligibility of properties nominated to the National Register. These criteria are included in the Historic Preservation Element in order to provide an idea of the kinds of sites and structures that may be eligible for nomination to the National Register. National Register criteria have been developed for a broad range of historic resources that exhibit significance in American history, architecture, archaeology and culture.

Criteria of Evaluation

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design. setting, materials, workmanship, feeling, and association, and:

(A) that are associated with events that have made a significant contribution to the broad patterns of our history; or

(B) that are associated with the lives of persons significant in our past; or

(C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(D) that have yielded, or may be likely to yield, information important in prehistory. or history.

Criteria Considerations

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past fifty years shall not be considered eligible for the National Register. However, such properties wi.11 qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

(A) a religious property deriving primary significance from architectural or artistic distinction or historical importance; or

(B) a building or structure removed from its original location but which is significant primarily for architectural value. or which is the surviving structure most importantly associated with a historic person or event; or

(C) a birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life; or

(D) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

(E) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

(F) a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or

(G) a property achieving significance within the past fifty years if it is of exceptional importance.

The Roseburg urban area presently has two structures listed on the National Register of Historic Sites and Places: the Creed Floed House (Joseph Lane House) located at 544 S.E. Douglas Avenue; and the Judge William R. Willis House, located at 744 S.E. Rose Street. The historical significance of these structures has already been determined by virtue of their inclusion on the National Register. These structures are more specifically described in Appendix A.

Obviously, not all of an urban area's historical resources will be able to satisfy the degree of significance required for nomination to the National Register. Still, they may have attributes that make them worthy of inventory, recognition and protection. Creation of a local register would enable such places within the Roseburg urban area to be noted for their local or regional significance. In order to standardize the selection of significant sites and structures for inclusion in a local register, a basic set of criteria would be necessary. The checklist of criteria provided below, when used in conjunction with established National Register Standards can provide a useful too] for determining whether or not a property should be included on Such a local register.

Historic Considerations

Is the structure associated with the life or activities of a major historic person (more than the "slept here" type of association)?

Is it associated with a major group or organization in the history of the nation, state, or community (including significant ethnic groups)?

Is it associated with a major historic event (whether cultural, economic, military, social, or political)?

Is the building associated with a major recurring event in the history of the community (such as an annual celebration)?

Is it associated with a past or continuing institution which has contributed substantially to the life of the urban area?

Architectural Considerations

Is the structure one of few of its age remaining in the urban area?

Is it a unique example in the urban area of a particular architectural style or period?

Is it one of a few remaining examples in the urban area of a particular architectural style or period?

Is it one of many good examples in the urban area of a particular architectural style or period?

Is the building the work of a nationally famous architect?

Is it a notable work of a major local architect or master builder?

Is it an architectural curiosity or picturesque work of particular artistic merit?

Does it evidence original materials and/or workmanship which can be valued in themselves?

Has the integrity of the original design been retained or has it been altered?

Setting Considerations

Is the structure generally visible to the public?

Is it, or could it be, an important element in the character of the urban area?

Is it, or could it be, an important element in the character of the neighborhood (either alone or in conjunction with similar structures in the vicinity)?

Does it contribute to the architectural continuity of the street?

Is the building on its original site?

Is its present setting (,yards, trees, fences, walls, paving treatment, outbuildings, and so forth) appropriate?

Are the structure and site subject to the encroachment of detrimental influences?

Use Considerations

Is the building threatened with demolition by public or private action?

Can it be retained in its original or its present use?

Does it have sufficient educational value to warrant consideration of museum use?

Is it adaptable to productive reuse?

Are the building and site accessible, served by utilities, capable of providing parking space, covered by fire and police protection, and so forth, so that they can feasibly be adapted to contemporary use?

Can the structure be adapted to a new use without harm to those architectural elements which contribute to its significance?

Cost Considerations

Is preservation or restoration economically feasible?

Is continued maintenance after restoration economically feasible?

FACTORS TO BE EVALUATED IN POTENTIAL HISTORIC AND CULTURAL CONSERVATION AREAS

Is the area capable of preservation, or has it deteriorated too far?

What are the area's strengths and weaknesses?

Considering the total rather than the partial view, does the area as a whole have unique or distinctive characteristics that cannot be attributed solely to a collection of buildings of the same or related periods?

Does the area have a continuity of architectural resources that are well related to each other? Is this a concentrated pattern of important structures? Or are the principal architectural features loosely clustered or relatively isolated? Does the area "read" as a whole, or is it made up of related but different subareas of differing character?

Can the visual relationships among the important features be enhanced? Can the traditional atmosphere of the area be retained though at the same time new or improved facilities are needed? What are the opportunities for successfully blending contemporary designs with the existing image?

Is there visual harmony in the character of public ways (street and sidewalk materials, street furniture, landscaping, and so on)? Is the treatment of public ways consistent with the architectural character of the area?

Are there opportunities to improve the public view of the streetscape? Can views and vistas be improved?

Are uses and intensities of uses compatible? Can any disrupting influences be removed? Are circulation and community facilities adequate to serve a changing neighborhood?

What modifications in standards are required, if any, to enhance the livability of the area? Today's suburban space values should not be used as the sole basis for judgment. It is important to understand the particular developmental standards in effect during each area's construction. The rules that might apply to a federal period neighborhood will not necessarily apply to a Victorian neighborhood, though both areas may warrant historic and cultural conservation.

Inventory

The inventory of historic sites and structures within the Roseburg urban area includes those properties inventoried by the Oregon State Historic Preservation Office and those nominated to the National Register of Historic Places. The City of Roseburg should conduct a more comprehensive and evaluated survey of these historic sites and structures within the urban area. Examples of the various avenues available to achieve this end include but are not limited to: applications for grant monies that would provide funding for survey work; encouraging interested citizens, organizations and historic preservation societies to support the inventory effort by submitting nominations and utilizing the records of the county museum and library.

This inventory would provide policy makers with a listing of historical sites and structures to be reviewed for possible inclusion in a local register. One accepted means by which a property owner could have his or her property placed on a local or national register would be to make a formal application to a Historic Resource Review Committee. This committee would review the application and determine whether or not the property is a significant historic resource and make a recommendation to the City Planning Commission.

Protection of Significant Historic Resources

At present, the Roseburg urban area has no means of safeguarding its historical sites and structures from destruction or alteration. A Historic Preservation Ordinance is one means available that would provide protection for historical resources. Such an ordinance may be based on the National Institute of Municipal Law Officers model

historic preservation ordinance. Basic provisions contained within this proposed ordinance might include but not be limited to:

1) Authorization to create a Historic Resources Review Committee and specific details as to the makeup, functions and duties of this committee.
2) Establishing controls and regulations under which designated historical sites and structures are subject. (e.g. regulations regarding the issuance of permits required prior to exterior alteration or demolition, regulation of uses of a designated historical site or structure, standards regarding the issuing of permits for demolition and building condemnation, etc.).
3) If applicable, designation of areas as Historic Districts (allowing for a Historic District Advisory Council of area residents).
4) Development of standards for exterior remodeling of existing structures or construction of potentially incompatible structures in proximity to a designated historic resource.

Another means of providing further protection to designated historic resources, involves the creation of a Historic Preservation overlay zone. The purpose of this zone would be to permit, after review and subject to minimum standards and conditions, the conditional use of historically or architecturally significant buildings for uses not otherwise permitted in certain zones. This zoning designation will serve to identify historic sites and structures on the official zoning map and help to locate them for future reference. Those sites and structures covered by the Historic Preservation overlay zone will also be subject to the provisions of the Historic Preservation Ordinance. Hopefully such action will help to preserve existing structures where preservation is not possible or practicable with uses now permitted in certain zones.

Because the manner in which the historical resources inventory will be carried out is indefinite at this time, an exact date for completion of the inventory is not available. It is believed that the historic resources inventory should take between one and two years to finish. This does not take into consideration periodic updates following completion.

Historic Resources Review-Committee

The Roseburg urban area currently has no mechanism whereby potential sites and structures of historical significance may be reviewed for inclusion on the proposed Roseburg urban area register. One of the most common and effective methods employed by other cities and counties involves the creation of a commission or committee that is responsible for reviewing nominations to a local listing of significant historic sites and structures.

The City of Roseburg could form its own Historic Resource Review Committee or as an alternative, work together with Douglas County in the creation of a joint City-County committee. The advantages of utilizing a joint committee would include the avoidance of duplication of efforts that would occur in the urban area lying outside the Roseburg City limits, as well as encouraging greater coordination and uniformity in identifying historical sites and structures of significance. The primary function of this committee would be to serve in an advisory capacity, providing recommendations to local governing bodies and their agents on all matters concerning sites and structures determined to exhibit historical significance.

More specifically, the duties and responsibilities of the Historic Resource Review Committee might include but not be limited to:

1. Review applications of nominated historic resources for the purpose of determining historical significance and serve in an advisory capacity to the Roseburg Planning Commission, the City Council, and other public or private agencies on all matters dealing with sites and structures determined to have historical significance.
2. Advise governing bodies concerning permits for demolition or alteration of registered historical or archaeological sites.
3. Recommend criteria and standards for historic resource identification.
4. Initiate and support programs and projects that will help to preserve historic resources and make citizens and visitors to the area aware of the history and heritage of Roseburg.

5. Recommend removal from the Roseburg Urban Area Register, historic sites and structures found to be no longer worthy of such designation.
6. Coordinate historical resource protection and inventory efforts with county, state and federal governments and other agencies.
7. Work to seek the donation of funds, easements, buildings, area, etc., for the protection of historic sites and structures, from both public and private sources.
8. Be responsible for monitoring state and federal historic preservation programs and funding sources which are available to owners of historically significant resources.

Archaeological Sites

Archaeological sites represent a valuable resource to those engaged in the legitimate study of the ancient peoples who once inhabited the area. Unfortunately, many such sites, once discovered, have been disturbed by amateurs and "weekend pot-hunters" to such a degree that their historical and scientific value are marginal. In other cases, primarily as the result of construction projects., significant archaeological sites have been completely destroyed before any analysis of the site could occur.

Each archaeological site is unique. The accidental or deliberate destruction of these resources removes forever the opportunity to add to our knowledge of the people who came before us. In order to protect archaeological resources, both federal and state laws have been enacted, some dating back to 1906. Although the State of Oregon has had laws protecting archaeological sites since 1942, the principal statutes in effect today were enacted by the 1977 State Legislature. ORS 273-705 establishes conditions for the excavation or removal of archaeological or historical materials from state lands. ORS 97-740 provides for the protection of native Indian cairns and graves and prohibits the willful disturbance of Indian graves or the possession of artifacts from Indian graves. Statewide Planning Goal No. 5 (Open Spaces, Scenic and Historic Areas, and Natural Resources) requires that local comprehensive plans provide for the protection of identified historical and archaeological sites, structures and objects.

As discussed in the historic section of the Population Element, artifacts found in the Roseburg area suggest the presence of inhabitants as far back as 12,000 years. Although there has been relatively little archaeological research conducted in the Roseburg area, the few sites which have been located are all associated with the South Umpqua River. One village site has been covered by urban development, while other known sites remain relatively undisturbed. As the urban area continues to grow, construction projects will likely unearth additional archaeological sites currently unrecorded.

Both state and federal law require pre-construction cultural resource surveys of sites to be impacted by publicly funded projects. To date, two such surveys have been conducted in the urban area; one for the new Stewart Park Bridge and the other in connection with preliminary analysis of a regional sewage treatment facility. The findings of these two surveys are on file with the Roseburg Planning Department.

At the present time there are no laws requiring pre-construction archaeological surveys for privately funded projects, nor is there any legal requirement that archaeological sites and objects found on private property be reported. However, surveys thus far conducted indicate certain areas are potentially significant and valuable in an archaeological sense. Those who uncover artifacts and archaeological sites should be encouraged to voluntarily report their discoveries to the appropriate authorities in order for the find to be recorded, and if appropriate, studied. The appropriate local] authority to contact is Mr. George Addill of the Douglas County Museum in Roseburg.

APPENDIX A

URBAN AREA PROPERTIES IN THE NATIONAL REGISTER OF HISTORIC PLACES

Creed Floed House (Joseph Lane House)
544 S.E. Douglas Avenue, Roseburg, Oregon
Entered in the National Register - 12/31/74

This structure, commonly known as the Lane House, was occupied by Joseph Lane's son-in-law, Creed Floed. Constructed in 1853-54, the house has a two-story piazza and its architecture is in the greek revival style. A bay window added before 1880 and other modern revisions have altered the home somewhat, but it remains one of the rapidly diminishing number of structures dating from Oregon's territorial days.

Joseph Lane was born in 1801 in North Carolina. He had an eventful military and political career, serving in both houses of the state legislature in Indiana and earning his military rank in the Mexican War. Appointed by President James K. Polk as governor of the Oregon territory, he arrived in Oregon City in 1849. In 1853 he settled in the Umpqua Valley and was a delegate to the U.S. Congress until 1859, when Oregon achieved statehood. Over the next two years he was a state senator and a candidate for the vice-presidency of the United States. Following the death of his wife, Lane moved to Roseburg and built a cottage on the northwest corner of the block now occupied by the Douglas County Farm Bureau, opposite the Chamber of Commerce parking lot. He took his meals at his daughter's home until his death in 188).

The structure was given to the Douglas County Historical Society by Mrs. Catherine Bain, a descendent of Joseph Lane and was restored to its present condition in 1961.

Judge William R. Willis House
744 S.E. Rose Street, Roseburg, Oregon
Entered in the National Register - 6/5/75

Built in 1874 by Judge William R. Willis, this structure originally stood at the corner of S.E. Cass Street and S.E. Rose Street. The house features a curved interior staircase, ornate millwork on door casings and window frames, brackets highlighting decorated frieze and box corners and a bay window protruding from the south side. General W. T. Sherman and President and Mrs. Rutherford Hayes are purported to have been guests at the house, which served for many years as the showplace of Roseburg.

William R. Willis was Douglas County Judge from 1860 to 1864. He served many years on the Roseburg City Council and was Mayor of the City of Roseburg for three terms.

The house was used as the Roseburg Public Library beginning in 1924 and continued to do so for a period of over 30 years, until Douglas County established its library in the Court House. Following the explosion of 1959, the Willis home became the location for the chief administrative offices for the City of Roseburg and served as its City Hall for almost 15 years.

ROSEBURE URBAN AREA
HISTORIC SITES AND BUILDINGS
STATE INVENTORY

NAME:
(Common) Alexander Bridge Piers
(Historic) Alexander (J.M. & J.C.) Bridge

ADDRESS OR LOCATION: West of 1750 S.E. Mill, Roseburg, Oregon

PRESENT OWNER:
ORIGINAL USE: Bridge Support Piers

DATE OF CONSTRUCTION: 1909

BACKGROUND: James Christian Alexander and J.W. Alexander constructed this bridge in 1909 across the South Umpqua River in south Roseburg to provide access to property which they owned through their Umpqua Land and Water Company. This bridge of four spans collapsed in the 1950's. Remaining are concrete piers on both sides of the river. The piers on the east bank yet have in place wooden beams and a shingled gable roof which covered the timbers. The design of the pier indicates that this bridge may have been a suspension type.

NAME:
(Common) Booth Bridge
(Historic) (same)

ADDRESS OR LOCATION: Winchester, Oregon

PRESENT OWNER: State of Oregon

ORIGINAL USE: Bridge

DATE OF CONSTRUCTION: 1923-24

BACKGROUND: The Booth Bridge at Winchester, Oregon, is a major concrete span crossing the North Umpqua River. It was constructed in 1923-24 to improve travel on Highway 99, the principal thoroughfare between Oregon and California. The bridge served as a major route of travel for the next forty years. It is today in use but is adjacent to a wider and more heavily used bridge on Interstate Highway 5. This bridge has seven major concrete arches. There are bronze markers

mounted in small balconies on both the south and north ends of the bridge in honor of Robert Booth for whom the bridge was named.

NAME:
(Common) "Confidence Clinic"
(Historic) Criteser (T.J.) House

ADDRESS OR LOCATION: 393 S.E. Rast Street, Roseburg, Oregon

PRESENT OWNER: Helen Criteser Silvers

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: c. 1905

BACKGROUND: The Thomas J. Criteser house is a one and one-half story building standing near the site of the Roseburg Flouring Mills where Criteser's father-in-law, Isaac Jones, established the first grist mill in Roseburg. The site, near Deer Creek and the junction of the South Umpqua River, is across the street from the 1875 house of John G. Rast who was Criteser's brother-in-law. Nearby also stood Mehl and Rast Roseburg Brewery, founded in 1856 by Schenerman & Fudier.

The house, which has a gable roof, has been altered significantly by window replacement on its west (front) elevation. It has wide eave boards, horizontal tongue-and-groove siding, and a small, open porch on the southwest corner of the front elevation. The porch has turned posts. An exterior fire escape has been added to the second floor on the south elevation. The building is presently]eased to Douglas County by Criteser's granddaughter.

NAME:
(Common) Crafton (Leah) House
(Historic) Phillips (Reubin) House

ADDRESS OR LOCATION: 1434 S.E. Mill Street, Roseburg, Oregon

PRESENT OWNER: Leah Crafton

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: c. 1890

BACKGROUND: This one and one-half story building of Gothic style stands in one of the older residential areas of Roseburg. It is situated south and west of the main business district. The building, of wood frame ' construction, has a very steep gable roof and intricate eave decoration fretwork on the east (front) elevation. Originally the house had two-over-two windows. These have been removed, about 1947, on the first floor, front elevation by the present owner. Part of the porch which extends across the east and north elevations has also been filled in (on the north) for an extension to a bedroom. Diana

Graves owned t his house from 1910-14 and during this time it was the location of the Graves photo studio. The kitchen wing on the west elevation has a large, glassed-in area that was the location of the studio. The building has horizontal tongue-and-groove siding, a transom over the main entrance, and one brick chimney.

NAME:
(Common) Dent (Jack) House
(Historic) Unknown

ADDRESS OR LOCATION: 1567 S.E. Pine Street, Roseburg, Oregon

PRESENT OWNER: Margaret Dent Dunn

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: C. 1900

BACKGROUND: The former Jack Dent residence is a one story, wood frame building with Queen Anne style elements standing in the older residential area in south Roseburg. The house, in excellent condition, has a hipped roof with a central brick chimney. This square building has horizontal tongue-and-groove siding and a wood apron around the foundation. The eave has a very wide frieze board with ornamental brackets. The corners of the building have vertical boards topped with a small entablature. The windows are one-over-one with a transom above the main doorway. A front porch on the west elevation has a gable roof. There is a small porch on the south elevation and a projecting window bay.

NAME:
(Common) Dysinger (Treaves) House

(Historic)	(same)
ADDRESS OR LOCATION:	927 S.E. Mill Street, Roseburg, Oregon
PRESENT OWNER:	Alvin H. Berkshire
ORIGINAL USE:	Residence
DATE OF CONSTRUCTION:	C. 1910
BACKGROUND:	The Treaves Dysinger house is a smaller example of a mission style house adjoining the William L. Dysinger house at 511 S.E. Mosher, Roseburg, Oregon. This two story, wood frame structure with a nearly flat roof, is built, like the larger Dysinger house, to simulate a brick exterior. This house has a porta-cochere on its north elevation (with a bedroom above) and a garage, also in simulated brick, behind the house. A large porch extends along the west (front) elevation. The flat roof has very wide, projecting eaves supported by four-by-four beams. Treaves Dysinger was the son of William L. Dysinger.

NAME:	
(Common)	Dysinger (W.L.) House
(Historic)	(same)
ADDRESS OR LOCATION:	511 S.E. Mosher Street, Roseburg, Oregon
PRESENT OWNER:	E. M. Johnson
ORIGINAL USE:	Residence
DATE OF CONSTRUCTION:	C. 1910
BACK-GROUND:	The William L. Dysinger house is an unusual, two story wooden frame building which is constructed to simulate a brick building. The exterior of this mission style house is simulated brick. The rectangular house has very wide, projecting eaves supported by four-by-four beams. The house is symmetrical with two-over-one windows. The house has a nearly flat roof, basement, garage under a kitchen wing on the south (back) elevation, and another garage, also in simulated brick, in the alley behind the house. A very large porch extends across the north (front) elevation. The main entrance is surrounded by natural wood panels and moldings (varnished). This house is situated next to a matching structure, the home of

Treaves Dysinger. Dysinger moved to Roseburg in 1892 and in 1894 became a partner in J. G. Flook Company's planing-mill. By igo4 Dysinger was the general manager of the Flook Company.

NAME:
(Common) Federal Office Building
(Historic) U.S. Post Office

ADDRESS OR LOCATION: 704 S.E. Cass Street, Roseburg, Oregon

PRESENT OWNER: U. S. Government

ORIGINAL USE: Post Office

DATE OF CONSTRUCTION: 1916

BACKGROUND: The Federal Office Building, formerly the Roseburg Post Office, was constructed in 1916 by the U.S. Government. James A. Wetmore Was the supervising architect. This building, in Colonial or Georgian style, is a three story brick building in the business district of Roseburg, Oregon. It has a flat roof with brick piers and open stone railings as a major architectural feature above the third floor. The rectangular building has symmetrical two story window bays, two on either side of the main entrance. These are repeated on the east and west elevations. The brick is a cream-white color; the banding, keystones, and other decorative material is cut, dressed sandstone. The original window cases have been replaced with aluminum frames. The building has a full basement. A pair of cast iron light standards are placed on either side of the main entrance.

NAME:
(Common) Hamilton (J.W.) House
(Historic) (same)

ADDRESS OR LOCATION: S.E. Kane & S.E. Lane Streets, Roseburg, Oregon

PRESENT OWNER: Jane Clark

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: c. 1895

BACKGROUND: The J.W. Hamilton house stands on the hill east of the business district of Roseburg and looks over the city

toward the west. It is an imposing two and one-half story building of Queen Anne style. This wood frame building has a hipped roof broken by major gables. A round tower rises on the northwest corner through the first and second floors to have a round room beneath a cone-shaped roof cap. The exterior of the tower room is shingled as are sections of the gables. Timbering and stucco work also decorate the gables. The house has a large porch on the north and west elevations on the first floor and has a balcony on the second floor. The house has a basement and is in excellent condition. The grounds are essentially as landscaped when the house was built. A driveway encircles the building and runs through the gardens. Most of the windows are one-over-one. J.W. Hamilton was a Douglas County judge.

NAME:
(Common) Howell (M.R.) House
(Historic) (same)

ADDRESS OR LOCATION: 843 S.E. Jackson, Roseburg, Oregon

PRESENT OWNER: Florence Kohlhagen McHenry

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: c. 1885

BACKGROUND: The M.R. Howell house is a one and one-half story, wood frame building which has a mixture of Italianate and Gothic styles. It has horizontal tongue-and-groove siding with vertical boards and small entablatures on the corners. It has a steep pitch gable roof with major and minor cross gables, each with elaborate cut designs in the eave boards. The house has a projecting window bay on the first floor front (east) elevation with semi-elliptical windows. Frieze boards and decorative cornices give an Italianate feeling to this window bay; its roof is nearly flat. A porch extends along half of the front elevation and has a balcony above. The porch has turned, round columns; it extends along the south elevation and is partially glassed-in.

The house has another small porch on its northeast corner. This building has two major brick chimneys. They are covered with stucco and have flaring tops. Most of the windows are one-over-one, double hung

sash. The building has a basement and is set among several old trees. The house is in good condition.

This house was built by M.R. Howell and is occupied by his granddaughter, Florence Kohlhagen McHenry. Howell operated a foundry and later owned a lumber yard in Roseburg, Oregon.

NAME:

(Common) Hunter 7 House
(Historic) (same)

ADDRESS OR LOCATION: 613 S.E. Mosher Street, Roseburg, Oregon

PRESENT OWNER: Earl Decker

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: 1894

BACKGROUND: This one and one-half story, wood frame building near the business district of Roseburg, Oregon, bears the date "1894" above its entrance on the northwest (front) elevation. Constructed by a carpenter named Hunter, and later owned by his son Fred Hunter, this residence was many years ago converted into a duplex. It hat two front entrances on its northwest and northeast corners. The building is rectangular in shape with major cross gables on its north and south elevations. The front elevation has elaborate eave cutouts on the gable, cross banding moldings, and decorative brackets at the junction of the gable with the house. The general appearance of the structure indicates a Queen Anne style.

The windows are primarily one-over-one double hung sash. The exterior is double tongue-and-groove siding. The house has a new, composition roof and is in excellent condition.

NAME:
(Common) Jones (Isaac) Grist Mill Site
(Historic) Roseburg Flouring Mills

ADDRESS OR LOCATION: S.E. Stephens at Deer Creek, Roseburg, Oregon

PRESENT OWNER: Douglas County

ORIGINAL USE: Grist Mill Site

DATE OF CONSTRUCTION: c. 1855

BACKGROUND: The Roseburg Flouring Mills were established near the junction of Deer Creek and the South Umpqua River in Roseburg about 1855 by Isaac Jones. Jones was born October 22, 1816, in Morgan County Ohio. In 1852 Jones emigrated overland to Oregon with his wife Anna and several children. He took a claim of 320 acres on Deer Creek on November 25, 1854. Isaac Jones died in Roseburg on December 7, 1893, at the residence of T.J. Criteser, his son-in-law and partner in the flour mill.

The site of the grist mill is situated at the junction of Diamond Lake Blvd. and Old Highway 99 (S.E. Stephens Street). The area is overgrown with blackberries and small trees.

NAME:
(Common) New Era Roller Mills Site
(Historic) New Era Roller Mills

ADDRESS OR LOCATION: West of 1750 S.E. Mill Street, Roseburg, Oregon

PRESENT OWNER:
ORIGINAL USE: Grist Mill Site

DATE OF CONSTRUCTION: 1880

BACKGROUND: The New Era Roller Mills, located at the mouth of Parrott Creek on the banks of the Umpqua River in south Roseburg, were erected in 1880. Al] that remains at the site in 1976 are the concrete and brick piers and foundations for the mill buildings. These are located between the Southern Pacific Railroad tracks and the Umpqua River.

John G. Flook, one of the owners of the New Era Mills, settled in Douglas County, Oregon in 1860. In 1880 Flook erected the New Era Rollers Mills which, in 1894, had three stands of rollers and a capacity of fifty barrels of flour a day. His millrace and dam (on the Umpqua River) cost him $20,000; the mill cost $10,000. In 1886 Aaron Rose joined Flook as a partner in these operations.

NAME:
(Common) Parrott (Moses) House
(Historic) (same)

ADDRESS OR LOCATION: 1772 S.E. Jackson Street, Roseburg, Oregon

PRESENT OWNER: Leonard Grensky

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: C. 1900

BACKGROUND: The Moses Parrott house is a two story, wood frame building in Queen Anne style that stands in south Roseburg. It is located near the banks of Parrott Creek and is approximately one-fourth mile east of the South Umpqua River. The house, which consists of three rectangular masses, is dominated by an over-sized three story tower that has a cupola room with eight one-over-one windows. A frieze board surrounds the house at the eaves and is decorated with round medallions between the brackets that are placed under the eaves. The house has horizontal tongue-and-groove siding which is turned on a diagonal on both the first and second floors on the north and west gable ends. The gables are heavily decorated with imbricated shingling and open work. A large porch opens on the first and second stories beneath the tower room. The house is in good condition and has many original plantings in-the yard.

Moses Parrott was born in Wales in 1825. He was a shoemaker in Roseburg at the time of the 1860 census. His wife died in 1904.

NAME:
(Common) Parrott (Moses) Wash House
(Historic) (same)

ADDRESS OR LOCATION:
PRESENT OWNER: Leonard Grensky

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: C. 1900

BACKGROUND: The Moses Parrott wash house is the principal remaining outbuilding at the Moses Parrott house in south Roseburg. The wash house is a rectangular, wood frame building of one and one-half stories. It has a gable roof, horizontal tongue-and-groove siding, and one remaining four-over-four paned window in its east gable end. The building has three doors and appears to have been both a woodshed and wash

house. It stands to the southeast of the Parrott house.

NAME:
(Common) Pitchford (Will) House
(Historic) (same)

ADDRESS OR LOCATION: 714 S.E. Mosher, Roseburg, Oregon

PRESENT OWNER: Aggie Pitchford

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: c. 1890

BACKGROUND: The Will Pitchford house is a one and one-half story building with a saltbox style. The building appears to have had significant alteration of its windows, preserving narrow windows only on its west elevation.

These are pairs of windows with four panes. The other windows appear to have been rep aced about 1910. The house has horizontal tongue-and-groove siding and two brick chimneys. A dormer projects from the roof on the south (front) elevation. This house was the residence of Will Pitchford, long-time editor of the Roseburg Plaindealer.

NAME:
(Common) Rast (John) House
(Historic) (same)

ADDRESS OR LOCATION: 236 S.E. Stephens Street, Roseburg, Oregon

PRESENT OWNER: Stanley Rast Kidder

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: c. 1875

BACKGROUND: The John Rast house is a one and one-half story, wood frame building standing near the junction of Deer Creek and the South Umpqua River. It is two blocks from the Douglas County courthouse. This house has been occupied by the same family for the past 101 years. The family has resided on this site since it was filed up by Isaac Jones On November 25, 1854, as his Donation Land Claim. Clara Jones, a daughter of Isaac Jones, married John Rast in 1864. John Rast who had this building erected at the time of

his marriage, was born in Switzerland in 1838. Rast became a partner with Gotlieb Mehl in 1864 in the brewery which had been established in Roseburg in 1856 by Schenerman & Fudler. In 1894 Rast was also interested in the Roseburg Roller Mills, the first grist mill in Roseburg which had been erected by his father-in-law Isaac Jones. The house is today occupied by Rast's grandson, Stanley Rast Kidder. This Gothic style house is a "T-shaped" building. It was resited about 1937 at the time of the widening of S.E. Stephens Street. The house was moved west about thirty feet.

NAME:
(Common) Rentoul & Denholm Mill Site
(Historic) Rentoul & Denholm Woolen Mill

ADDRESS OR LOCATION: mile north of mouth of Parrott Creek, Roseburg, Oregon

PRESENT OWNER:
ORIGINAL USE: Woolen Mill Site

DATE OF CONSTRUCTION: 1888

BACKGROUND: In 1888 James Rentoul and James Denholm constructed a woolen mill on the banks of the South Umpqua River near the business district of Roseburg. This mill, approximately one-half mile north (downstream) from the mouth of Parrott Creek (where the New Era Roller Mills were erected in 1880), stood beside the South Umpqua. The mill was inundated by the flood of 1890 and much of it was washed away. Some of the buildings which were salvaged were later converted into residences which yet stand on S.E. Mill Street. The site of the woolen mill is between the Southern Pacific Railroad Track and the river and is adjacent to the Micelli Park. The site is overgrown with blackberries and brush.

NAME:
(Common) Rice (Napoleon) House
(Historic) (same)

ADDRESS OR LOCATION: 709 S.E. Kane Street, Roseburg, Oregon

PRESENT OWNER: Mrs. Edith Castle

ORIGINAL USE: Residence

DATE OF CONSTRUCTION: C. 1900

BACKGROUND: The Napoleon Rice House is a one and one-half story building of Queen Anne style on a hill east of the business district of Roseburg, Oregon. The house, which faces west, overlooks the city. It has a hipped roof with cross gables on the north and west (front) elevations. The exterior is covered with horizontal tongue-and-groove siding, except for imbricated shingle work on the gables. A round tower rises on the northwest corner of the house and has an open balcony on the second floor. A porch encircles the house on its west and north elevations. The house has a band of imbricated shingles that girdles it beneath the first and second stories. The gables have cut eave decoration boards. The building has two brick chimneys. An apartment has been made in the back of the house,

NAME:
(Common) Roseburg Hotel
(Historic) Depot Hotel

ADDRESS OR LOCATION: 513 S.E. Lane, Roseburg, Oregon

PRESENT OWNER: Ralph & Caroline Smith

ORIGINAL USE: hotel

DATE OF CONSTRUCTION: c. 1875

BACKGROUND: The Depot Hotel, a building which faces west on Sheridan Street, is adjacent to the railroad yards and the Southern Pacific depot in Roseburg, Oregon. The building is a two story, wood frame structure with a rectangular shape. It has horizontal tongue-and-groove siding. Originally this building had a porch and balcony along its western elevation. The gable roof has been broken by the addition of two dormers on the west side. The windows have been changed so that there are one-over-one windows on the second floor and two-over-two on the first floor. The transom window, once above the door to the balcony, remains on the second floor, west elevation. Rather prominent window entablatures remain above the window bays on the second floor.

In 1903 this building was adjoined on the north elevation by the brick, two story Roseburg Hotel of which this building became a part. Harvey Jones

purchased the Depot Hotel in 1898 and built the brick building. The Depot Hotel is in poor condition but still serves as a hotel. Its address is that of the Roseburg Hotel to which it is attached.

NAME: (Common) Roseburg Hotel (Historic) Roseburg Hotel

ADDRESS OR LOCATION: 513 S.E. Lane, Roseburg, Oregon

PRESENT OWNER: Ralph & Caroline Smith

ORIGINAL USE: hotel

DATE OF CONSTRUCTION: 1903

BACKGROUND: The Roseburg Hotel is a two story brick building with an "L" shape. It stands near the Southern Pacific Railroad Depot in Roseburg, Oregon and has a corner entrance at the junction of Lane and Sheridan Streets. The second story has pairs of one-over-one double hung sash windows with simple wood surrounds. The exterior of the building is covered with stucco. The first floor has large, plate glass windows for the hotel lobby and former restaurant. A wood frieze with ornamental brackets runs around the building above the second floor. The Roseburg Hotel was built in 1903 adjoining and attached to the Depot Hotel which was built in the 1870's. This building was constructed by Harvey Jones who had purchased the Depot Hotel in 1898.

NAME:
(Common) S.P. Railroad Depot
(Historic) Southern Pacific Depot

ADDRESS OR LOCATION: 706 S.E. Sheridan, Roseburg, Oregon

PRESENT OWNER: Southern Pacific Railroad

ORIGINAL USE: Railroad Depot

DATE OF CONSTRUCTION: c. 1912

BACKGROUND: This one story, wood frame building of mission style architecture stands adjacent to the railroad yards near the business district of Roseburg, Oregon. The building has a gable roof with long, wide eaves. The base of the building is brick, but the upper two-thirds

of the exterior is stucco. Two dormers break the roof on the east elevation, while a major cross gable with a dormer window projects from the roof on the west elevation. The gable ends of the roof have horizontal tongue-and-groove siding. The building has one brick chimney. The window treatment is primarily six-over-one, double hung sash windows. This depot is the third to serve Roseburg, Oregon. It has facilities for freight storage and passengers.

NAME:
(Common) Winchester Bridge
(Historic) (same)

ADDRESS OR LOCATION: North Umpqua River, Winchester, Oregon

PRESENT OWNER: Southern Pacific Railroad

ORIGINAL USE: Railroad Bridge

DATE OF CONSTRUCTION: 1906

BACKGROUND: The Southern Pacific Railroad bridge at Winchester is a major span crossing the North Umpqua River. It is of steel construction and has three spans set on concrete piers in the river. The date '11906" is cut in the steel work on either end of the bridge. This bridge replaced an earlier bridge constructed by the Oregon and California Railroad in 1872. That line reached south from Portland to terminate at Roseburg in 1872. A.G. Walling, writing in 1884, commented: "The advent of this road into Southern Oregon, although it penetrated only to the center of Douglas County, was an event of supreme importance. The whole region brought within the circle of its influence was invigorated and entered upon a season of unwonted prosperity." Commencing in 1882 this line was then extended to the Rogue River Valley, over the Siskiyou Mountains, and into California.

NAME:
(Common) Winchester Dam
(Historic) (same)

ADDRESS OR LOCATION: North Umpqua River, Winchester, Oregon

PRESENT OWNER:
ORIGINAL USE: water power

DATE OF CONSTRUCTION: 1889; ff.

BACKGROUND: The Winchester Dam has existed over the past 87 years. Its early history was described in 1966 by H.F. Pearson:

"The dam was built across the North Umpqua at Winchester in 1889. The first dam was built of logs and reportedly was constructed by a Mr. Briggs, who hauled the logs to the site with oxen. William R. (Billy) Vinson and a man named Vose built a sawmill there. Later Kendall Brothers Lumber Company operated a sawmill just above the power plant on the south side of the river."

In 1890 the Douglas Electric and Water Company was also using this dam. The dam was used to create a fall for generation of electricity.

In 1976 the dam is primarily of concrete construction, though some timbered material remains. The former power station at the south end of the dam has been removed but the concrete footings for the buildings remain. A fish ladder has been constructed at the north end of the dam.

APPENDIX B

FEDERAL LAWS PERTAINING TO THE PROTECTION OF CULTURAL RESOURCES

1906-- Antiquities Act (P.L. 59-209) Established protection over any "historic or prehistoric ruin or monument, or any object of antiquity situated on government lands . . ."; required permits for their removal. Secretary of the Interior charged with responsibility.

1935-- Historic Sites Act (P.L. 74-292) Congress declared that "it is a national policy to preserve for public use historic sites, buildings and objects of significance . . ." Act empowers the Secretary of the Interior through the National Park Service to conduct surveys, publish studies and otherwise encourage the preservation of historic properties not federally funded.

1960-- Reservoir Act (P.L. 86-523) Gave the Department of the Interior through the National Park Service major responsibility for preservation of archeological data that might be lost specifically through dam construction.

1966-- National Historic Preservation Act (P.L. 89-665) Established Advisory Council, expanded the National Register of Historic Places, pledged federal assistance to the preservation efforts of state and local groups. Advisory Council given responsibility to comment on effect of federal undertakings on properties entered in the National Register.

1968-- Federal Aid Highway Act of 1968 (P.L. go-495) Amended Section 3 of the Federal Highway Act of 1966 and Section 4(f) of the Department of Transportation Act, and declared that in the development of federally aided transportation plans and programs special effort should be made to preserve the natural beauty of the countryside, public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

1969-- National Environmental Policy Act (P.L. 91-190) Title 1, Section 101(b), ". . it is the continuing responsibility of the federal government to use all practicable means . . . to preserve important historic, cultural and natural aspects of our national heritage. . ." Under Title 1, Section 102(2) (c), federal agencies were to prepare environmental impact statements for each major federal action having an effect on the environment.

1971-- Executive Order 11593 "Protection and Enhancement of the Cultural Environment." Charged federal agencies with responsibility to survey all lands and nominate properties to the Register. Requires Secretary of the Interior to advise other federal agencies in matters pertaining to the identification and evaluation of historic properties located on lands in their jurisdictions.

1974-- Archeological and Historic Preservation Act (P.L. 93-291) Amended the Reservoir Salvage Act of 1960. Secretary of the Interior to be responsible for coordinating and administering a nationwide program for recovery, protection and preservation of scientific, prehistoric and historic data.

1976-- Tax Reform Act (P.L. 94-455) Section 2124 provided for changes in federal tax treatment of demolition costs, rehabilitation expenses, depreciation, and charitable contributions of partial property interests when certified historic properties are involved.

OREGON LAWS PERTAINING TO THE PRESERVATION OF CULTURAL RESOURCES

Archeology

ORS §273-705-.742 (1942) governs removal of archeological, historical and other valuable materials from state land. Permits required from Division of State Lands and President of University of Oregon. Provision made for finder's fee for discovery of valuable materials.

Oregon H.B. 2625, 1977 Regular Session. The bill, which provides greater protection for antiquities in Oregon, classifies removal of archeological, historical, prehistorical or anthropological materials from state lands as a Class B misdemeanor. It was signed into law following the last Legislative session.

Oregon H.B. 2626, 1977 Regular Session. The bill prohibiting tampering with Native Indian cairns and graves also was signed into law in 1977. It requires reinternment of discovered Indian remains, while permitting scientific archeological study of such sites and remains.

Archives and Historical Commissions

ORS §358.110-770 (1973) governs city and county museums and county memorials, monuments and historical funds.

Historic Preservation

ORS §271-710 (1974) authorizes state or any county, city or park and recreation district to acquire conservation of scenic easements to preserve or maintain all or part of natural or existing state of historical or other appropriate places of public significance. Use of power of eminent domain prohibited.

Oregon H.B. 2686, 1977 Regular Session. The Public Buildings Cooperative Use Act insures that the state government will investigate the feasibility of adapting historic properties whenever additional space and facilities are required. The state law, signed by the Governor on July 21, 1977, was a first of its kind at the state level in the country.

Protocol Agreement to implement the Federal Public Buildings Cooperative Use Act of 1976. In 1977, also, the Governor signed a protocol agreement with the federal General Services Administration. It was the first agreement between the GSA and a state government to implement the Federal Public Buildings Cooperative Use Act of 1976. The agreement provides that the GSA will notify the State Department of General Services and the State Historic Preservation Office when there is any major relocation of federal facilities in Oregon. The agreement provides that priority consideration will be given to the adaptation of recognized historic properties.

Environmental Quality

ORS §390.310-.368 (1973) establishes Willamette River Greenway to protect, preserve and restore natural qualities and historic sites, structures, facilities and objects on lands along Willamette River; specifies procedures for acquisition of land and scenic easements.

ORS §390.410-.450 (1973) establishes Columbia River Gorge Commission with power to preserve and protect scenic and historic areas of Columbia River Gorge.

ORS §390-805-.990 (1973) establishes scenic waterway system to preserve certain free-flowing rivers and adjacent lands possessing outstanding historical and archeological values.

ORS §273-562-.597 (1974) authorizes establishment of natural area preserves system, including land and water (although altered in character) important for study of historic and paleontological features or appreciation of natural features.

Historic Trails

ORS §376.220 (1971) authorizes citizens of road district or county to establish trails under control of court of county where located.

ORS §376.605 (1971) authorizes Department of Transportation to construct public pedestrian trails and bridle paths connecting legally established streets, roads and public parks with Pacific Ocean shore.

ORS §390-950-.989 (1973) authorizes Department of Transportation to establish Oregon Recreation Trails System. Before establishing trail, department to consider at a public meeting areas adjacent to such trails to be utilized for scenic and historical purposes. Rights-of-way to be of sufficient width and so located as to protect natural conditions, scenic and historic features and any primitive character of trail area.

Parks and Historic Sites

Oregon Constitution, Art IX, 3 authorizes use of proceeds from tax on motor vehicles or motor vehicle fuel for acquiring, maintaining and publicizing parks and historic places.

ORS §226.110-.400 (1971) authorizes cities to establish public parks and memorials.

ORS §226.010-.590 (1973) authorizes communities to establish parks and recreation districts.

ORS §390.010-.290 (1973) establishes State Parks and Recreation Divisions with power to acquire and develop scenic or historic places. Establishes state policy to preserve and restore for public enjoyment and education structures, objects, facilities and resources as examples of state history, archeology and natural science.

ORS §377-505-.545 (1974) establishes Scenic Area Board with power to designate scenic areas, deveined as areas adjacent to or along segment of public highway within federal or state park, sites of historical significance or sites affording view of unusual natural beauty.

ORS §276.001-.108 (1974) establishes Capitol Planning Commission with power to preserve and maintain capitol area in Salem. Executive residence also to be maintained.

Enabling legislation authorizes State Parks Branch, Department Transportation, to accept conservation or scenic easements on historic property in perpetuity. None have been accepted.

Taxation

ORS §208.740-.790 (1974) authorizes assessment of land as ilopen space" to reduce economic pressure and prevent forced conversion of open space land to more intensive uses. "Open space land" defined as any land area preservation of which in its present use would preserve historic sites.

Oregon H.B. 2342. 1975 Regular Session declares state policy to encourage rehabilitation of existing rental units in substandard condition. Enables cities and counties to establish exemption from ad valorem taxation for five years at 100% of assessed value of qualified rehabilitation improvements to non-owner-occupied rental housing at least 25 years old. Establishes formula to determine when provisions apply and procedure for granting exemptions, including filing agreement with city or county to negotiate rental rates to be charged. Requires that improvements be made before January 1, 1978, to qualify for exemption.

Oregon H.B. 2333, 1975 Regular Session provides that land located in commercial, industrial, or high-density residential zone which is used, and has been used for preceding five years, exclusively for single-family residence, be assessed at its true cash value for single-family residence and not at value if applied to other use.

Oregon H.B. 2344, 1975 Regular Session establishes exemption from assessed valuation of owner-occupied, single-family residential property for amount of increased valuation directly attributable to deferred maintenance performed and completed during period of July 1, 1975, to December 31, 1982. Deferred maintenance defined as repair or replacement to existing dwelling which does not increase square feet of living space.

Oregon S.B. 265, 1979 (H.B. 2476, 1975) Regular Session declares state policy to maintain and preserve properties of state historical significance. Owner of property listed in National Register of Historic Places to apply to county assessor for property tax classification, with review of application by State Historic Preservation Officer. Requires county assessor to assess property classified as historic at its true cash value at time of application for next 15 consecutive assessment years.

Tort Liability

ORS §105.655-.680 (,1974) establishes standard of care owed by landowners to those they allow to use property free of charge to view historic and archeological sites.

APPENDIX C

SOURCES OF PRESERVATION FUNDING

There are several publications that preservationists can consult for information on preservation funding. The National Trust for Historic Preservation's "A Guide to Federal Programs" (1974) and the 1976 "Supplement" (current through December 1975) provide a comprehensive survey of federal programs that can be used to benefit preservation (such as Federal Surplus Property, VA, Farmers Home, SBA, National Endowment, HABS, and HAER). Both are available through the National Trust Bookstore, 740-748 Jackson Place N.W., Washington, D.C. 20006. A good source of information on local programs is "Neighborhood Preservation: A Catalog of Local Programs," which can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The following sample listing summarizes information that is not available in the above publications and includes recent revisions in federal and other programs that create new sources of preservation funding, that extend existing funding resources, or that act to encourage preservation in other ways.

NATIONAL PARK SERVICE GRANTS. Matching grants are issued to States, the District of Columbia, Territories, and the National Trust. Funds may be used for surveys of the state for historic properties, preparation of historic preservation plans, preparation of nominations to the National Register, and acquisition and preservation of properties listed in the Register. At the discretion of the Secretary of Interior, grants for up to 70% of costs for survey and planning may be made. However, currently the Secretary is granting 50% funding for survey and planning and acquisition and development projects. Funds may be transferred by State Historic Preservation Officers (SHPO's) to private organizations, individuals, or governmental subdivisions.

THE ARCHEOLOGICAL AND HISTORIC PRESERVATION ACT OF 1974 authorizes programs of the Interagency Archeological Services Division in the National Park Service, and makes federal construction programs and all programs licensed or otherwise assisted by federal agencies responsible for the damage they may cause to the nation's scientific, prehistoric, historic, and archeological resources. The act

provides agencies with specific authority to conduct necessary data recovery investigations in conjunction with authorized, funded projects. Federal agencies may seek appropriations, obligate existing funds, or use 1 percent of project funds to pay expenses.

CONSULTANT SERVICE GRANTS, provided by the National Trust on a matching basis, go to nonprofit or public member organizations to pay for consultants on preservation problems. Grants average $1,000 to $2,000 and support such projects as historic district and property feasibility studies.

NATIONAL PRESERVATION REVOLVING FUND, sponsored by the National Trust, provides low interest loans to nonprofit or public member organizations to establish revolving funds for improving properties listed in or eligible for listing in the National Register. The National Trust does not assist single site projects. The original $300,000 fund has been enlarged by a $500,000 grant from the Mellon Foundation. Loans are expected to average between $25,000 and $50,000.

EDA GRANTS AND LOANS FOR PUBLIC WORKS AND DEVELOPMENT FACILITIES are authorized by the Public Works and Economic Development Act of 1965. Grants and loans are made to state and local governments, including Indian tribes, and public and private, nonprofit organizations for projects in designated redevelopment areas that will improve opportunities for establishment or expansion of business or industry, create long-term employment or meet pressing needs of the area and provide immediate employment opportunities for long-term unemployed persons. The Public Works and Economic Development Act Amendment of 1976 (PL 94-487) and regulations implementing the amendments allow the Assistant Secretary of Commerce for Economic Development to waive or reduce the non-federal share of a grant (usually 50%) made to a community development corporation that has exhausted its effective borrowing capacity. Community development corporations are defined as (1) any public organization without power of taxation, created under state or local law to further the development of the area, or (2) any private nonprofit organization whose purpose is to further the development of an area. The non-federal shares of grants to state or local

governments may be reduced if the government has exhausted its taxing and borrowing authority.

EDA REDEVELOPMENT AREA LOAN PROGRAM is a new program authorized by Section 204 of the Public Works and Economic Development Act of 1965, as amended. The funds will be distributed to cities for reinvestment to promote economic development. Because of the small amount of money available for FY 78 and the large amount of money required to have an impact on the economic health of an urban area, the funding will probably go to only a small number of cities in FY 78.

EDA BUSINESS DEVELOPMENT LOANS. This program makes available to individuals, state or local governments and local development groups long-term, low interest loans to help establish new businesses or expand old ones where such activity will expand employment opportunities in the area. As a result of a series of amendments to the authorizing legislation for the program, the scope of the Business Development Loan program has increased considerably. Originally, EDA could make direct loans only for fixed asset development, and in connection with those loans, EDA could guarantee loans for working capital for the same business. Now, EDA can make direct loans or loan guarantees for either working capital or fixed asset development. Loans for working capital may be made independently.

TITLE I HOME IMPROVEMENT LOAN program provides FHA insurance for loans made by private financial institutions to finance property improvements that protect or increase the livability or utility of residential or other properties. Currently, an owner of a single-family home can borrow up to $10,000 for 12 years. Maximum loans on multi-family structures are $5,000 per dwelling unit, not to exceed $25,000.

HISTORIC PRESERVATION LOAN PROGRAM is a new program which expands the existing Title I Home Improvement Loan program by providing FHA insurance for loans to finance the preservation, restoration, or rehabilitation of residential properties listed or determined eligible for listing in the National Register of Historic Places, including all residential properties within a National Register district. An incidental commercial use, not to exceed 20% of the structure, is allowable. Available from private lending

institutions at market rates, (not to exceed 12%), these loans will be for up to $15,000 per dwelling unit (not to exceed $45,000 per structure) for 15 years. (Community development block grants may be used to subsidize the market interest on both historic preservation and Title I loans.) SHPO's must review proposed improvements.

COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG) supply federal funds directly to communities for projects that will improve urban living conditions through housing and environmental changes. CDBG funded projects must benefit low or moderate income persons, or aid in the prevention or elimination of slums and blight, or meet urgent community development needs. The community can use block grants to fund such preservation related activities as surveys of cultural resources; development of a historic preservation plan; studies for the adoption of regulatory or protective ordinances; establishment of financial programs, including low-interest loans and grants for rehabilitation of historically and architecturally significant structures; establishment of a revolving fund for the acquisition, rehabilitation, and disposition of historic properties; or easement programs. While considered local money for the purposes of the federal matching grant programs (such as the National Park Service grants-in-aid program), block grant funding carries with it the responsibility to comply with federal laws and regulations protecting historic properties.

URBAN DEVELOPMENT ACTION GRANTS. HUD is now developing regulations for this new program that is expected to be established by the Housing and Community Development Act of 1977, now pending in Congress. Grants will go to severely distressed cities and urban counties to alleviate physical and economic deterioration. Funds are intended to stimulate increased private and public investment, so firm commitments of private and other public funds will be expected from applicants. Commercial, residential and industrial projects will be funded. Projects involving preservation will be eligible; however, projects must be broadly conceived and intended to provide economic stimulus or physical improvements in eligible areas.

HUD SECTION 8 encourages the provision of lower-income housing through rent payment contracts with property owners in which HUD agrees to pay the difference between what a low-income family can pay and the fair market rent on new,

substantially rehabilitated or existing rental units owners must find their own sources of funding for construction or rehabilitation and buildings must meet appropriate standards. In the case of existing units, it may be public housing agencies that will contract with property owners. The Housing Authorization Act of 1976 directs HUD to allocate Section 8 funds in accordance with block grant communities' Housing Assistance Plans (HAP's). Therefore, the priority assigned to rehabilitation of units is established by the individual community.

701 (COMPREHENSIVE PLANNING ASSISTANCE GRANTS) are made to governmental entities or planning organizations and can be used for the following preservation-related activities, as long as they are part of a comprehensive plan: development of criteria for evaluation of historic properties; surveys; identification of historic properties subject to destruction and/or deterioration; consideration of the relationship of historic properties to other elements of comprehensive planning in the jurisdiction; determination of preliminary cost estimates for the rehabilitation or restoration of significant buildings or districts; preparation of district legislation, model preservation contracts, and general administrative and budgetary measures; and preparation of a historic preservation program outlining action needed. Because of the limited amount of 701 funding available, HUD is expecting cities receiving community development block grants to use block grants to fund comprehensive community development plans, if the cities so desire. Therefore, except for planning activities ineligible for block grants, comprehensive community development plans similar in scope to 701 plans are expected to be funded by block grants.

HUD SECTION 312 LOANS are for repairs and improvements needed to bring privately owned property up to minimum property standards. Loans are made only in urban renewal areas, code enforcement areas, areas where CDBG funds are being utilized for rehabilitation, and in urban homesteading areas. Loans can be made for residential, commercial or mixed use properties.

PROPERTY RELEASE OPTION PROGRAM (PROP). Through PROP, HUD sells to local governments (for $1) HUD-owned properties with market values less than $5,000 that have been in the HUD inventory for over 6 months and have been offered for sale

on the private market. The HUD area or insuring office makes properties eligible for transfer by determining that the cost of maintaining the property will exceed the amount for which the property could be sold. Localities can rehabilitate, demolish, and/or sell them at their discretion. Preservationists can periodically call HUD area offices for a list of available properties, and encourage local governments to acquire appropriate properties to restore or demolish for open space.

URBAN RENEWAL. Although the Urban Renewal program has been terminated, some areas still have unexpended Urban Renewal funds for uncompleted Urban Renewal projects. Where such Urban Renewal programs are still in effect, it is still possible for local agencies to write down the cost of historic properties to as little as $1 where circumstances dictate, write down cleared land around historic properties, and provide $90,000 for restoration and/or $50,000 for moving properties listed in or determined by the Secretary of the Interior to be eligible for inclusion in the National Register.

HUD SECTION 202 LOANS FOR HOUSING THE ELDERLY OR HANDICAPPED. Long term, low interest direct loans are made to private, nonprofit sponsors to provide rental or cooperative housing for elderly or handicapped persons through new construction or substantial rehabilitation of properties. A $750 million loan authority is expected to be appropriated for fiscal year 1978. A revision of the regulations concerning Section 202 loans published recently ("Federal Register," January 28, 1977) expands the definition of "Elderly or Handicapped families" and makes other technical changes. Also, regulations concerning proposed application procedures for 202 loans were published for comment in the "Federal Register" on January 31, 1977. The proposed changes are intended to make the program more efficient--among the most significant revisions would be that applications would be submitted to HUD Field Offices rather than to the Washington office and preliminary project proposals will be required to be submitted with applications. These changes are expected to be finalized for administration of the program in fiscal year 1978.

SETTION 202 SEED MONEY LOAN PROGRAM. Provides no-interest loans to incorporated private, nonprofit organizations that will cover as much as 80% or up to $50,000 of the planning costs of Section 202 projects--e.g., preliminary site engineering,

organization expenses and fees for design, loan commitment, legal assistance, and consultations. About $6 million is in the loan fund.

HUD URBAN HOMESTEADING PROGRAM provides for the low cost, conditional conveyance of unoccupied residential properties to individuals or families in communities participating with HUD in the program. To attain full ownership, the recipient must occupy the property for a minimum of 3 years, make necessary repairs, and permit periodic inspections. Thirty-nine cities are participating in the program. Properties are valued at $13.9 million; HUD has committed $16.1 million in rehabilitation loans.

HUD SECTION 235 provides mortgage interest subsidies to low and moderate income families to purchase new or substantially rehabilitated single family homes or condominiums. The Housing Authorization Act of 1976 revised this program so that benefits could be provided to a wider range of lower-income families. The eligible income ceiling was raised from 89 percent of median family income in an area to 95 percent of the median income, with adjustments for smaller and larger families determined by HUD. The Housing and Community Development Act of 1977, now pending in Congress, raises the mortgage limits to $31,000 ($36,000 in high cost areas) and $36,000 for a family of 5 or more ($42,000 in high cost areas).

COLLEGE HOUSING PROGRAM. HUD is reactivating a program that provides direct, 3% interest loans to public or nonprofit educational institutions to assist in providing housing and related dining facilities for students and faculty members. Funds may be used for purchase, rehabilitation and reuse of facilities. Maximum term is 40 years. New regulations for the fiscal year 1978 program have not been made available. Approximately $109 million is expected to be available for loans in fiscal year 1978. HUD's area offices are keeping a list of people interested in receiving information on this program when it becomes available.

INDUCEMENTS FOR PRESERVATION

TAX REFORM ACT OF 1976. Section 2124 of the act, "Tax Incentives to Encourage the Preservation of Historic Structures," provides several new incentives for historic preservation. This section allows for the amortization of rehabilitation expenditures over a 5 year period for income producing properties listed in the National Register, included in a National Register historic district that is certified by the Secretary of the Interior as being significant to the district, or located in historic districts designated under a statute of the appropriate state or local government, if such statute is certified by the Secretary of the Interior as containing criteria which will substantially achieve the purpose of preserving and rehabilitating buildings of historic significance to the district. The law also disallows deductions for demolition of certified historic structures and accelerated depreciation for properties erected on a site previously occupied by a historic structure on or after June 30, 1976. Finally, the act provides that a deduction is allowed for the contribution to a charitable organization or a governmental entity exclusively for conservation purposes of (1) a lease on, option purchase, or easement with respect to real property, in perpetuity; or (2) a remainder interest in real property. Conservation purposes include the preservation of historically important land areas or structures.

FEDERAL PERSONAL PROPERTY DISPOSAL. As of October 17, 1977, nonprofit, tax exempt public or private educational organizations, museums, libraries and public agencies established for a public purpose such as conservation, economic development, or parks and recreation, will be eligible to obtain federal surplus personal property through the General Services Administration. A wide assortment of property, from pots and pans to office equipment, that is no longer required by federal agencies in the discharge of their responsibilities, is available. This property may be useful in administering a preservation office. Distribution will be handled by the individual state agency for surplus property (or Office of Federal Property Assistance). Eligible organizations can write the state agency directly, inspect warehouses and lists of available personal property in their area, or make other specific requests with which the agency will attempt to comply. Methods of establishing charges for services performed by state agencies are currently being reviewed; they are expected to fall within a range of 1-10% of original acquisition costs to cover care and handling. A listing of the proper

state agency to write can be obtained by requesting a "Surplus Property Donation Brochure" from the Office of Personal Property Disposal, GSA-FSS-FWUD. Washington, D.C. 20406.

PUBLIC BUILDINGS COOPERATIVE USE ACT OF 1976 directs the Administrator of the General Services Administration (GSA) to acquire space for federal offices in buildings of historic, architectural, or cultural significance, unless the use of such space would not prove feasible and prudent compared with available alternatives. The legislation also encourages GSA to make space in federal buildings available to persons or firms through leasing of commercial space or provision of services or facilities for recreational or cultural purposes. The act directs the Administrator, prior to undertaking a planning survey, to determine the public building needs of the federal government within a geographical area, to request the Chairman of the Advisory Council on Historic Preservation to identify existing buildings in the community that are of architectural, cultural, or historic interest and that are suitable for purchase to convert into federal office space. The act states that buildings of "historic, architectural, or cultural significance" including, but are not limited to, "buildings listed or eligible to be listed on the National Register . . . "

PRESERVATION TOOLS

TAX INCREMENT FINANCING. Through this technique, property taxes collected above a designated amount in a particular district are set aside for use only within the designated area. Money can immediately pay for any special needs of the area or can be invested for future use.

REVOLVING FUNDS can be used to multiply funds. They can be established with block grants, NPS grants, National Trust funds, Urban Reinvestment Task Force funds, or other sources. Some systems acquire, preserve, and sell historic properties; other systems are for preservation loans to owners. Proceeds return to the fund for other projects so that funds have a continued impact. Private organizations as well as local and state governments can utilize this technique.

FINDINGS

1. The preservation of historical buildings, sites and objects can provide urban area residents and visitors with a valuable and enjoyable connection to the past and provide a sense of place, permanence, continuity and perspective.

2. The Roseburg urban area has an important heritage of historic sites, structures and objects worthy of preservation; however, there has been no comprehensive inventory and analysis of these resources. Both state and federal agencies exist for the purpose of assisting local government and private individuals in the identification, classification and preservation of significant historical resources.

4. The development of a "Historic Preservation Ordinance" would provide a mechanism for identifying, preserving and protecting significant historic resources found in the Roseburg urban area.

5. A joint City-County Historic Resource Review Committee created for the purpose of identifying significant historical sites and structures for inclusion in a local register would avoid unnecessary duplication of effort and would facilitate coordination and uniformity between the two units of government.

6. The limited amount of archeological research conducted in the Roseburg urban area has revealed the potential of significant sites associated with the South Umpqua River. Laws requiring analysis and possible protection of significant archaeological sites apply only to projects involving public funds or public lands which may impact such sites.

GOALS, OBJECTIVES AND POLICY STATEMENTS

Goal

To identify, preserve and protect historic and cultural resources of the Roseburg urban area.

Objectives

1. Develop and expand public awareness of the Roseburg urban area's origin, development and history.

2. Encourage preservation and restoration of sites, structures, objects and areas of cultural, historic or archaeological significance for the enjoyment and knowledge of present and future generations.

3. Establish a local register of significant historical resources.

4. Document the social, economic, cultural, educational and other public benefits to be derived from local historical preservation efforts.

5. Consider the various impacts of land use decisions on identified historical resources during the planning process.

6. Strive for continued and improved cooperation and coordination between units of government as well as other public and private organizations concerned with the identification and preservation of historical resources.

Policies

1. The City of Roseburg will formulate, adopt and implement a Historic Preservation Ordinance which as a minimum will:

a. establish a Historic Resources Review Committee for matters concerning historic resources within the Roseburg city limits;

b. establish a local register of significant historical, cultural and archaeological resources;

c. set standards for use, alteration or demolition of registered historical resources;

d. set standards for the excavation of identified archaeological sites.

2. The City shall explore and consider the use of various incentives to encourage individuals to identify, restore, maintain, and utilize historic resources.

3. The City will encourage and cooperate with individuals and organizations seeking to obtain grants or loans for the purpose of restoring or preserving historic resources.

4. The City will evaluate all city-owned property for potential cultural or historic significance and shall establish policy regarding the use, alteration, removal, demolition or other action which may impact city-owned historical and cultural resources.

5. All city-funded projects shall be evaluated for potential adverse impact on sites, structures or objects of known or unknown cultural, historical or archaeological value.

6. For the protection and preservation of historic resources, the City should consider the application of performance standards, regarding the use, alteration, removal, demolition or other action which may impact city-owned historical and cultural resources.

5. All city-funded projects shall be evaluated for potential adverse impact on sites, structures or objects of known or unknown cultural, historical or archaeological value.

6. For the protection and preservation of historic resources, the City should consider the application of performance standards. density bonus and density transfer techniques, as well as site plan reviews, to minimize the adverse impacts of proposed development on identified cultural and historic resources.

7. The City shall encourage the relocation of significant historical and cultural resources as an alternative to demolition.

PUBLIC FACILITIES AND SERVICES ELEMENT

ROSEBURG URBAN AREA

COMPREHENSIVE PLAN

PUBLIC FACILITIES AND SERVICES ELEMENT

Introduction

The Public Facilities and Services Element is an integral part of the Roseburg Urban Area Comprehensive Plan. The element considers the provision of water, sewers, solid waste, police and fire protection, education, health care and a host of other facilities and services essential to the proper function of the urban area. Some services and facilities are not specifically covered in this element, inasmuch as they are dealt with in detail in other parts of the plan; i.e., transportation facilities, park and recreation facilities, housing services, etc.

It is a known fact that the timing and placement of basic urban services determines the location and timing of development, and thus the ultimate form of the community. In many communities the provision of urban services has been in direct response to development pressure, regardless of the overall impact on the community. A well-developed comprehensive plan, on the other hand, can prevent this single purpose response by directing growth to designated areas. To gain the most desirable results, however, the community's developers must be aware of the type, location and timing of support services.

The Public Facilities and Services Element is not intended to serve as a public facilities master plan or capital improvements program specifying exactly when and where facilities will be provided. Instead, the element establishes the basic concepts and policies upon which facility master plans and capital improvement programs will be formulated.

Public facilities and services are provided in the Roseburg urban area by a number of governmental agencies, service districts, public and quasi-public utilities and cooperative agreements. Douglas County is responsible for a number of urban services that are also provided county-wide. These include health and social services, solid waste management, police service, the court system and tax collection. The City provides a wide range of public services and facilities, primarily within its incorporated

limits. These include sewer, water, public safety (police and fire), parks and recreation, improved streets, bus service, zoning aid development ordinances, and a host of other services.

Special service districts and associations are responsible in some parts of the urban area for the provision of sewer. water, schools and fire protection services. Utilities provide such services as electric power, natural gas and telephone service (see Economic Element).

Finally, private organizations and voluntary associations provide many valuable services to the urban area. These include hospitals, private schools, family and personal service groups, churches, civic organizations, clubs and a variety of advisory groups.

As the community continues to grow in population and area, the demand for services and facilities will increase substantially, requiring careful and coordinated planning and management. The public's investment in and scheduling of these public facilities and services should be viewed as one of the major means of implementing the Comprehensive Plan. Therefore, it is necessary to provide urban services in a sequential manner that recognizes the difference between the current and projected urban service areas. In planning and programming for public utilities, services and facilities, both present and future needs of the Roseburg urban area should be met in a coordinated arrangement recognizing the long-term, ultimate needs of the community.

It is recognized that a discussion of storm drainage facilities for the community is missing from this element. There is a need to develop information on the system, and plan and program its inclusion in the list of public facilities required for fulfillment of this plan.

WATER

Domestic water service in the Roseburg urban area is provided by several purveyors. The Roseburg municipal water system is the primary system, serving the

entire city as well as most of the urbanized area outside the city limits. The entire system was acquired from Oregon Water Corporation in December of 1977, thus obligating the city to continue to provide water service to about 2,200 customers outside the city limits, in addition to the 6,200 customers inside the city. Today, the municipal system serves a total population of about 24,000.

The second largest system is the Umpqua Basin Water Association. This system is not a public service district, but rather a private association or cooperative, supported by water revenues and connection fees. Major development projects have been financed primarily through Farmers Home Administration loans. The Association has a very large service area covering about 75 square miles, of which only a relatively small portion lies within the immediate Roseburg urban area. Generally, the system serves Melrose, Lookingglass, Wilbur, Garden Valley, Fisher Road, and the Umpqua Community College area north of Winchester. The system is currently serving some properties which abut the Roseburg city limits.

Total present demand on the Umpqua Basin system is about 1800 services, providing domestic water to a population of about 5,500 persons.

In the Dixonville area east of Roseburg, water service is provided by Dixonville Water Association. This system serves about 300 connections, or a population of approximately 930 persons. The Dixonville system does not have an independent water source, but rather is tied to the Roseburg municipal system. The city provides maintenance and service billing for the District on an actual cost basis.

The Three Pines Water System is also supplied water via the city system. This system is located just north of the Roseburg city limits, east of the Rifle Range Road area, and serves about 50 connections. The Three Pines system purchases water through a four-inch master meter which serves the entire district.

Roberts Creek Water District serves a large area to the south of Roseburg, including the urbanized Green District. This system takes water from the South Umpqua which is subject to severe low flows during summer months. In 1979 a major system

intertie between the district and the Roseburg municipal system was completed. The intertie is intended to be used only under emergency conditions.

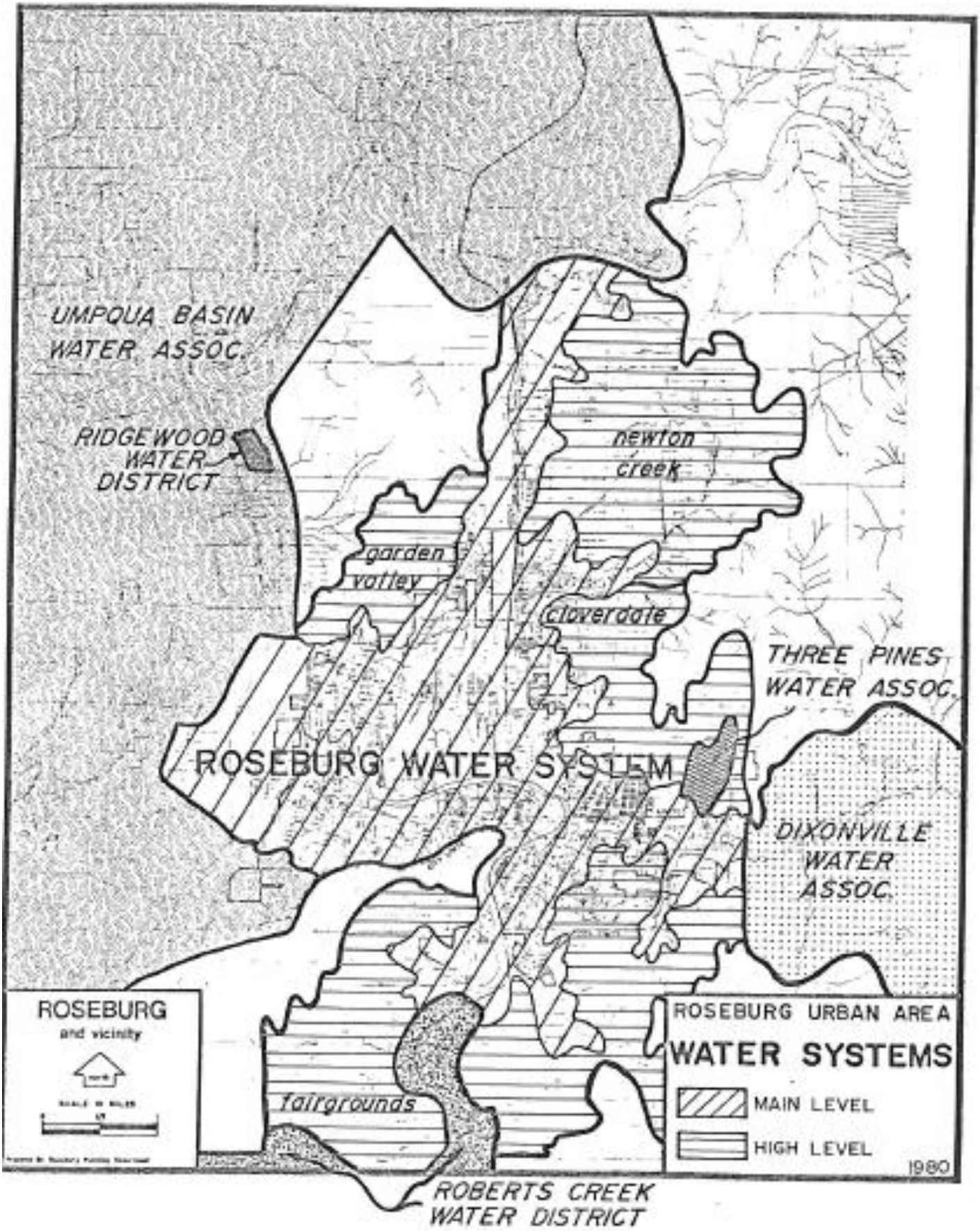
Service areas of the five urban area water systems are shown on Figure 1. Figure I also identifies the six service subareas within the Roseburg municipal system.

Water Source

The North Umpqua River is the source of most domestic and industrial water consumed in the urban area. Umpqua Basin Water Association has its intake on the river at Browns Bridge in Garden Valley. The association has water rights for 9.1 cubic feet per second (cfs) at this location. There are also plans for the association to be allocated 1,000 acre feet of supply from the Berry Creek dam project; however, the additional source would be used primarily in the Lookingglass area, well beyond the Roseburg urban area.

The Roseburg municipal system draws its water from the North Umpqua River at the Winchester Dam, about five miles upstream from Umpqua Basin's intake.The City of Roseburg currently has permits to appropriate a total of31 cfs from the river for municipal use. The City has a priority date of June 2, 1950, for 12 cfs and a priority date of May 21, 1957, for 13 cfs. Both these rights predate the establishment of minimum stream flow requirements. In the fall of 1979, the City secured rights to an additional 6 cfs. These rights, as well as all future water rights, will be limited by the minimum stream flow standards established for the North Umpqua.

Both water systems are about 100 miles downstream from Diamond Lake which is the source of the river. There is relatively little development upstream from the two system intakes. A major portion of the 1350 square mile river basin is in the Umpqua National Forest and is not likely to be developed.


UMPQUA BASIN
WATER ASSOC.
RIDGEWOOD
WATER
DISTRICT
newton
creek
garden
valley
cloverdale
THREE PINES
WATER ASSOC.
ROSEBURG WATER SYSTEM
DIXONVILLE
WATER
ASSOC.
ROSEBURG
and vicinity
fairgrounds
ROSEBURG URBAN AREA
WATER SYSTEMS
MAIN LEVEL
HIGH LEVEL
1980
ROBERTS CREEK
WATER DISTRICT

The Natural Resources Element of the Comprehensive Plan contains a fairly detailed analysis of both stream flow and water quality. Generally, the North Umpqua enjoys a high level of water quality, although turbidity problems do arise during very high runoff periods.

An analysis of stream flow records indicates that minimum stream flow requirements will represent the greatest problem to the two water systems during September. During September, it is estimated that stream flow will fall below the minimums established by the state about 40 percent of the time. Though this reduces the dependability of the supply to meet peak demands, it probably doesn't represent a serious drawback in the foreseeable future since peak demands occur in August when the minimum flow requirements are met over 95 percent of the time.

Water Treatment, Storage and Distribution

Water treatment facilities for both the Roseburg and Umpqua Basin systems are located adjacent to their respective river intake points.

Roseburg's domestic water supply currently receives treatment at the Winchester Water Treatment Plant. This facility, located on the south bank of the North Umpqua can provide complete treatment for 3.4 million gallons per day (mgd). During the summer, when the quality of water in the North Umpqua is high, the plant's settling facilities are not essential. Rated capacity is then limited only by filter size and becomes 10.0 mgd.

The plant was built in 1935 and is located in an area of mixed commercial and residential development. The plant's appearance is compatible with the nearby commercial development. and is not considered objectionable to owners of nearby homes.

New pumps and five additional filters were added in 1950. Filter backwash water settling ponds were constructed in 1977.

Roseburg's raw water intake is located on the south bank of the North Umpqua River, immediately downstream from the old Winchester Dam. The four pumps (Low Lift) in the intake structure are capable of delivering 7,500 gpm to the water treatment plant. Screening is provided to keep debris out of the pumps. The electric motors for the pumps are located below the 100-year flood level and could be damaged during a severe flood.

Water from the intake is carried to the treatment plant in a 16-inch cast iron pipe. Alum, activated silica, and chlorine are injected into this line just before entering the flocculation basins.

The water enters two concrete flocculation basins where the water is slowly mixed to promote the development of large settleable particles of floc. The two 37,500 gallon basins have a combined capacity of 5.4 mgd.

Water carrying the floc formed in the flocculation basins enters two 140,000 gallon concrete basins for settling. They have a design capacity of 3.4 mgd. Since there is no sludge removal equipment, the capacity is reduced by the accumulation of sediment between cleanings. This reduction in settling capacity results in heavier loads on the filters.

In the summertime when the water production is high, the quality of the North Umpqua River is normally good. The operation takes advantage of this by eliminating much of the chemical feed and minimizing the settling. Therefore, this limited settling capacity does not reduce the plant capacity in the summer.

Filtration takes place in eight pressure filters with a total surface area of 1,532 square feet. Five of the larger units have been converted from conventional sand media to mixed media. The three other filter units are older, and have sand media.

In 1971, the condition of the steel filter tanks was evaluated to determine the condition relative to plant operations. Immediate replacement of Filter No. 3 was recommended. Filters I and 2 were estimated to have an operational life of 15 to 20

years although some seam rivets may fail earlier. Filters 4 through 8 were judged satisfactory for 15 to 20 years. That 20-year period ends in 1991.

Treated water is carried from the plant at Winchester to Roseburg in a steel transmission line consisting primarily of 20 and 24-inch pipe. The major portion of the line was installed in 1930. The portion of the line south of Garden Valley Boulevard was replaced with 24-inch pipe in the 1950's. A 30-inch ductile iron line which parallels the 20-inch line for about the first 1.5 miles from the plant was installed in 1965. The Transmission Booster Station, which is used to increase peak flows to the City, was installed in 1975.

The older sections of the transmission main are badly deteriorated and require constant maintenance. The Roseburg Water System Master Plan recommends that this line be renovated and provided with protection against corrosion and another transmission main constructed to provide additional capacity as well as improved dependability.

Umpqua Basin's treatment plant is located on Garden Valley Road near Browns Bridge. Water intake pipes are mounted on the southerly abutment of the old county bridge which was destroyed by flooding in 1964. Two pumps each provide 1,200 gpm to the treatment facility.

The raw water is pumped to a 324,000 gallon detention basin. The basin currently provides a five-hour detention time, but planned improvements to the treatment are expected to reduce the detention time to about two hours. Approximately 500 cubit feet of sediment is removed from the basin annually. The water flows by gravity from the detention basin through the control building where coagulation chemicals are added. This promotes removal of suspended solids from the water.

The treatment plant utilizes three 13-foot single media filters. After filtration, the water is pumped to the plant's 60,000 gallon clear-well, from which the water enters the distribution system. Maximum daily production from the treatment facility is about 1.25 mgd. The current 1,800 connections at the normal standard of 700 gallons per day per

customer (gpdpc) amounts to 1.26 mgd. Thus, any peaking factor applied to the average flow would indicate that the plant is unable to meet the current peak demands.

Umpqua Basin Water Association has recently made application for a one million dollar loan from the Farmers Home Administration to finance improvements to the treatment facility and distribution system. The improvements are intended to ensure the system will meet expected demand over the next ten years. According to the FHA report, the money would not be used to expand the system into areas which could be served by the Roseburg municipal system in the future.

At the present time, the only Umpqua Basin facilities south of Fisher Road and east of the South Umpqua River are a 750,000 gallon reservoir located about one-half mile west of the city limits north of Garden Valley Boulevard, and a ten-inch main which runs from the reservoir northerly to the treatment plant. Another ten-inch line runs westerly from the reservoir to the west side of the South Umpqua River to serve the Melrose area.

Umpqua Basin also provides service south of the South Umpqua River west of the city limits and along Lookingglass Road southwest of the city limits. The close proximity of these facilities to the city raises the issue of future annexation when other services, such as city sewer, are needed to facilitate more intense development of these areas. Although it is beyond the scope of the Public Facilities and Services Element to identify future urban growth areas, the issue of overlapping service areas must be addressed specifically through the Urban Growth Management Agreement.

The City's water system consists of over 100 miles of transmission and distribution mains which vary in size from two inches to thirty inches. Some of the distribution system is nearly 60 years old. The older sections, which are iron and steel, are beginning to deteriorate quite rapidly. Certain types of clays found in the urban area tend to promote corrosion of the older metal pipes. Newer sections of the system use asbestos cement and plastic pipes which are not subject to corrosion.

It has been estimated that system losses (unaccounted for water) annually range between 18 and 22 percent. The acceptable standard is 10-15 percent. Leaking water mains are believed to be the biggest factor in water loss. This is supported by the unusually high number of known leaks which are repaired each year; most occur in the older sections of the system.

The Roseburg system presently has a storage capacity of 9.57 million gallons (mg), Storage is accommodated in eleven structures, ranging in size from 0.02 mg to 4.0 mg as shown in Table F-1.

TABLE F-I
STORAGE
ROSEBURG MUNICIPAL WATER SYSTEM

Name	Capacity (mg)	Date Constructed	Ground Elev. (ft.)	Overflow Elev. (ft.)
Reservoirs I & 2	1.00	1900	696.7	710
Reservoirs 3 & 4	0.50	1890	692.0	701
Tank 5	0.80	1949	694.8	709
Tank 6	0.80	1949	694.8	708
Tank 7	4.00	1980	694.8	708
West Side Tank	0.50	1956	652.0	686
High Level Tank	0.10	1953	994.6	1013
Cloverdale Tank	0.02	1948	770.0	802
Fairgrounds	0.35*	1969	682.1	710
Dixonville	0.50	1966	668.0	708
Garden Valley	1.0	1976	678.5	710
TOTAL	9.57			

*Actual capacity is .75mg; however, due to the arrangement made with Douglas County Fairgrounds, only the top .35 mg can be used, leaving 0.40mg for fairground fire protection.

SOURCE: Roseburg Water System Master Plan, April, 1979.

Reservoirs I & 2 and 3 & 4 are concrete structures with wood and metal roofs. The remainder of the structures are steel structures in good condition. The concrete reservoirs leak through their walls and also have some roof leakage. In 1977, tests indicated a loss of about 9,000 gallons per day from the concrete reservoirs and none from the steel structures. This is regarded as an acceptable leakage rate from reservoirs.

Good storage practice is to maintain three average days of flow in storage at all times. This allows sufficient water within the City under all but the most extreme conditions. Presently, three average days would be approximately 13.8 mg. Thus, the system is approximately 4 mg short (1980) of ideal storage capacity. Continued urban growth will result in an even larger deficiency unless other reservoirs are constructed. The Roseburg Water System Master Plan contains specific recommendations for overcoming present deficiencies and meeting future demand.

Future Water Needs

The Roseburg Water System Master Plan projects future water demand to the year 2000. The projections are based solely on historic trend and are for the city system only. The Plan does not attempt to project total water needs for the entire urban area. Table F-2 shows historical peak consumption for the five-year period of 1973-1977. Data from this table was used to compute the projected future demands which are listed on Table F-3.

As previously noted, the City of Roseburg currently has water rights filed for 31 cubic feet per second (cfs) from the North Umpqua River. One cfs equals 449 gallons per minute (gpm). Thus, 31 cfs equals about 20 million gallons per day (MGD). The projected peak day flow by the year 2000 (assuming a service area population of 40,000 people) is 16.48 MGD, or about 3.5 MGD less than current water rights would provide.

Umpqua Basin Water Association has also projected future water needs in its service area and has planned programs to meet the expected demand. However, the

projections cannot be related to the specific needs of the Roseburg urban area since the great majority of the system's growth is anticipated in the outlying rural areas beyond the limits of the Roseburg Urban Area Comprehensive Plan.

TABLE F-2
ACTUAL PEAK CONSUMPTION
WATER SYSTEM
ROSEBURG, OREGON

YEAR	SERVICE POPULATION	PEAK DAY MGD	PEAK DAY GPCD	3-DAY PEAK MGD	3-DAY PEAK GPCD	5-DAY PEAK MGD	5-DAY PEAK GPCD
1973	20,800	8.78	422	8.65	416	8.51	409
1974	21,300	8.95	420	8.91	418	8.84	415
1975	21,900	9.67	442	9.12	416	8.89	406
1976	22,800	8.80	386	8.32	365	8.12	356
1977	23,300	8.91	382	8.71	374	8.33	358
5 Year	Average		410		395		388

NOTE: MGD - Million Gallons per Day
GPCD - Gallons Per Capita per Day

SOURCE: Roseburg Water System Master Plan, April 1979.

TABLE F-3
PROJECTED WATER DEMANDS*
ROSEBURG, OREGON

YEAR	1977	1980	1985	1990	1995	2000
Customers	7,874	8,300	9,200	10,200	11,350	12,600
(1) Population	23,300	26,500	29,500	32,700	36,300	40,000
(2) Average Daily Flow (MGD)	4.75	5.14	5.71	6.34	7.04	7.81
(3) Maximum Day Flow (MGD)	8.91	10.85	12.05	13-38	14.85	16.48
(4) Estimated Peak Hour (MGD)	14.25	17.36	19.28	21.41	23.76	26-36

NOTE:
(1) Estimated at 3.12 persons per customer.
(2) Based on 620 gallons per customer per day.
(3) Approximately 2.11 times average flow (Historic Average).
(4) Peak Hour estimated to be 1.6 times day

SOURCE: Roseburg Water System Master Plan, April 1979

*Projected water demands are for Roseburg Municipal System only. Additional demand is served by other water systems within the urban area.

Fire Flows and Hydrants

When considering a community's water system, the use of water for domestic and industrial purposes is usually thought of first. Quite often, water systems are designed with these uses in mind, with the emphasis on total volume per day. However, quite different from the normal volume demands of everyday use are the sudden, heavy and unpredictable drafts required to fight fires. While the total volume of water normally used in fire fighting is small, the rate at which it must be supplied should be a major influence in the system's design.

To provide good protection, the distribution system must be capable of delivering recommended fire flows at the recommended pressures. This is normally accomplished by an adequately designed system consisting of loops with sufficient valves to isolate sections of it. The distribution system should have a minimum pipe size of 6 inches in residential areas and 8 inches or larger in commercial and industrial areas.

Fire hydrants must be placed so that each structure can be protected with a minimal amount of hose. The Oregon Insurance Service Office recommends that every structure be within 500 feet of a hydrant. Another criteria is that a hydrant should be installed for every 108,000 square feet in commercial and industrial areas, and for every 160,000 square feet in the residential areas. All fire hydrants should be located on 6-inch mains or larger (8-inch or larger in commercial/industrial areas) and have a pumper outlet in addition to two standard fire hose connections. Each hydrant should have a valve between the main line and the hydrant to make inspection and repair easier.

Shortly after the City acquired its water system, it was evaluated against the standards of the Oregon insurance Service Office. The greatest single deficiency in the water system was an inadequate number of fire hydrants. In fact, the system was judged to be about 450 fire hydrants short, with nearly 325 additional hydrants needed in residential areas and approximately 125 more in commercial and industrial areas.

Another important aspect of water need is fire flow requirements. Table F-4 has been developed to compare flow requirements with population. The figures serve as an indication of fire flow requirements the Roseburg municipal water system should meet as the urban area continues to grow.

TABLE F-4
FIRE FLOW REQUIREMENTS
vs.
POPULATION

POPULATION	FLOW (gpm)	DURATION (hours)
17,000	4000	10
22,000	4500	10
28,000		10
34,000	5500	10
40,000	6000	10

SOURCE: Oregon Insurance Service Office

However, varying densities and types of construction can create higher fire flow requirements for schools, hospitals, commercial, industrial and downtown business or regional shopping center areas. In 1976, the municipal system was evaluated in relation to the types of higher density construction found throughout the water service area. Based on the analysis of the system, the Insurance Service Office made specific recommendations for fire flow requirements for the Roseburg urban area. These recommendations are listed in Table F-5.

TABLE F-5
RECOMMENDED FIRE FLOW FOR
ROSEBURG WATER SYSTEM

AREA TYPE	ISO RECOMMENDED FLOW (gpm)
Commercial	2700-5000
Grade School	3000-3500
High Schools, etc.	4ooo-6000
Shopping Center	2000-3500
Residential	750

SOURCE: Oregon Insurance Service Office, 10-4-77.

The 1979 Roseburg Water System Master Plan provides a much more in-depth evaluation of the municipal water system; both in terms of existing conditions and future needs. The Master Plan is formulated on the assumption that the City of Roseburg will continue to be the principal urban area water purveyor in the future, and will be required to provide water service to the vast majority of the area's new development. Based on this assumption, the Master Plan contains specific recommendations which are intended to improve service to existing customers as well as meet the anticipated growth in demand through the year 2000. The most immediate recommended improvements to the municipal water system are summarized as follows:

1) Construct a new reservoir on Reservoir Hill to increase reliability and improve ability to meet fire flow requirements. (Construction has already begun on a 4.0 mg reservoir at this site.)

2) Upgrade the transmission main from the Winchester Treatment Plant to town. (Sections of the existing 20-inch main have been paralleled with new 30-inch main.)

3) Initiate a program of adding additional fire hydrants to reduce deficiency and improve fire protection rating.

4) Increase the capacity of the Winchester Treatment Plant to meet expected future water needs for the Roseburg urban area.

In addition to these immediate and major system needs, the Master Plan contains many other specific requirements for the water system's future. Therefore, the Roseburg Water System Master Plan and the findings and recommendations contained therein, is incorporated into the Comprehensive Plan by reference.

SEWER

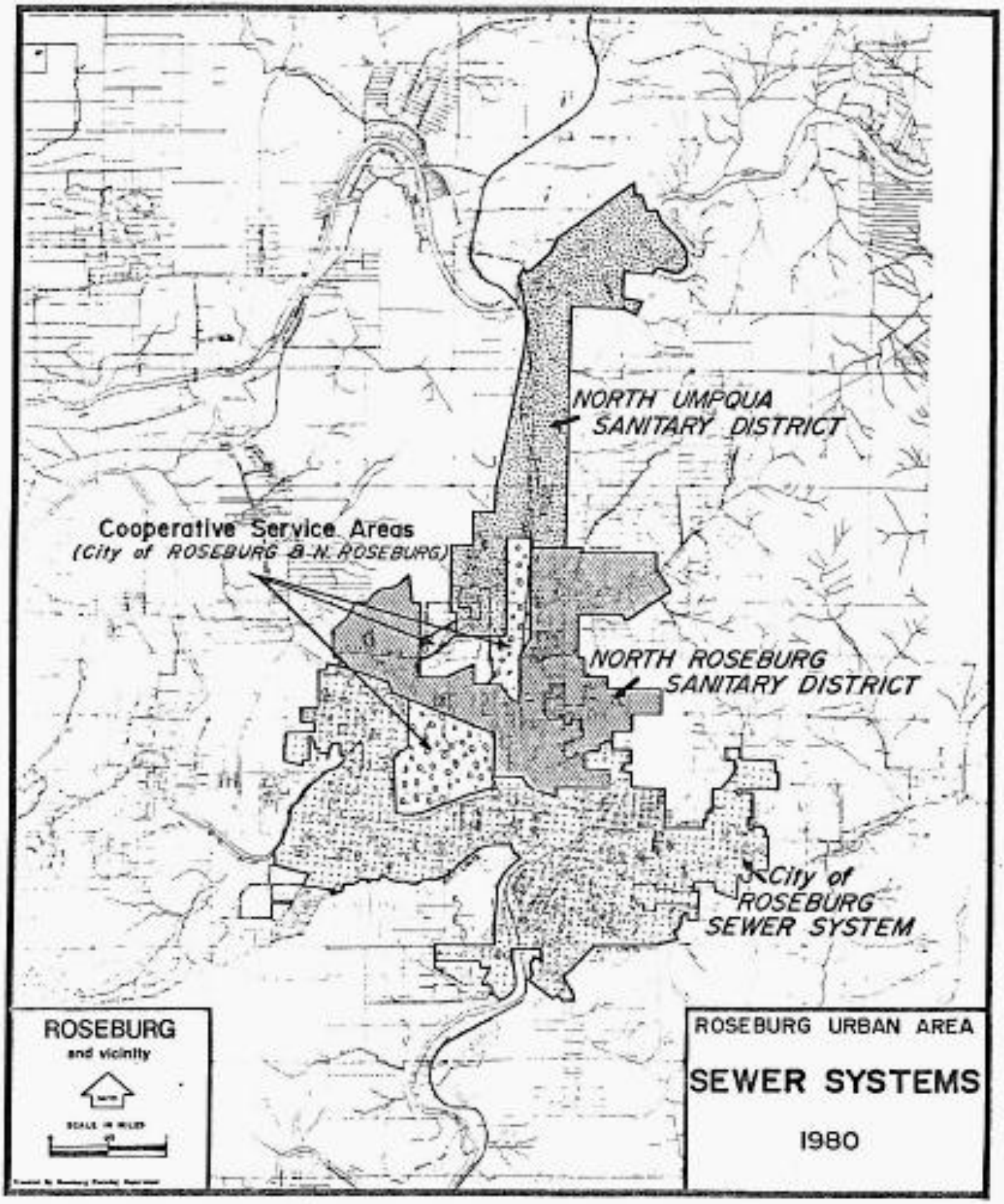
Sanitary sewer service in the Roseburg urban area is provided by three separate agencies. The largest system is operated by the City of Roseburg and serves the southerly half of the urbanized area. The North Roseburg Sanitary District provides sewer service to the northerly one-third of the city, plus unincorporated areas north of the city limits. The north end of the urban area, commonly referred to as the Winchester area, is served by the North Umpqua Sanitary District. Figure 11 identifies the areas served by the three systems.

Roseburg System

The City's system is the oldest; dating back to just after the turn of the century. Although records are incomplete, it is estimated that by 1915 about 95 percent of Roseburg's population was served with sewers. At that time the system consisted of approximately eight miles of pipe. Disposal was facilitated by eight outfalls which dumped the city's raw sewage directly into the South Umpqua River. The system, built as a combined sanitary-storm sewer drainage system, functioned very adequately for a number of years.

As the City continued to grow, concrete streets were built diverting additional storm waters into the system causing it to become overloaded during rains, presenting the City with its first major sewer problem.

In 1938, the City undertook a two year project to enlarge its sewer and storm drainage facilities, including the construction of major trunk lines and a 0.7 million gallon per day (mgd) treatment plant located at the mouth of Deer Creek. Although the existing outfalls were left intact for emergency overflow purposes, the new treatment plant helped greatly in cleaning up the South Umpqua River in the summer while providing one additional overflow for the winter rains.


NORTH UMPQUA
SANITARY DISTRICT
Cooperative Service Areas
(City of ROSEBURG & N. ROSEBURG)
NORTH ROSEBURG
SANITARY DISTRICT
City of
ROSEBURG
SEWER SYSTEM
ROSEBURG
and vicinity
ROSEBURG URBAN AREA
SEWER SYSTEMS
1980

After World War 11 the City began to experience very rapid growth, and within ten years the Deer Creek treatment plant could no longer handle sewage flows.

In 1957, the City began construction on a new treatment facility. Along with the construction of the new plant, the interceptor lines were expanded and new lines were built to carry the sewage about two miles down the South Umpqua River to the new treatment plant sight. The new plant, which still serves the Roseburg system, had a design capacity of 3.6 mgd. With continued rapid growth in the City, it soon became apparent that storm drainage was severely limiting sewage treatment capacity. Ordinances were adopted requiring new development to provide separate storm drains.

In 1970, plans were put forth to separate the storm water from the sewer system. This has been a major undertaking, since 90 percent of the original sewer system was still in use at that time. Water from separated storm drains now empties directly into the South Umpqua or local creeks. Many sections of the system still remain to be separated.

The current estimated average dry weather wastewater flow in the Roseburg system is 2.0 mgd. During the winter months, storm runoff pushes the wastewater flow up to a maximum of about 115 mgd. Since the maximum amount of wastewater treated at the plant is around 5.5 mgd, over 95 percent of the wastewater at peak flow periods bypasses the plant and discharges directly into the South Umpqua River.

The highly diluted sewage in the system during wet periods is able to be treated much faster than dry weather flows. This allows the plant's treatment capacity to more than double during the winter. However, the increased treatment capacity is of relatively little consequence, considering that less than five percent of the peak flow actually reaches the plant.

North Roseburg and North Umpqua Systems

The northerly one-third of the city and most of the unincorporated urbanized area north to Umpqua Community College is served by the North Roseburg and North

Umpqua Sanitary Districts. Both systems are considered together because they both utilize the North Roseburg Treatment Plant. However, each District is legally independent of the other, with separate governing Boards.

The North Roseburg Sanitary District was formed in 1948 in response to the rapid urbanization occurring north of the city. At this time, the Roseburg treatment plant was already overloaded and unable to accommodate the new growth. Although the City of Roseburg knew a larger plant would be built, it would be nearly ten years before the additional treatment capacity would be available. In response to the area’s immediate needs, voters in the North Roseburg vicinity formed the state's first public service district.

The original District boundary generally encompassed an area between what was then the northerly city limits and Meadow Lane. Within a short time, the District boundary was extended to the north to include the Newton Creek Road area, and to the west, taking in the Dogwood Street area.

In later years, much of the south half of the District was annexed to the City of Roseburg, although the District has remained the sole provider of sanitary sewer service in these areas.

In 1950, the Veteran's Administration agreed to lease a site to the District to accommodate a new treatment plant.

Within about ten years of construction, the District's treatment plant was operating in an overloaded condition and plans to enlarge the facility were initiated.

Shortly after expansion of the North Roseburg treatment plant in 1964, enlarged sewer interceptor lines were connected to the newly formed North Umpqua Sanitary District.

Incorporated on November 15, 1963, the North Umpqua District encompassed the urbanizing area north of the North Roseburg District including the Winchester area.

The North Umpqua District currently serves about 900 dwellings plus about 400 mobile homes in ten parks. In addition, service is provided to Umpqua Community College, Mercy Hospital, Winchester Grade School, and about 25 businesses.

Together, the North Roseburg and North Umpqua sewer systems consist of about 40 miles of laterals, interceptors and transmission lines which range in size from 6 to 36 inches in diameter. None of the lines are known to be combined with storm sewers, although there may be a few roof, foundation and work area drains connected to the system.

Treatment Facilities

There are presently two wastewater treatment facilities in the Roseburg urban area. The oldest plant is operated by the North Roseburg Sanitary District and is located on the north side of the South Umpqua River adjacent to Stewart Park. The facility provides secondary wastewater treatment for both the North Roseburg and North Umpqua Districts.

The treatment system is a two-stage, trickling filter plant, with anaerobic digestion of waste solids. Wastewater entering the plant is primarily of domestic origin.

The plant was constructed in two stages. The initial construction, completed in 1951, provided a treatment capacity to serve a population of approximately 5,000 persons. Additions were made to the plant in 1963, increasing treatment capacity to serve approximately 10,000 persons.

Primary treatment consists of a plant pump station, which discharges directly into a solids shredder basin channel and a primary clarifier, which has a capacity of I mgd. Secondary treatment includes three trickling filters. The present loading on the filters is near, or at, design capacity. Two 30-foot diameter secondary clarifiers with a combined capacity of 1 mgd are also utilized. The sludge from each of the secondary clarifiers is pumped to the digesters. The present sludge digestion system consists of two anaerobic digesters. Digested sludge is spread on sludge drying beds during the dry

weather months. The dried stabilized waste solids are then removed for use as a lawn and garden soil conditioner and fertilizer. During wet weather months, excess digester capacity permits storage of sludge.

During high flow periods, wastewater entering the treatment plant is regulated to eliminate hydraulic overload of the facility. The flow into plant is controlled by a manual gate valve which regulates the amount of wastewater entering the wet well of the plant's pump station. When the flow in the collection system exceeds 2 mgd, wastewater is allowed to back up in an 18-inch transmission line and a 36-inch transmission line. The transmission lines then remain surcharged until the flowrate decreases below 2 mgd. The level of the wastewater in the interceptor continues to rise during the period of time that the incoming flow exceeds 2 mgd. When the back-up reaches the elevation of the bypass it is discharged to the South Umpqua River through an overflow bypass structure located in "the old pump station" at the treatment plant site.

The North Roseburg treatment plant is not presently capable of producing an effluent quality to meet the new discharge standards for the Umpqua River Basin.

The Roseburg City wastewater treatment plant is similar in design to the North Roseburg facility and provides secondary treatment for domestic, commercial, and industrial wastes. It is a high rate, trickling filter plant with anaerobic digestion of waste solids. The plant was constructed in 1957 to serve a population of approximately 20,000.

The primary treatment facilities include the plant pump station, which discharges into a solids shredder basin channel. The 80-foot diameter primary clarifier has a capacity of 2.4 mgd.

Secondary treatment facilities also include a trickling filter which is operated as a high rate filter. The secondary clarifier has a capacity of 3.6 mgd. The removal of grit from sludge is accomplished by a Dorn-Clone grit separator mechanism. The present sludge digestion system consists of a primary and secondary digester. On the basis of reported yearly average solids, the system is approaching its design capacity. At

present, digested sludge is trucked from the plant for disposal on farmland. A 2,000 gallon truck is used for hauling and spreading the liquid sludge. While the Roseburg plant is currently meeting its discharge permit requirements, it is not presently capable of producing an effluent quality to meet the new discharge standards for the Umpqua River Basin.

Treatment Standards and Capacity

The Oregon State Department of Environmental Quality (DEQ) regulates construction and operation of wastewater treatment facilities, including the two plants in the Roseburg area. DEQ has established minimum quality standards for treated effluent discharge into the South Umpqua River. The standards are based on consideration of potential river use, stream flow volumes, proximity to urban development, other waste discharge sources on the river system, and projected future discharge levels.

Effluent quality is measured in terms of BOD5 (5-Day Biochemical Oxygen Demand is a measure of the oxygen consuming, carbonaceous organic material present in wastewater) and TSS (Total Suspended Solids contained in the discharged wastewater).

Both treatment plants were originally built to produce a discharge of 30 mg/l for BOD5 and TSS. Dry season discharge at 30 mg/] for BOD5 and TSS (30/30) until June 30, 1977. Effluent discharge standards were then raised to 20/20 until September 1, 1978. After this date, DEQ discharge permits for both treatment plants require that effluent discharged into the South Umpqua must not contain more than 10 mg/l of BOD5 or TSS (10/10) on a monthly average. This current standard also requires that discharged effluent for land application (irrigation), if initiated, should not exceed 20/20 on a monthly average basis. Current wet season effluent standards require that discharges into the South Umpqua must not exceed 20/20 on a monthly average.

In addition to the 10 mg/] BOD5 standard, DEQ has proposed that after 1983 the effluent BOD5 divided by a ratio of stream flow to effluent flow shall not exceed one. This BOD dilution formula standard has the potential to require a discharged effluent

quality of less than 10 mg/1 BOD5, due to the seasonally low flows of the South Umpqua River.

Of course, neither treatment plant is capable of meeting the stringent discharge standards now in effect. In order to ensure that the standards will eventually be met, DEQ has placed operating limits on the facilities. The regulations prevent remodeling or additions to the existing treatment facilities unless such construction would result in the plant's total discharge meeting current standards. Historically, this requirement has been viewed as one which eliminates all options other than construction of a new treatment plant, such as an activated sludge process facility.

In the interim, DEQ operating standards for the Roseburg plant include an average daily dry-weather flow limited to 3.6 million gallons per day and monthly BOD5 and TSS are limited to 900 pounds per day with a weekly average not to exceed 1,350 pounds per day or a daily maximum not to exceed 1,800 pounds. Based on these discharge limits, average monthly concentrations are 30 mg/l for both BOD5 and TSS (30/30). Weekly average BOD5 and TSS concentrations are not to exceed 45 mg/1 and daily maximum concentrations are not to exceed 60 mg/1.

Interim North Roseburg effluent requirements include average daily dry-weather flow limited to 1.3 mgd. Monthly BOD5 and TSS are limited to 325 pounds per day with a weekly average not to exceed 488 pounds per day or a daily maximum not to exceed 650 pounds.

Based on these limits, average monthly concentrations are limited to 30 mg/1 with a weekly average not to exceed 45 mg/l or a daily maximum not to exceed 60 mg/1.

In order to ensure that these standards are not exceeded, North Roseburg's operating and discharge permit, as granted on November 28, 1978, allocates a total of 380 additional equivalent dwelling unit (EDU) connections. No more than 120 EDU connections can be made in any twelve-month period. As of March, 1981, the District had 145 EDU connections remaining from the limit of 380.

The increased capacity of the North Roseburg system is primarily due to an intertie agreement which was entered into with the City of Roseburg in December of 1978. The agreement provides that a recently annexed area of the City will be served by North Roseburg sewer interceptor mains, and an equivalent amount of wastewater will be diverted from the District's system to the City plant for treatment; about 250,000 gallons per day. In addition, the agreement provides that the City will accept up to 150,000 gallons per day from other areas within the North Roseburg District, for a total of 400,000 gallons per day. At the time the intertie agreement was made, the City's treatment plant had a remaining capacity of 600,000 gallons per day, including the 400,000 gallons allocated to North Roseburg. This left the City with a remaining treatment capacity of 200,000 gallons per day which could be added to the system. Table F-6 shows how the remaining capacity of 600,000 gallons per day has been allocated on a quarterly basis since the intertie agreement was made.

As of June, 1981, 34 percent of the remaining 600,000 capacity of the City's plant was used up. Of the original 150,000 gpd allocated to areas within the North Roseburg District, 59,150 gpd or 39 percent remains. Of the 250,000 gpd allocated to areas inside the City (but outside North Roseburg S.D.), and served by North Roseburg S.D. 239,110 gpd, or 96 percent remains. The City has 50 percent, or 100,040 gpd of its original allocation of 200,000 gpd remaining.

TABLE F-6
ALLOCATION OF REMAINING TREATMENT CAPACITY
CITY OF ROSEBURG WASTEWATER TREATMENT FACILITY

	North Roseburg Sanitary District	City Area Served by North Roseburg via Intertie Agreement	City Area Served by City Sewer System
Original Remaining Capacity Allocation:	150,000 gpd	250,000 gpd	200,000 gpd (500 EDU*)
Allocation Used			
March, 1979	7,875	3,000	12,000
	142,125	247,000	188,000 (470 EDU)
June, 1979	11,450	1,500	13,600
	130,675	245,500	174,400 (436 EDU)
September, 1979	7,500	475	18,475
	123,175	245,025	155,925 (390 EDU)
December, 1979	13,225	525	3,950
	109,950	244,500	151,975 (380 EDU)
March, 1980	900	---	4,800
	109,050	244,500	147,175 (368 EDU)
June, 1980	1,050	---	10,275
	108,000	244,500	136,900 (342 EDU)
September, 1980	33,800	---	10,150
	74,200	244,500	126,750 (317 EDU)
December, 1980	7,925	390	9,200
	66,275	244,110	117,550 (294 EDU)
March, 1981	6,725	---	12,050
	57,850	244,110	105,500 (264 EDU)
June, 1981	1,300	5,000	5,460
	59,150	239,110	100,040 (250 EDU)

SOURCE: City of Roseburg Public Works Department, July 15, 1981.

*EDU: Equivalent Dwelling Units.

In 1979, there was 1,282 acres of vacant buildable land inside the City of Roseburg. It has been estimated that if all of this currently undeveloped land were to develop at the average city-wide density, it could create a demand for an added treatment capacity of 1.6 mgd*. This is about 1.4 mgd more than present plant capacity. Growth trends during the past five years suggests the Roseburg treatment plant will reach capacity in the next two to three years (1982-1983).

*Based on DEQ standard of One Equivalent Dwelling Unit = 400 gallon/day.

Limited sewage treatment capacity in the Roseburg urban area represents perhaps the single most important constraint to future growth. Three basic alternatives appear available at this time: (1) the existing treatment facilities could be modified to meet effluent standard or a new "regional" facility constructed to partially or wholly replace the existing plants; (2) effluent discharge standards could be reduced to allow the existing plants to operate above their design capacity; or, (3) limit or stop future urban area development and growth.

During the past decade, several studies have been conducted to analyze the urban area's sewage facilities and evaluate various alternatives to meet future needs.

In April, 1971, a report entitled Sewage Treatment for the City of Roseburg and North Roseburg Sanitary District was prepared by CH 2 M Hill. The report recommended that the City of Roseburg and North Roseburg Sanitary District adopt the long-range goal of joint treatment for the combined sewage flows. In September of 1974 the Douglas County Board of Commissioners agreed to finance a regional treatment concept study and engaged the services of CH 2 M Hill for the preparation of an environmental impact assessment required to secure federal funding assistance. In October of 1974, the City of Roseburg entered into a Regional Treatment Concept Agreement with North Roseburg and North Umpqua Sanitary Districts and Douglas County.

In March of 1977, CH 2 M Hill submitted its report containing the environmental impact assessment and a recommended course of action for funding and constructing a regional treatment facility. The report concluded that user rates would have to be increased in order for the local governments to finance their portion of the project cost.

While the two service districts were in a legal position to increase their rates. the user rate for the City of Roseburg was limited by the City charter. Any increase in city sewer rates would require an amendment to the charter by a vote of the citizens. On two separate occasions the charter amendment question was placed before the voters (February 14, 1976 and September 24, 1979). The charter amendment was defeated on both occasions.

Without the charter amendment to allow the city to raise the sewer user rate, the city was unable to continue as a party to the Regional Treatment Concept Agreement. In accordance with the provisions of the

On April 29, 1980, the Roseburg City Council commissioned the consulting firm of Brown and Caldwell to analyze the feasibility of converting the city's existing treatment plant into a regional facility. The report was submitted to the City Council on October 13, 1980, and concluded that the city's treatment plant could be expanded to serve as a regional facility. The report contains preliminary findings which suggest conversion of the existing plant could be accomplished at a lower total cost than construction of a new facility at another location.

The Brown and Caldwell study was accepted by the Roseburg City Council, but never formally submitted to DEQ or EPA, due to uncertainty in federal funding programs and the continuing problem of the Charter limitation on fees. The City and the two Districts attempted to enter into another Regional Treatment Agreement which would have called for City participation at such time as the Charter limitation was lifted, but this agreement was never ratified due to potential legal complication.

Due to lack of an agreement and the inability of the City to charge a 'fair and equitable' user charge, EPA dropped the ranking of the Roseburg urban area from 3rd to 33rd in the State of Oregon.

In March of 1981, the City and the two Districts initiated joint efforts once again, by forming the Roseburg Regional Wastewater Facilities Advisory Committee. This committee. working with its associated Citizen Involvement Committee, re-evaluated regional sewer facility alternatives and engaged CH2M Hill to update the facilities plan and adjust it to conform to the proposed Urban Growth Boundary as the potential service area. The Committee also evaluated a financing plan and alternatives of a management plan. The Advisory Committee's formal recommendation to the Boards of the two Districts and to the City Council on April 8, 1982, was to form a Sanitary Authority whose boundaries conformed to the UGB and which would assume the responsibility for providing sanitary service from the two Districts and the City. Also recommended was the adoption of the facilities plan recommending the expansion and updating of the existing City treatment plant. The City Council and the two District Boards adopted the Committee's recommendation in May of 1982.

The Roseburg Urban Sanitary Authority was approved by the electorate on March 29, 1983. Since its formation, the Authority has hired a manager, adopted a budget for fiscal year 1983-84, and is scheduled to assume wastewater treatment operation July 1, 1983. It is also proceeding with its schedule calling for a bond election for treatment plan expansion and updating in September of 1983. Within that timeframe, it will be formally resubmitting an updated facilities plan to DEQ and EPA for federal funding eligibility, which may reduce the local funds necessary.

Solid Waste

The collection and disposal of solid waste is a service essential to the health, safety, appearance and proper function of the Roseburg urban area. Society in general is facing the growing problem of solid waste disposal. National figures indicate an alarming per capita increase in waste generation during the past sixty years. In 1920 the per capita average was 2.75 pounds of solid waste produced per day; in 1970 the per capita amount had increased to five pounds per day; and by 1979 the average was up to 8.41 pounds per day per capita. This translates to about eight cubic yards, or around 3,000 pounds of solid waste per person per year.

Solid waste takes many forms and is generated by a great number of sources. By far the largest generator of solid waste is the domestic household. Commercial and industrial sources also account for a significant amount of the total volume. Wastes include everything from newspaper and tin cans to tires and appliances; lawn clippings to animal carcasses; street sweeping to bed springs. Septic pumping, demolition and building refuse, and junked auto bodies add further to the solid waste burden. The increasing volumes of solid wastes have significant adverse consequences for the urban area in terms of environmental quality, economy, natural resources, aesthetics, and administrative problems.

Management

Solid waste management in the Roseburg urban area is provided by Douglas County. The current solid waste management program was developed in the Solid Waste Management Stu@ prepared by the Douglas County Engineer's office in 1973, although the County had been operating under a solid waste ordinance administered by the County Health Department since 1970. The County Health Department still administers the ordinance, but responsibilities for actual maintenance and operation now lie with the Public Works Department.

The City of Roseburg also has a solid waste ordinance which it administers. The ordinance primarily establishes regulations for the collection and hauling of garbage

within the city limits; establishing a collection franchise and setting service charges. Although the City does not have its own sanitary landfill site, the ordinance does specify that all solid waste collected within the City shall only be disposed of at the County-operated facility.

The Oregon Department of Environmental Quality (DEQ) is responsible for licensing the operation of sanitary landfills and other waste disposal sites. DEQ establishes and enforces operating rules and monitors both the material going into the disposal site as well as the quality of water runoff and seepage. In addition, DEQ provides technical assistance with solid waste management planning, including the location of suitable future landfill sites, recycling programs, and financial assistance.

Roseburg Landfill

Douglas County's solid waste management program utilizes the regional or centralized landfill site concept. That is, solid waste is collected at various transfer sites throughout the county and then transported for ultimate disposal at the central landfill. The landfill serving all of Douglas County outside the coastal area is located at the west end of McClain Avenue about a mile southwest of the present city limits. (Described specifically as: Lots 7 & 8, Plat "B" of Umpqua Park Addition.) The site contains 91 acres.

The Roseburg landfill accepts household refuse, tires, car bodies, demolition and building waste, dead animals and septic pumpings. The solid waste is hauled from transfer sites by county trucks. Franchise collectors and individuals also contribute significant quantities which are compacted and covered daily.

According to 1980 County Public Works records, the Roseburg landfill accepts approximately 457,200 cubic yards of solid waste annually. The landfill has an estimated life of approximately 16 years with continued current landfill practices. The volume of solid waste has been increasing at a rate of approximately 2% per year. This slight increase presents no problem with transporting or processing; however, the capacity of the site will, rapidly be exhausted without alternate methods of disposal.

The Roseburg landfill receives half of its total annual solid waste through the transfer site system. Transfer sites are located at Tiller, Canyonville, Myrtle Creek, Camas Valley, Lookingglass, Glide, Oakland, Yoncalia and Elkton. Table F-7 shows the estimated amount of solid waste placed in the Roseburg landfill from sources around Douglas County.

TABLE F-7
ANNUAL SOLID WASTE DISPOSAL
ROSEBURG LANDFILL (1980)

SOURCE	CUBIC YARDS	TONS
Camas Valley	8,280	910
Canyonville	24,960	2,745
Elkton	6,840	752
Glendale	11,460	1,260
Glide	24,840	2,732
Lookingglass	22,44o	2,468
Myrtle Creek	41,760	4,594
Oakland	45,240	4,977
Roseburg	200,000	22,002
Tiller	4,320	475
Yoncalla	24,900	2,739
Other Sources	42,160	4,638
TOTAL	457,200	50,292

SOURCE: Solid Waste In Douglas County, Summary Report
Douglas County Public Works Department, 1981.

There are several approved industrial waste sites within Douglas County. These sites are approved and monitored by DEQ specifically for industrial waste disposal. The majority of these sites are for the disposal of such materials as cinders, ashes, mill yard cleanup, wood, boiler flash, log pond dredging, small wood chunks, dirt and rock. None of the industrial waste disposal sites are located within the Roseburg urban area. There are no approved hazardous material disposal sites located within the urban area, or within Douglas County for that matter. However, disposal of small quantities of some hazardous wastes at the Roseburg landfill under specified conditions is allowed by DEQ. The disposal site can accept limited amounts of some types of agricultural pesticides, but larger quantities of hazardous or toxic material must be transported to an approved DEQ hazardous waste disposal site.

Solid Waste Problems

As noted above, society is producing solid waste at an increasing rate and the Roseburg landfill is not expected to last through the decade at the present rate of solid waste generation.

There are two obvious solutions to the problem; (1) develop a new sanitary landfill at another location, or (2) reduce the amount of material being placed in the existing landfill.

The establishment of new landfills is no easy matter. Both environmental and social concerns make the siting of new landfills difficult. Solid waste disposal sites have traditionally been thought of as breeding grounds for insects, rats and disease; however, modern sanitary landfill techniques have significantly reduced these undesirable conditions. Water pollution is also a problem. When rain water and surface runoff filter through a landfill it becomes contaminated with minerals, chemicals and other undesirable substances and can result in stream and ground water pollution. Landfills must be located in areas where natural geological and soil. conditions reduce the possibility of water pollution to an acceptable level. Local residents resist the establishment of new landfill sites in their area. The transport of solid waste to a central

landfill results in high traffic volumes; particularly heavy truck traffic. The transport of household garbage to landfill by individuals also causes problems in the area; most notably the scattering of debris along the roadway. New landfill sites must be located in areas where the operation will have minimal impact on local residents.

Solid Waste Alternatives

Once a landfill is established, it should be utilized in the most efficient manner possible to extend its period of usefulness.

There are several options available to reduce the volume of material entering the landfill. A commonly applied technique for volume reduction, although not applied locally, is mechanical shredding. Shredding results in a more homogeneous solid waste, reducing total volume by as much as 50% (allowing twice as much material to be placed in the landfill). Mechanical compacters which compress the waste material (either pre-shredded or in bulk) into bundles or bales can also greatly reduce the amount of space required to dispose of solid waste.

Resource recovery is another option for greatly reducing the amount of material entering the disposal site. Resource recovery is a general concept referring to any productive use of what would otherwise be waste material requiring disposal. The concept includes recycling, material conversion and energy recovery. Resource recovery from mixed municipal refuse involves the centralized processing of collected raw material to extract useful materials and energy. A resource recovery system requires a large and constant supply of material. It also requires a market for the end product. Most recovery systems include separation of ferrous metals. Some systems also recover nonferrous materials and glass.

The most efficient systems are designed to recover large amounts of the incoming waste, leaving no more than 25 percent, by weight, for landfill disposal.

Energy is derived from sorted combustible materials which form a fuel used in boilers to produce steam either for industrial production or to produce electricity. This

fuel can also be sold to supplement existing boilers. The term used for this fuel is "Refuse Derived Fuel" (RDF).

In 1974 a study was done for the South Coast area of Oregon to explore the feasibility of a resource recovery plant. The findings were that an energy recovery plant in the Coos Bay-North Bend area producing either processed fuel or steam for sale is technically and economically feasible. Such a feasibility study is currently being undertaken by the Douglas County Public Works Department. Preliminary findings are scheduled for publication in late 1981.

While done on a very limited basis, the primary means of recovery of materials in the Roseburg urban area at present, is through source separation. Source separation is the setting aside of recyclables and waste materials at their point of generation for segregated collection and transport to specialized processing sites. Transportation can be provided either by residents, city collection, volunteer recycling or service organizations., A wide variety of materials can be utilized in this manner including glass, metal, tires, appliances and lubricating oil.

Recycling bins or sheds are located near several dumpsite box sites throughout the County which are serviced by Sunrise Enterprises and the Lighthouse Mission of God, which market the materials to recyclers. There is also a used lubricating oil storage tank at the Roseburg landfill as well as at several transfer sites, automobile dealers, and service stations. It is estimated that 1,176 tons of solid waste were recovered-during 1979; however, this is only a small percentage of the total potential for resource recovery.

FIRE PROTECTION

Fire Protection service in the Roseburg urban area is provided by the Roseburg Fire Department and Douglas County Fire District No. 2 (DCFD 2). Although the two departments have mutual aid agreements, as discussed below, DCFD 2 provides service to the unincorporated urban area around the city, while the City department generally limits its protection service to the incorporated area.

The City Fire Department operates from three stations within the city. The central station is located in the downtown area at the intersection of Rose and Lane Streets. North Roseburg is served by the station on Garden Valley Boulevard near the V.A. Hospital entrance. The station on West Harvard at Pilger Street provides protection for the west Roseburg area. Each station is situated so as to have a response time to most parts of the city under three minutes.

During the 1979-80 fiscal year the City Fire Department was staffed by 33 full-time employees. Table F-8 provides a breakdown of Fire Department manpower. In addition, the Department has a force of 26 non-paid volunteers. Table F-8 also provides a listing of the Department's heavy equipment and the locations of the three stations.

TABLE F-8
FIRE PROTECTION FACILITIES, EQUIPMENT AND MANPOWER
CITY OF ROSEBURG FIRE DEPARTMENT
1980

FACILITIES

Station No. 1:	744 S.E. Lane Street
Station No. 2:	2177 West Harvard Avenue
Station No. 3:	801 N.W. Garden Valley Boulevard

EQUIPMENT

3	-	First Line Pumpers - 1000 GPM
3	-	Reserve Pumpers - 1000 GPM
1	-	Snorkel Truck - 85 foot
1	-	Salvage Truck
1	-	Foam Truck - Pickup Chassis
1	-	Four-Wheel Drive Pickup for Grass and Brush Fires
2	-	Pickups - Fire Marshal and Fire Inspector
1	-	Sedan - Chief's Car

MANPOWER

1	-	Chief
1	-	Fire Marshal
1	-	Fire Inspector
1	-	Safety Inspector
1	-	Secretary
26	-	Non-paid Volunteers
3	-	Battalion Chiefs
6	-	Captains
9	-	Driver Engineers
7	-	Fire Fighters
3	-	Firemen

The City of Roseburg currently has a fire rating of Class 5. Fire ratings are based on the level of service or protection provided and are used to establish fire insurance rates for property owners. The last system-wide evaluation was conducted by the Insurance Service Office of Oregon (I.S.O.) in 1977. The major area of deficiency was found to be the City's water system, including storage capacity, alternate transmission routes, and fire hydrants. Water system deficiencies are discussed in the Water System section of this Element. However, it should be pointed out that since the last I.S.O. evaluation, the City's water system has been upgraded considerably. The Roberts

Creek Emergency intertie has been completed, providing the City an alternate water source. Construction has begun on a 4 million gallon reservoir, which when completed, will double the systems total storage capacity. The Fire Department is also aggressively upgrading hydrant protection. During the 1979-80 fiscal year alone, about 70 fire hydrants were added to the system.

Douglas County Fire District No. 2 is a special service district which provides fire protection to the unincorporated portion of the Roseburg urban area. While the district has fire stations which serve the urban area, none are actually located within the urbanized area. Until recently, the district did have a station inside the City on Garden Valley Boulevard, but this facility was replaced by two new stations; one at the intersection of Garden Valley Road and De] Rio Road about 31 miles northwest of Roseburg; the other on Buckhorn Road at Dixonville, about 31 miles east of the City. A third station is located on Hwy. 99 near its intersection with College Road north of Winchester. Further away from the Roseburg urban area, District No. 2 also has stations in Melrose and Green.

Firefighting manpower at each station is one full-time employee per 24-hour shift, except at the Dixonville stations, where two full-time firefighters are on duty each 24-hour shift.

All together, the district employs about 30 full-time personnel in addition to a volunteer force of about 75. Table F-9 lists the heavy equipment based at each of the district's fire stations. A breakdown of district manpower is not available.

TABLE F-9
FIRE PROTECTION FACILITIES AND EQUIPMENT
DOUGLAS COUNTY FIRE DISTRICT NO. 2
1980

FACILITY	EQUIPMENT
Station No. 1 - Dixonville	1 Small Tanker, I Large Tanker, 1 Brush Truck, I Engine Company
Station No. 2 - Green	2 Engine Companies, I Brush Truck
Station No. 3 - Melrose	1 Engine Company, I Small Tanker, 1 Large Tanker, I Brush Truck
Station No. 4 - Winchester	1 Aerial Ladder Truck, I Brush Truck 1 Large Tanker, I Engine Company
Station No. 5 - Garden Valley	1 Engine Company, 1 Large Tanker, 1 Small Tanker, I Brush Truck

Fire ratings vary throughout the district, depending primarily on the availability of fire hydrants and distance from a station. Most within the urbanized area, where public water (hydrants) is available, are rated Class 5. Areas without fire hydrants, but within five miles of a station are Class 8 and areas further away are Class 9. With the recent establishment of the Garden Valley and Dixonville stations, few areas of the district are more than five miles from a station.

The City of Roseburg and Fire District No. 2 have a long-standing mutual aid agreement between them. The agreement provides that, upon request, the district will provide assistance to the City Fire Department and the City will assist the district. City ordinance prohibits the Fire Department from leaving the City limits to fight fire except on a mutual aid call.

Whenever the City annexes territory such territory is subsequently withdrawn from District No. 2. State law (ORS 222-524 to 222-530) provides that upon withdrawal of territory from the district, the City shall assume responsibility for any bonded indebtedness of the annexed territory as well as any operating tax liability of the annexed territory for the current fiscal year. The City is then obligated to pay to the

district the amount of revenue it would have otherwise received if the territory had not been withdrawn from the district.

At the same time, the district must transfer assets to the City which is assuming fire protection responsibility for the newly annexed territory. Such division or transfer of district assets is based on a formula which gives consideration to the assessed valuation of the whole district and the part withdrawn, the types of assets, and their location and intended use. However, such division of assets shall not cause the district to have a lower level of fire protection or result in a less favorable fire insurance grade classification.

In actual practice the difference between the City's assumption of debt and the districts division of assets is done as a single action and any difference can be made through a transfer of money or an equal value of equipment or facilities.

While future growth of the Roseburg urban area will require an increasing level of fire protection service, continued cooperation between the City and Douglas County Fire District No. 2 will help to assure that an adequate level of service will be provided.

POLICE SERVICES

The Roseburg urban area is served by three law enforcement agencies. The City police department is the primary law enforcement agency within the city proper, while most law enforcement service in the unincorporated urban area is provided by the Douglas County Sheriff's Department. Roseburg is also located in District No. 3 of the Oregon State Police.

The City police force is presently made up of 30 sworn law enforcement officers and 11 civilian employees. Table L-10 provides a listing of current (1980) police department manpower. It is not possible to identify urban area manpower commitments by the Sheriff's Department and State Police since these agencies operate on a county-wide or district wide basis.

TABLE F-10
LAW ENFORCEMENT MANPOWER
CITY OF ROSEBURG POLICE DEPARTMENT
1980

CRIMINAL INVESTIGATION AND PATROL	PERSONNEL
Police Chief	1
Secretary	1
Lieutenants	2
Sergeants	4
Corporals	5
Patrolmen	18
COMMUNICATIONS	**PERSONNEL**
Dispatchers (Police & Fire)	6
Records Clerk	1
PARKING CONTROL	**PERSONNEL**
Supervisor (Meter Mechanic)	1
Parking Enforcement Officer	1
Part-time Parking Officer	1
ANIMAL CONTROL PERSONNEL	
Part-time Officer	1

Both the City and County utilize the "roving patrol concept in the urban area, maximizing the benefits of flexibility. Within the City, the Police Department usually has four patrols plus one sergeant on the streets most of the day. Patrols are usually reduced during early morning hours. Flexibility in city-wide patrolling allows periodic concentration on problem areas. The County usually has two patrols on duty in the urban area; one to the north of the city and one to the south. Again, County Sheriff's patrols are kept flexible to allow concentration on specific areas as the need arises.

Unlike the City Fire Department, the Police Department does not have formal mutual assistance agreements with other law enforcement agencies. Nevertheless, the City Police Chief has stated that all law enforcement agencies in the urban area have a high degree of mutual cooperation and provide assistance when called upon.

The City has a 20-person capacity jail facility located at the municipal building. The City jail's purpose is to confine adult males arrested and held for City Ordinance violations. The average occupancy is six to eight prisoners. All women and juveniles to be held, as well as all other persons arrested and held for State offenses (usually felonies), are lodged in the County jail facility. The City has an informal agreement with Douglas County for housing prisoners; the current rate is $10.00 a day. Additional expenses, such as medical care, revert to the City. Transportation of City prisoners held in the County facility is the responsibility of the City.

The City also has an informal agreement with the District Attorney, State Police and Sheriff's Office referred to as the Homicide Team. While the District Attorney has sole jurisdiction in homicide cases, the various law enforcement agencies contribute manpower and equipment to the team as requested. The law enforcement agency within whose jurisdiction the crime was committed becomes the primary investigative body, with the other members of the team assisting.

The City Police Department has no set policy regarding adjustments in force strength to reflect increases in both population and city size. Rather, the approach used is one of flexible anticipation and response, of which a key element is coordination with

other City departments regarding notice of annexations, large-scale changes in land use. or areas of special concern.

In addition to enforcement activities, the City Police Department engages in an active crime prevention program. The major target of the program is burglary, which is the fastest growing crime in the city.

In order to assess the extent of crime in the city, as well as the effectiveness of law enforcement and crime prevention, the Police Department has participated in two victimization surveys conducted by the Oregon Law Enforcement Council; one in 1977 and another in 1979. Only results from the 1977 survey are currently available.

While the results of the 1979 survey are required to determine changes in crime and law enforcement effectiveness since 1977, the results of the first survey are in themselves enlightening.

Of the 520 city households surveyed, nearly 70 percent of the respondents were aware of the Police Department's crime prevention program. Nearly 90 percent of the respondents indicated that they felt secure from criminal victimization. At the same time, the survey revealed that over half of the surveyed crimes and attempted crimes were not even reported to the police. However, the victimization rates for the crimes of burglary, larceny and motor vehicle theft were substantially lower in Roseburg than they are in Portland and the nation as a whole. The most frequently occurring crimes against the city's commercial establishments in Roseburg are bad checks, shoplifting and vandalism. However, in terms of property loss, the most costly commercial crime was employee theft.

Again, it will be necessary to review the findings of the 1979 survey before any trend in the City's crime rate, or the impact of the Police Departments crime prevention program, can be determined.

Historically, the City's philosophy toward law enforcement has been one of flexibility; responding to conditions as they develop. However, it is a truism that urban

growth is accompanied by a corresponding increase in criminal activity. As the Roseburg urban area continues to grow, the current level of the community's perceived security will probably decrease; resulting in a demand for a higher level of law enforcement at the expense of flexibility. For it is also a truism that as a police force grows larger and subsequently raises its level of sophistication, the degree of flexibility it enjoys suffers a corresponding decrease.

HEALTH SERVICES AND FACILITIES

The availability of quality health care facilities and services in Roseburg has been a significant factor in attracting people to the urban area. In addition to a wide range of services available to meet the health care needs of the area's population, there are three major medical facilities located in the Roseburg area; Douglas Community Hospital, Mercy Medical Center and the United States Veteran's Administration Hospital. All three facilities are acute care hospitals with a wide range of services. The Veteran's Administration Hospital limits its facilities, however, to qualified veterans and their dependents. The V.A. facility has a bed capacity of 417, of which 75 are nursing home beds. Though in previous years it was considered to be a neuropsychiatric hospital, and still does have considerably more than normal numbers of patients in this category, it does offer full acute care in-patient medical service to the qualified group. Mercy Medical Center is currently licensed for III beds and Douglas Community is licensed for 133 beds. Both Douglas Community Hospital and Mercy Medical Center are qualified under the Social Security Administration for the care of "Medicare" patients. A 1980 report published by the Western Oregon Health Systems Agency calculates that Douglas County appears to be somewhat over-bedded in proportion to the service area population. According to the agency's calculations, there will be 92 excess beds in Douglas County in 1985, when compared to current licensed capacity. The excess capacity is attributed to the Roseburg area hospitals as well as to other hospitals in the county.

Hospital bed need projections are based on the total patient-days for each hospital during the current year. The total service area population is then divided by the number of patient-days and the current use rate is derived. Bed need projections for future years are correlated with population projections for the service area.

In addition to the three major hospitals, construction has begun on a facility which will provide radiation treatment for cancer patients. The project is sponsored by the Community Cancer Foundation; a non-profit, community based organization. The facility will use a linear accelerator to generate radiation used by a resident oncologist for radiation therapy. Construction of the new facility is scheduled to be completed by the fall of 1980. When established, the cancer treatment center, as well as the other

facilities and services offered by the medical health care facilities in the urban area, will have identified and satisfied all of the services which the Douglas County Health Plan has described as being capable of being provided to the community.

There are four nursing homes in the urban area: Douglas County Nursing Home operated by Douglas County, the Veteran's Administration Hospital Nursing Unit and two private facilities, Grandview and Rosehaven. Douglas County recently completed an extensive remodel of the Douglas County Nursing Home and has provided for the first time, skilled nursing beds eligible for Social Security Administration reimbursement under the Medicare Program in Douglas County. This construction was completed in 1979 and the nursing home is not yet operating at its 116 resident capacity, particularly the skilled nursing beds. Both private facilities are usually always at or near capacity.

Douglas County operates a large, well-staffed public health department. Although service is provided throughout the county, the Health Department is based at the County Health and Social Services Center in the Old Mercy Hospital building in Roseburg. The department's primary focus is on prevention of disease and promotion of the physical and mental health of the county's residents. Costs vary; some services are free and others are based on a sliding fee scale according to ability to pay. Community health nurses provide immunizations, physical assessments, health screening, health education, counseling and referrals. Other services provided include: Communicable Disease Control Program, Chronic Disease Program, Dental Health Clinic, Family Planning Clinic, Venereal Disease Clinic, Public Health Education Program and Medical Examiner's Office. The County also operates a Family Services Clinic which provides services to persons with mental and/or emotional disorders and those who have life problems. This includes child guidance, marital counseling and family counseling. The Clinic also performs testing, diagnosis and evaluation of clients.

The public health needs of the area are also being met by the Medical Assistance Program of the Adult and Family Services Division of the State of Oregon. Under this program, commonly known as "Medicaid," eligible residents are provided basic payment of medical expenses when they are excessive to a family. The theory behind the program is that only a percentage of any family's income should go for

medical expenses. In the case of low income families when the medical expenses become a burden, they may receive assistance.

Senior citizens in the community are also eligible for "Medicare" to help pay their medical expenses. Under this program, payment of many medical expenses are picked up by the federal government. Although there is no age limit to the "Medicaid" program, only those over sixty-two are eligible for "Medicare" payments.

While this section of the element has identified a multitude of programs that are helping to meet the health needs of the Roseburg urban area's citizens, any attempt to evaluate how well they are meeting those needs is beyond the scope of this element. Local health planning is the responsibility of the Douglas County Comprehensive Health Planning Council. In 1975, the Council adopted the Douglas County Health Plan. The Plan describes the status of local health services, and provides for their future development to 1985. As previously mentioned, the full range of medical services identified in the Health Plan as being needed will be available to Douglas County residents once the new cancer treatment center is operational. The Health Plan will be reviewed periodically to ensure an appropriate level of health care services and facilities is maintained.

EMERGENCY SERVICES

Ambulance

There are three ambulance service operations in the urban area; Community One, which operates out of Douglas Community Hospital; Medic-4, which operates out of Mercy Medical Center; and, Billy Mohr Ambulance, an independent service. Al] three operations provide fully equipped transport service staffed by paramedical personnel trained in coronary care, respiratory therapy and trauma. Additionally, the two hospitals operate Critical Care ambulances which are somewhat unique to the Roseburg area. Ambulance service is regulated by the Douglas County Ambulance Ordinance. Administration and enforcement of the ordinance is the responsibility of the Sheriff's Office. Emergency medical service is also provided by both the City Fire Department and Rural Fire District No. 2. Al] paid firemen are trained Emergency Medical Technicians (EMT). In 1979 about 70 percent of the emergency runs made by the two fire departments were for EMT assistance.

Emergency Operation Plans

Both Douglas County and the City of Roseburg have developed emergency operation plans. These plans outline operational procedures to be employed in the event of a large scale emergency or disaster. The basic concept of the plans is to facilitate the orderly utilization of all available emergency resources to deal with the effects of a disaster. Both the City and County plans are coordinated with the Emergency Service Division of the State of Oregon.

The Sheriff's Office has equipment on hand to establish a 200 bed mobile hospital or emergency shelter. The Sheriff's Office also operates a Search and Rescue Division which participates in search and rescue operations involving lost persons, drowning, downed aircraft, automobile accidents, and recovery of persons stranded during times of flooding, snow storms, etc.

911 System

As of July 1, 1980, Central Douglas County, including the entire Roseburg urban area, has had an operational 911 emergency call system. Separate phone numbers for fire, police and medical emergencies have been replaced by a single number--911.

Calls to the 911 system go to the Douglas County Sheriff's dispatch center and there connected to the appropriate emergency service agency. The agency then dispatches its equipment and personnel to the emergency scene.

The system features instant callback capability which allows the dispatch center to locate the caller even if he has hung up or been disconnected. Cost of installation and maintenance of the 911 system has been financed by Douglas County. Development of the system was closely coordinated with Pacific Northwest Bell which provides telephone service throughout the Roseburg urban area.

EDUCATION

The Roseburg urban area is located within Roseburg School District No. 4. Ten of the district's 13 schools lie within the urban area and consist of seven elementary, two junior high and one senior high. The school system operates on grade separations of 1-6, 7-9 and 10-12. The district does not presently operate a kindergarten although there are numerous private kindergartens located throughout the urban area.

Enrollment figures for the last five years (1975-1979) show that District No. 4 schools within the urban area experienced an overall decline in the student population. However, it should be noted that total enrollment figures for district schools within the urban area during the 1979-80 school year experienced a slight increase and appear to have stabilized. Projecting into the near future, the school district expects the student population to remain relatively stable although a gradual increase is anticipated. At present, the district has the capacity to accommodate any normal increase in student population.

Table F-11 illustrates the total student enrollment for each District No. 4 school within the urban area and the percentage of increase or decrease in the student population from 1975 through 1979. The enrollment figures were obtained from enrollment reports prepared during the latter part of September for each of the five years given.

TABLE F-11
ROSEBURG URBAN AREA
SCHOOL ENROLLMENT FIGURES FOR
SCHOOL DISTRICT NO. 4

SCHOOL	1975	1976	1977	1978	1979
Eastwood Elementary	243	230	246	240	229
Fir Grove Elementary	252	241	221	276	274
Fullerton IV Elementary	870	375	354	333	339
Hucrest Elementary	416	407	384	390	421
Riverside Elementary	360	331	330	337	321
Rose Elementary	278	283	294	294	258
Winchester Elementary	474	457	498	481	488
John C. Fremont Junior High	901	905	828	828	814
Joseph Lane Junior High	899	862	839	849	876
Roseburg Senior High	1,615	1,676	1,639	1,548	1,562
TOTALS	5,808	5,767	5,633	5,576	5,582
Other District No. 4 Schools (Melrose, Green & Sunnyslope)	893	859	886	908	901
TOTAL District No. 4 Enrollment	6,701	6,626	6,519	6,484	6,483

PERCENT OF TOTAL URBAN AREA YEARLY ENROLLMENT
DECLINE OR INCREASE

1975-1976	- Less than 1% Decline
1976-1977	- Approximately 2.3% Decline
1977-1978	- Approximately 1% Decline
1978-1979	- Less than 1% Increase

SOURCE: Roseburg School District No. 4

It should be noted that fluctuation in enrollment figures for elementary and junior high schools may occur as a result of alterations in school attendance boundaries. Alterations in attendance boundaries will usually occur when overcrowding is experienced at a particular school.

Table F-12 summarizes important data pertaining to Roseburg District No. 4 schools within the urban area. The district does not assign student capacities to its

various schools. Instead, it conducts an on-going assessment of student capacity for schools within the district and various formulas are used that take into account the needs of schools and subject matter.

Twenty-five students is considered to be the maximum number of students for classroom instruction. However, this number does not apply to all types of classes or grade levels and is therefore somewhat arbitrary and subject to fluctuation. This situation creates problems in trying to assign student capacities for district schools.

TABLE F-12
ROSEBURG SCHOOL DISTRICT NO. 4
SCHOOLS WITHIN THE URBAN AREA

	APPROXIMATE SIZE OF SCHOOL SITE	GRADES TAUGHT	SEPTEMBER ENROLLMENT FIGURES	NUMBER OF CLASSROOMS
Eastwood	32.0	1-6	229	12
Fir Grove	6.9	1-6	274	13
Fullerton IV	9.7	1-6	339	18
Hucrest	11.7	1-6	421	18
Riverside	7.0	1-6	321	18
Rose	3.5	1-6	258	13
Winchester	10.0	1-6	488	22
John C. Fremont	20.0	7-9	814	35
Joseph Lane	22.0	7-9	876	38
Roseburg Senior High	20.0	10-12	1,562	86

SOURCE: Roseburg School District No. 4

Private Schools

There are several private schools located within the Roseburg urban area. The majority of these are kindergartens and preschools, however, there are also four parochial schools. Table F-13 summarizes information concerning church affiliated schools. It should be noted that both the Nazarene School and the Roseburg Christian School have only been operating since 1974 and 1975 respectively, and therefore the dramatic increase in student enrollment witnessed in the figures below should not be interpreted as a probable future trend.

TABLE F-13
ROSEBURG URBAN AREA
PRIVATE SCHOOLS

SCHOOL	ENROLLMENT 1975-76	ENROLLMENT 1979-80	GRADES TAUGHT
Nazarene School of Roseburg	90	163	1-12
Roseburg Christian School	14	157	K-12
Roseburg Junior Academy	95	129	1-9
St. Joseph's Catholic School	132*	175	K-6

*Does not include kindergarten enrollment

Future School Needs

In 1975, the District No. 4 School Board appointed a citizen's committee to inspect facilities and properties owned by the District, to assess the needs of each and to submit a report to the Board concerning the needs projected to exist in the district during the next ten years (1976-1986). The recommendations detailed in this report have largely been followed up to the present. The district uses the Citizen's Committee Report as a guideline in making deliberations. Some modification to these earlier recommendations has occurred as a result of the "Market Study, Land Use Study and Financial Analysis" prepared by R. J. Frank and Associates. This particular study focused primarily on three parcels owned by the district: the current high school; Riverside Elementary; and the undeveloped Stewart Parkway site.

This study recommended to the school board that the existing high school be retained and that "as they become available, residences along Bellows, Alva, Birch and

Finlay (to the north and west of the high school) should be purchased." With regard to the Stewart Parkway site, the study recommends that the "site should be sold either in total or in part depending upon the District's decision on the current high school. If the high school is retained at its current location (and no new junior high or other school is needed), the entire parcel should be sold. If the high school (or any other school) is relocated to Stewart Parkway, the remainder of the site should be sold. No sale of any of the Stewart Parkway site is recommended until sewer service is available."

After examining the Riverside School site, the study noted that "the decision to retain Riverside as a school can be made, on a financial basis, by comparing the revenue which can be generated by the sale of the existing facility and the cost of construction of a substitute facility."

Following completion of the R. J. Frank and Associates study, a citizen's committee was formed to address the question of whether to remodel the existing senior high school or build a new one on another site. Using the findings of this study, the committee recommended to the school board that the existing school be remodeled. The board has since hired an architect to plan the remodeling.

In addition to those sites currently being utilized as schools, the district also owns several other properties within the urban area: the 10-acre Newton Creek site, located south of Newton Creek Road; the 60-acre South Engle site, located adjacent to Stewart Parkway; the 18-acre Charter Oaks site, located south of Calkins Road; the 11-acre Garden Valley site; the 10-acre Riversdale site, located at the intersection of Garden Valley Road and Curry Road; and the Maintenance/Warehouse/Administration site (4.8 acres).

The Citizen's Committee Report recommended in 1976 that the Newton Creek site should be retained for consideration as a potential location for new construction of an elementary school. This committee also recommended that the Charter Oaks site and the Riversdale site be considered for sale or trade. The South Engle site, also known as the Stewart Parkway site, was studied in greater detail in the more recent R.

J. Frank and Associates study. The recommendations of this study have already been discussed.

The school board has formed a Building and Sites Committee composed of school board members who have expertise in related areas. This Committee meets to consider and make recommendations to the board on anything related to district property, from the selection of architects to buying and selling property and selecting colors for a building.

Special Programs

Special programs for students in Roseburg School District No. 4 have been developed and implemented at a rapid rate during the past few years. These programs are numerous and varied and are briefly discussed below.

Currently, classes for the educable and trainable mentally handicapped exist within regular school settings for all eligible school age people. In addition, programs for the emotionally disturbed are provided at all grade levels.

Roseburg has the distinction of being the first school district in the Northwest to implement an Extreme Communication Disorders (ECD) program for autistic children. The ECD class provides a highly structured individualized program for those students who have exhibited severe communication and behavior disorders from birth or early childhood.

The Learning Disabilities Program provides instructional programs for those students who have difficulty in maintaining the academic achievement levels normally expected of their age and grade placement. A learning disabilities teacher is assigned to every elementary school.

The Adjustive Education Program is designed to benefit those students whose behaviors are such that they significantly distract or interfere with their educational progress, or that of other students in the school setting.

The Home Instruction Program is a tutorial service provided for students who are hospitalized or homebound, unable to attend school, but are still able to receive instruction in regular school subjects.

The lndo-chinese Refugee Assistance Program is a federally funded grant tutorial program designed to assist lndo-chinese refugee children of school age in developing English language skills. The goal of this program is to enable these students to participate in school activities at an acceptable level.

The Multiple Handicapped Program is a county-wide service which began in 1973. All students who require placement in the program are bused to the site of instruction, and transportation is provided through the Douglas County Intermediate Education District (IED). Students with multiple handicaps are currently served at two sites. The school age children attend Fir Grove Elementary School and preschool students attend a preschool housed at the YMCA. The goal of the program is for the children to develop physical, academic and social skill levels to the degree that they may be mainstreamed or can function within society.

Speech and hearing therapy is available to Roseburg area students through the Douglas County Intermediate Education District ([ED).

The Resource and Media Center is housed in the office of Special Programs and serves teachers of special students. The center contains a variety of instructional materials and equipment as well as a catalog file of current educational material, professional journals and literature.

The Student Evaluation Center (SEC) is a function of the Office of Special Programs as a service to children, their parents, and their teachers. The SEC staff consists of skilled evaluation specialists trained to serve as consultants to teachers and students in diagnosing and remediating academic difficulties as well as planning individualized goals for referred students.

Other programs offered by the school district include the Able and Gifted Program; the Dual Credit Program for college bound students; the Work Experience Program; and the Construction Program where students construct a house under the supervision of an instructor.

Umpqua Community College (U.C.C.)

Umpqua Community College (U.C.C.) was established in 1964 by a vote of the people of Douglas County to meet the post-secondary educational needs of its residents. The College is accredited by the Northwest Association of Secondary and Higher Schools and by the Oregon State Board of Education. Umpqua Community College awards two nationally recognized degrees: Associate in Arts and Associate in Science.

What began 16 years ago as a few classes held at Roseburg High School, has now grown to 18 buildings and many programs offering hundreds of courses. During this same period, an estimated 30,000 persons from the nearly 85,000 residents of the college district have enrolled in classes at the College.

The 100 acres of land on which the campus is located was donated by Mr. and Mrs. Elton Jackson. The campus has been built in phases with construction beginning in 1967 following voter approval of a five-year serial levy to finance building and construction cost for the first two phases. State and federal allocations provided additional funds. After district voters approved a bond issue, five additional buildings were completed by the 1971-72 academic year. The Fine Arts Building was completed in 1979. It was paid for by state building funds allocated to the College and interest earned on a bond levy approved by the voters in 1969. Currently under construction is the Educational Skills Building. State funds and local building fund monies are enabling the construction of this building which will house the learning skills center, data processing department and instructional materials center.

The College also owns .80 of an acre lying adjacent to Fir Grove Park in Roseburg. This park-like site will most likely be developed for educational purposes in the near future.

As an integral part of higher education in Oregon, Umpqua Community College relates its offerings to other schools in the state. However, the College believes that its primary responsibilities are to provide educational and personal growth opportunities for the local individual and is dedicated to meeting the educational, cultural and occupational needs of the college district.

Specific efforts toward fulfillment of these responsibilities can be witnessed in the programs and services provided by the College. These functions are illustrated below.

Occupational Preparatory Program. For students who desire a career program of two years or less, Umpqua Community College offers one and two-year courses in vocational and technical education. Special courses of less duration are provided to meet special community and student needs.

College Transfer Program. A lower division college program is provided for students who plan to transfer to four-year institutions offering the baccalaureate degree.

Community Education Program. The college provides courses which will contribute to effective living as individuals, family members, citizens, and workers. Courses are designed to meet immediate occupational needs, to improve skills of those already employed, to meet social and cultural needs, and to improve personal competencies in a variety of areas.

Developmental Education. Recognizing the need of a number of persons for development of competencies in basic skills, the college offers courses in fundamental communication and mathematics. Also provided through the Learning Skills Center are opportunities in basic education, high school completion, and tutorial assistance community Services. In addition to its curricular offerings, the college serves the community by bringing programs of educational, cultural, and social value to the

campus. The college also contributes to the community through faculty involvement in community affairs and by making its staff and facilities available for community use.

Counseling. The counseling program is designed to contribute to achievement of the college's educational purposes. Educational planning, career information, referral services, testing, job placement, and personal counseling are included in the services offered.

Student Services. The college provides a number of student services including financial aid, food services, bookstore, and health services. Opportunities are also provided for student development of activities. Participation and leadership are encouraged in student government, clubs, student publications, recreational activities, social events, competitive athletics, and community services.

Table F-14 summarizes the U.C.C. "headcount" enrollment figures for the period beginning with the 1968-69 school year and ending with the 1978-79 school year. These figures serve to illustrate the significant growth in total student enrollment as well as providing a breakdown of enrollment by term and division. Total student enrollment during this 11-year period increased by over 300 percent. Out of the 12,146 students enrolled during the 1978-79 school year, 6,504 or approximately 53 percent listed Roseburg as their city of residence.

Although Roseburg School District No. 4 is not anticipating a substantial increase in student enrollment in the near future, and while there are currently no plans for major facility improvements within the urban area (excepting the senior high school), there is still a need for coordination and cooperation between the school location and siting should be done in close coordination with ongoing comprehensive planning, taking into consideration the neighborhoods the schools are to serve, any physical limitations, the impact upon the transportation system, projected residential growth patterns and pedestrian access. Acquisition of school sites should also be coordinated with local governmental bodies in order to further the joint acquisition and development of park and school sites.

TABLE F-14
UMPQUA COMMUNITY COLLEGE
HEADCOUNT ENROLLMENT FIGURES

	1968-1969	1969-1970	1970-1971	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	1977-1978	1978-1979
Totals	2,594	3,357	3,805	4,323	4,918	5,363	5,664	6,564	8,114	9,273	12,146
By Terms											
Summer	302	290	378	297	218	309	358	414	459	770	2,718
Fall	1,528	1,476	1,838	2,012	2,180	2,474	2,857	3,058	3,025	3,768	4,015
Winter	1,544	1,611	1,910	1,787	2,575	2,616	2,458	3,173	3,367	4,485	4,253
Spring	1,413	1,692	1,622	2,407	2,306	2,628	2,535	2,542	3,761	3,732	5,520
By Division											
College Transfer	654	644	729	743	841	801	860	999	1,178	1,276	1,413
Vocational Prep.	481	832	893	925	772	868	1,115	1,347	1,296	1,262	1,418
Vocational Supp.	807	712	700	1,324	1,147	1,044	1,134	1,201	1,373	1,525	1,939
General Education	1,012	1,149	1,402	1,331	2,118	2,650	2,548	3,017	4,267	5,205	7,376

SOURCE: Umpqua Community College, May 1980.

PUBLIC LIBRARY

Public library services and facilities are provided by Douglas County. The main branch is located in the Courthouse adjacent to the Roseburg City Hall. The library has been at this location since 1956 when it was moved from the Willis House where it was operated as the Roseburg City Library. Roseburg annually contributes $8,000 toward continued operation of the library.

Library branch offices are also located in all cities in the County except Elkton. Two bookmobiles, each carrying some 3,000 books, travel throughout Douglas County delivering library service to rural areas.

Public use of the library has been steadily increasing over the years. From 1975 to 1980 the number of books checked out of the Roseburg main branch has increased an average of three percent each year. In 1979, 277,417 books were borrowed from the main branch. While some of the increased usage can be attributed to population growth, historically, in times of economic slow-down, library use has become more pronounced as citizens pursue less costly forms of recreation. Moreover, this trend will likely accelerate in light of higher energy costs. It is expected that the Douglas County Library will become more heavily used in the future.

The existing facility currently houses 206,268 volumes in an area of 13,000 square feet, half of which is devoted to support activities and administration. Limited space does not permit all materials to be available for circulation at one time.

Although no specific plans have yet been developed to enlarge or relocate the main branch, County government annually contributes $100,000 to a sinking fund established for this ultimate purpose.

GOVERNMENT AND COMMUNITY SERVICES

In addition to its role as the primary commercial center of Douglas County (see Economic Element), Roseburg is also the center of a great deal of governmental activity. A recent survey conducted by the Roseburg Planning Department revealed some 35 separate State and Federal government agencies with offices in the urban area. As the seat of county government, Roseburg is the location of most of Douglas County's operations as well (although some County departments have branch offices in other areas).

The relationship between agencies of other units of government and the Roseburg Urban Area Comprehensive Plan is addressed specifically in other elements of this document as well as in other sections of this element. Policies concerned with intergovernmental coordination and cooperation can be found throughout the Plan.

City Government

The City of Roseburg was incorporated as a municipality on October 3, 1872. By an amendment to the City Charter in 1946, the structure of City government was changed from a Mayor-Council form to a Council-Manager form. The amendment states that "the City Manager shall be the chief executive officer and head of the administrative branch of the City government and shall be responsible to the City Council."

The City Council is made up of eight councilmen. Two councilmen are elected from each of the four wards of the City by the qualified voters of the ward from which they are chosen. Their term of office is four years with one-half of the Council being elected every two years (one from each ward).

The Mayor is the executive of the municipal corporation, and it is his duty to exercise supervision over its general affairs through the City Manager. He presides over all meetings of the Council at which he is present, but he has no vote therein except in case of a tie. He annually presents to the Council a general statement of the condition of the affairs of the City and recommends the adoption of such measures as he may

deem expedient and proper. No ordinances passed by the Council can go into effect or be of any force until approved by the Mayor.

The Mayor is elected on a nonpartisan ballot by the qualified voters of the city for a term of two years and holds office until a successor is elected and qualified. The term of office begins on the first of January following his election.

To be eligible for the office of Mayor or Councilman a person must be a qualified elector in the city. Each Councilman must also be a resident of the ward from which elected. Like the Mayor, the Council receives no compensation for their services, but both Mayor and Councilmen may be reimbursed for actual expenses incurred by them in the performance of their duties. The term of office of these elected officials commences on the first day of January following their election.

Commissions are appointed by the Mayor with approval of the City Council. These commissions are an essential part of a smooth running, representative City government and act as advisors to the City Council. They may hold hearings and inquiries so as to thoroughly study issues on which they must act. The City Council often relies on boards and commissions to act as a community forum on important issues.

PLANNING COMMISSION

The Planning Commission is responsible for the preparation and recommendation to the City Council of long range plans for the physical development of the City. It hears requests for changes and modifications of these plans and conducts public hearings on applications for variances and changes to the Zoning Ordinance, studies and makes recommendations on annexations, acquisitions of public lands, street abandonment and many other public improvements.

PARKS & RECREATION COMMISSION

The Parks and Recreation Commission studies and makes recommendations

to the City Council on the type and adequacy of City recreational services and the need for various programs. The Commission conducts detailed studies and proposed new programs involving City parks and recreational facilities.

AIRPORT COMMISSION

is composed of seven members; one of whom is a City Councilperson, who has the title of Airport Commissioner and serves as Chairperson. The other six members are appointed by the Mayor, confirmed by the Council, and at least four members must be residents of the City. The City Manager is an ex-officio member and the Recorder/Treasurer acts as secretary. The appointment term is three years.

The powers of the Commission are advisory to the Mayor and Common Council and consist of the following:

1. To recommend long-range plans for improvement of the airport.
2. To develop a program of traffic stimulation, both in the fields of commercial and private flying.
3. To make periodic reports to the Council, Mayor, and City Manager regarding problems relative to the airport.

BOXING COMMISSION

The Roseburg Boxing Commission was founded by Ordinance No. 858 in 1925. The Commission consists of five members appointed by the Mayor with the advice and consent of the Council. At least one member shall be a reputable, licensed, practicing physician and the term of office for all members will be for two years and will coincide with the Mayor's term of office.

TRAFFIC SAFETY COMMISSION

The Traffic Safety Commission was created by Resolution No. 73-30 in 1973 and revised by Resolution No. 75-5 in 1975. The Commission consists of seven members which shall include one member of the Common Council and six citizens, at least four of

whom shall be residents of the City and who shall hold no other official capacity with the City. The appointment term is three years. The duties and responsibilities of the Commission include the following:

1. To coordinate citizens' traffic activities;
2. To make recommendations concerning traffic matters to the Common Council and City Manager;
3. To recommend to the Common Council and appropriate City officials ways and means for improving traffic conditions and the administration and enforcement of traffic regulations;
4. Carry on a comprehensive program of public traffic safety and education.

ECONOMIC & DEVELOPMENT COMMISSION

The Economic & Development Commission was created by Ordinance No. 2001 in 1975. The Commission consists of seven members, one of whom shall be the Chairperson, together with six citizens, at least four of whom shall be residents and inhabitants of the City and who shall hold no other official capacity with the City. The appointment term is three years. The duties and responsibilities of the Commission include the following:

1. Evaluate the City's existing programs and improvement projects and make recommendations to the Common Council and the City Manager for their continuance, discontinuance or modification.
2. Receive input from the general public relative to the economic betterment and improvement of the City and make reports and recommendations to the Common Council and the City Manager.
3. Recommend to the Common Council and the appropriate City officials ways and means for improving the economic betterment and improvement of the City.
4. Seek to develop and coordinate close communications and relationships between the City government, Chamber of Commerce, private business and industries and interested citizens relative to the economic betterment and improvement of the City.

5. When directed by the Common Council, and with such facilities as may be provided for the purpose, it shall carry on a comprehensive program of economic betterment and improvement.

ROSEBURG TRANSPORTATION COMMISSION

The Roseburg Transportation Commission was created by Ordinance No. 2162 in 1978. The Commission consists of seven members, one of whom shall be the Chairperson, together with six persons at least four of whom shall be residents and inhabitants of the City and who shall hold no other official capacity with the City. The duties and responsibilities of the Commission are:

1. To consider and formulate long range planning to meet the present and future needs of public transportation in the City of Roseburg and its environs.
2. To monitor the existing operation of the public transportation system of the City and make such periodic reviews thereof as may be necessary to plan for and put into effect continuing efficient, serviceable and economic operation of the system within available confines and equipment.
3. To develop and periodically update a program for user stimulation of the system.
4. To establish routes and schedules which will provide such public transportation within the City as may be reasonable within equipment and financial availabilities and with the concurrence of the Common Council to plan for and extend routes into areas outside of but in the vicinity of the City.
5. To study, formulate and make recommendations to the Common Council as to rates to be charged to users of the system with the understanding that the rates shall finally be fixed by the Common Council.
6. To review and make recommendations to the Budget Committee and Common Council on all budget requests for operation and maintenance of the system.
7. To make periodic reports to the Common Council as to the operation of the system and to call attention to any problems relative to the system or as to other matters which might require Council attention for improvements to the system.

WATER COMMISSION

The Water Commission was created by Resolution No. 77-57 in December, 1977. The Commission consists of seven members which shall include one member of the Common Council, who shall act as Chairperson; four water system consumers who reside within the City; and two water system consumers who reside outside the City. The appointment term is two years. The duties of the Commission are advisory only in nature and include the following:

1. Make observations of the operation and management of the municipal water system.
2. Periodically study the consumer rate structure of the system.
3. Consider and plan for a long-range operation and management program for the system.
4. Investigate and study means of affecting economies in operation and management of the system.
5. Study and consider ways and means of improving the system and the service it can provide to the consumers.
6. Make recommendations to the Common Council relative to the above matters and as to any other matters which the Commission may feel to be for the good of the system and for the benefit of the consumers.

BUDGET COMMITTEE

The Budget Committee is established by ORS 294-336. The Budget Committee consists of the members of the Common Council and an equal number of residents of the City. The appointed members shall not be officers, agents, or employees of the City. The appointed members' terms are staggered and are for a duration of three years.

The Budget Committee approves all budget documents for the City of Roseburg.

CITY DEPARTMENTS

To carry out the many phases of the City's services, the various functions are organized into the following departments. At the head of each of these departments is a Director who is responsible to the City Manager for conducting the affairs of that department.

Recorder/Treasurer

The City's primary source of revenue comes from ad valorem taxes, state subvention funds, franchise fees and many other sources. This department's duty is to administer the City's revenues and expenditures according to the adopted budget. In addition, the Recorder/Treasurer has control over the sewer billing, water billing, cashiering and handling of all City funds. The Recorder/Treasurer is charged with the investment of all reserve funds and accounts. The department is also in charge of investigating and processing requests for business licenses and permits. The Recorder is the official secretary of the City Council and does other studies as required by the City Manager.

Public Works Department

The Public Works Department consists of five divisions: the Street Division, responsible for street maintenance and repair; Engineering Division, responsible for engineering, preparation and administration of all contract projects in the City; Sewer Division, responsible for operation and maintenance of sewer treatment plant and collection system; Shops Division, responsible for maintenance and repair of all City vehicles and equipment; Water Division, responsible for the operation and maintenance of water plant, services, and collection system.

Building Department

This department is responsible for enforcement of the building code, issuing building permits, reviewing plans and making on-site inspections to ensure the work is performed according to established standards.

Planning Department

The Planning Department is responsible for the administration of the City's Comprehensive Plan, Zoning Ordinance, and Subdivision Ordinance. The Department also conducts both short-range and long-range studies relating to land use. All planning activities are closely coordinated with other city departments as well as with other units of government which may be affected by such activities. The Planning Department provides staff support to the Planning Commission and various committees studying land use matters.

Parks & Recreation Department

The main responsibilities of this department are to develop and maintain adequate recreation facilities and provide a variety of recreational activities for every member of the family and plan ahead for future citizens.

Fire Department

The primary goal of the Fire Department is protection of life and property of the citizens of Roseburg from loss by fire. To achieve its goals, the department conducts fire inspections and investigations to determine and eliminate causes of fire. Other activities of the department include grade school fire prevention programs, training of industrial fire brigades, and enforcement of the Uniform Fire Code. The Fire Department is discussed in greater detail in another section of this element.

City Attorney

The City Attorney provides legal advice to the City Council and City officials, prepares legal documents, contracts and ordinances, and acts as the City's attorney in prosecution of criminal cases.

Municipal Judge

The Municipal Judge is appointed by the City Council and shall hold office during the pleasure of the Council.

The Municipal Judge shall be the judge of the municipal court of the City of Roseburg and shall have jurisdiction over all violations of City ordinances.

Hearings Officer

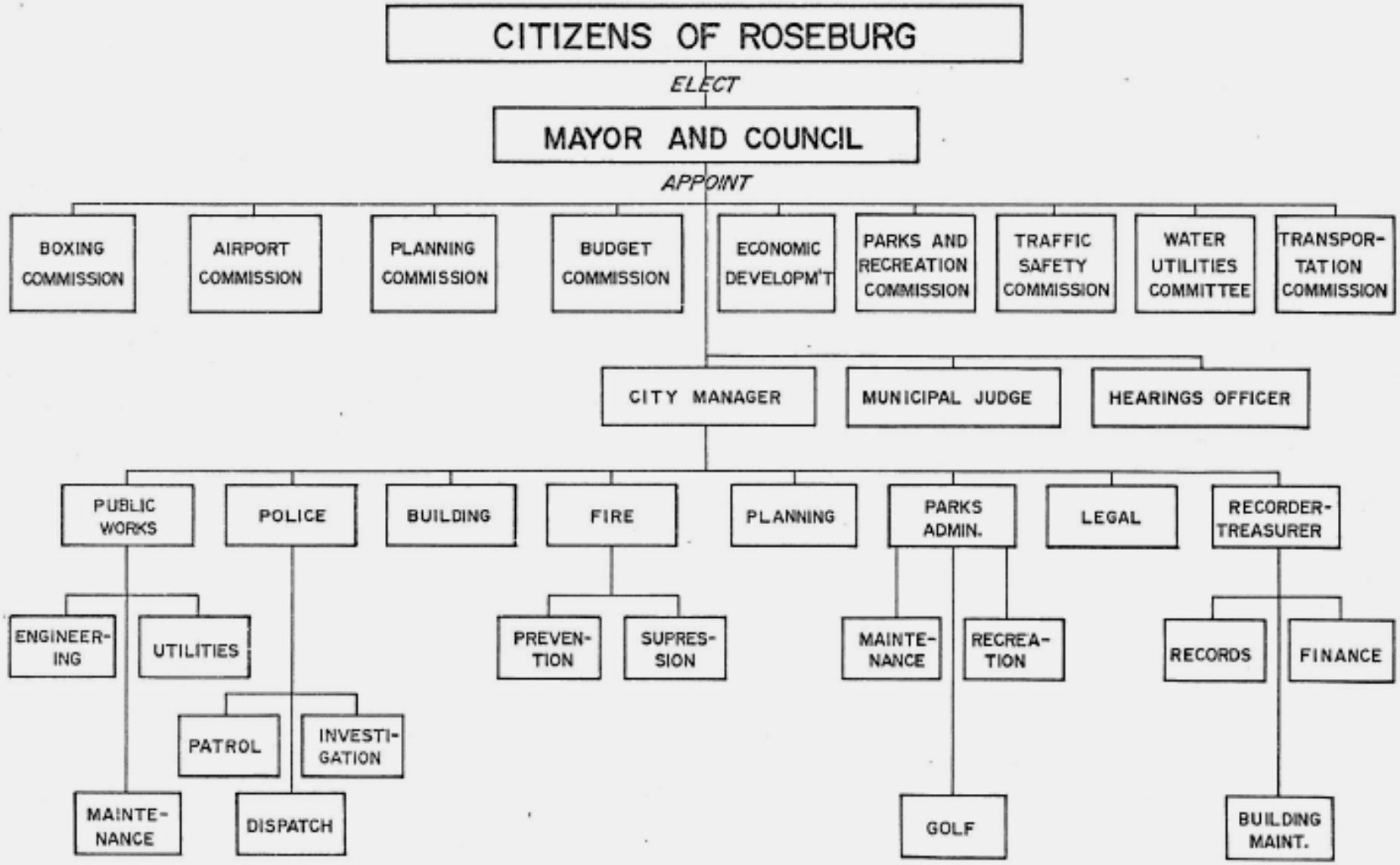
The Hearings Officer, which may consist of one or more persons, is appointed by the City Manager to hear applications for zone changes, conditional use permits and variances. He/she shall serve at the pleasure of the City Manager.

An organizational chart of the City government is provided on the following page.

County Government

Douglas County operates under law as provided for in the State Constitution.

The governing and administrative body is known as the Board of County Commissioners. It is composed of three members elected at large. They run for numbered positions: One, Two, or Three. The Commissioners are elected for staggered four-year terms. Their duties are to serve as governing body, establish budget, supervise county property, appoint non-elective officers, boards and commissions.



MUNICIPAL ORGANIZATION of the CITY OF ROSEBURG

The Commissioners in conjunction with the Budget Committee have power to levy county taxes. If the amount levied exceeds the constitutional six percent limitation, the amount in excess of the limitation must be approved by the voters at a budget election. The commissioners have the authority to make appropriations and authorize bonds.

The Board of County Commissioners also controls county-owned property and pass upon claims against the county. it has authority over county functional and administrative departments other than those headed by another elected official.

The county functions as an agent of the state. However, the steady growth in size and scope of local government and the great shift in population from farm and city to "suburban" areas have created an expanding role for the county.

Although more and more county functions, such as roads, law enforcement, welfare, health and education are now shared or supervised at the state level, the "County Home Rule" constitutional amendment approved by the people on the 1958 ballot gave Oregon counties more autonomy to meet local needs. Douglas County is not presently a "Home Rule" County. but the County Commissioners could by resolution establish a home rule committee to study the operation and problems of county government and determine whether it would be advisable to prepare a home rule charter for the county.

In addition to the county services discussed elsewhere in the Plan, Douglas County government provides many other services. Of particular relevance to planning and land use are the Planning Department, Surveyor's Office, Public Works Department, Assessor's Office and Building Department.

Cooperation between city and county government is essential to the orderly and efficient provision of services in the urban area. Lack of cooperation and coordination between units of government can result in a lack of services in some areas, while other areas end up with overlapping services and facilities. The effective implementation of intergovernmental coordination in the Roseburg urban area is to be facilitated through a

mutually adopted Urban Growth Management Agreement in conjunction with an Urban Growth Boundary.

State and Federal Government

As previously noted, there are about 35 state and federal agencies with offices in the Roseburg urban area. The relationship of state and federal governments to the Roseburg Urban Area Comprehensive Plan is addressed specifically in other elements of this document (see Population, Natural Resources, Housing, Economic, Transportation, Energy, Historic Preservation, Natural Hazards, Parks and Recreation and Land Use Elements). Policies contained within other elements of the Plan illustrate the City's recognition of the importance of intergovernmental cooperation and coordination to ensure the social, economic and physical

Community Services

A wide range of social services are made available to local citizens through the efforts of many non-governmental organizations. These valuable services include health, education, financial assistance, housing, food, aid to the handicapped, employment, emergency service and many more.

Any attempt to list all of these organizations would extend far beyond the scope of this section of the Public Facilities and Services Element and a description of the services provided would require an entire volume of its own. However, such a volume or "catalog" does exist.

Every two years, through the joint efforts of Umpqua Regional Council of Governments, the Central Douglas County Inter-Agency Council publishes the Douglas County Community Services Directory. The 1980 edition contains 200 pages and lists 224 separate agencies and organizations within Central Douglas County. Descriptions of the various organizations' purpose or mission, as well as the services each provide are given. Other information, such as fees, eligibility for service, source of funding and areas served is also provided.

FINDINGS

Water

1. Domestic water service is provided to nearly all of the Roseburg urban area via five different water systems. The Roseburg municipal system provides service to about 6,200 customers inside the City, and another 2,620 customers outside the City, of which about 360 are served via the Dixonville Water System (300) and the Three Pines Water System (60). Roberts Creek Water District provides service to urban and rural areas to the south of Roseburg, while Umpqua Basin Water Association serves the rural areas to the north and west of the urban area.

2. Umpqua Basin Water Association is primarily a rural system which serves areas to the north and west of the urban area. This system has an independent source and is not connected with other systems.

3. The North Umpqua River is the source of most domestic and industrial water consumed in the urban area. Umpqua Basin has rights to 9.1 cubic feet per second (cfs) at its Browns Bridge intake and the Roseburg system has rights to 31 cfs at the Winchester intake.

4. Twenty-five cubic feet per second of the City's existing water rights predate minimum flow requirements for the North Umpqua River. All future water rights will be limited by minimum stream flow standards established by the state.

5. The treatment capacity of the Roseburg water plant is currently limited to 3.4 million gallons per day (mgd) during winter months and 10 mgd during summer months. Umpqua Basin's treatment capacity is limited to about 1.25 mgd. At the present time, Umpqua Basin's peak demand exceeds treatment capacity.

6. Treated water is transmitted to the Roseburg distribution system via a 30-inch and a 20-inch line. The older sections of the transmission line are badly deteriorated and require constant maintenance.

7. Umpqua Basin has recently applied for a Farmer's Home Administration loan of one million dollars to finance improvements which will allow the system to meet expected demand over the next ten years. None of the improvements will extend into areas serviceable by the Roseburg Municipal system.

8. Some existing Umpqua Basin facilities lie within portions of the urban area which could conceivably be annexed to the city (to receive sewer service) in the near future. The City and Umpqua Basin presently do not have an agreement concerning annexation of the Association's facilities.

9. The City's water system consists of over 100 miles of lines which vary in size from two inches to thirty inches. Some of the system is 60 years old and is deteriorating rapidly. Annually, 18 to 22 percent of the water in the system is lost due to leakage.

10. The City system has a storage capacity of 9.57 million gallons (mg) in eleven reservoirs ranging in size from 0.02 mg to 4.0 mg. This storage capacity leaves the system about 4 mg short of an ideal three-day supply.

11. Based on an estimated year 2000 service area population of 40,000 persons, the municipal water system will be required to supply an average daily flow of 7.81 mgd.

12. In 1977 the City water system was evaluated by the Oregon Insurance Service Office and was found to be in need of an additional 450 fire hydrants. Since that time, the City Fire Department has initiated an aggressive program to increase the number of hydrants on the system. About 100 new hydrants were added during the 1979-81 fiscal years.

13. In 1979, the City of Roseburg adopted the Roseburg Water System Master Plan. The Master Plan contains a detailed analysis of the existing system as well as specific recommendations for improvements to ensure the urban area's domestic

water needs will be met to the year 2000. The Water System Master Plan has been incorporated into the Comprehensive Plan by reference.

Sewer

14. Sanitary sewer service in the Roseburg urban area is provided by three separate agencies; North Umpqua Sanitary District, North Roseburg Sanitary District, and the City of Roseburg.

15. Sections of the City sewer system date back to 1915 and are in poor condition due to age. Most of the system (90%) was incorporated with the storm drain system which caused the treatment plant's capacity to be exceeded during wet weather months. The City is currently in the process of separating the systems and all new sewer lines must be constructed separately from storm drains.

16. The current estimated average dry weather wastewater flow in the Roseburg system is 2.0 mgd. During the winter months, storm runoff pushes the wastewater flow up to a maximum of about 115 mgd. Since the maximum amount of wastewater treated at the plant is around 5.5 mgd, over 95 percent of the wastewater at peak flow periods bypasses the plant and discharges directly into the South Umpqua River.

17. The North Roseburg Sanitary District's treatment plant treats sewage from that District as well as from the North Umpqua Sanitary District. Current treatment capacity is 2.0 mgd. The plant does not receive sewage mixed with storm runoff.

18. Neither the North Roseburg or Roseburg City treatment plants are capable of producing an effluent quality to meet current discharge standards for the South Umpqua River.

19. In order to ensure that standards will eventually be met, DEQ has placed operating limits on the facilities. The regulations prevent remodeling or additions to the existing treatment facilities unless such construction would result in the

plant's total discharge meeting current standards. Historically, this requirement has been viewed as one which eliminates all options other than construction of a new treatment plant.

20. In 1978, the North Roseburg plant reached capacity and could accept no additional sewage. At that time, the City's plant had 600,000 gallons per day capacity remaining, of which 400,000 gallons was allocated to North Roseburg Sanitary District through an inter-agreement. By June of 1981, 34 percent of the remaining capacity had been used.

21. In 1979, there was 1,282 acres of vacant buildable land inside the City of Roseburg. It has been estimated that if all of this currently undeveloped land were to develop at the average city-wide density, it could create a demand for an added treatment capacity of 1.6 mgd. This is about 1.4 mgd more than present plant capacity. Growth trends during the past five years suggest the Roseburg treatment plant will reach capacity in the next two to five years (1982-1985).

22. Limited sewage treatment capacity in the Roseburg urban area represents perhaps the single most important constraint to future growth. Three basic alternatives appear available at this time; (1) the existing treatment facilities could be modified to meet effluent standard or a new "regional" facility constructed to partially or wholly replace the existing plants; (2) effluent discharge standards could be reduced to allow the existing plants to operate above their design capacity; or, (3) limit or stop future urban area development and growth.

Solid Waste

23. The collection and disposal of solid waste is a service essential to the health, safety, appearance and proper function of the Roseburg urban area. Solid waste management in the Roseburg urban area is provided by Douglas County. The current solid waste management program was developed in the Solid Waste Management Study prepared by the Douglas County Engineer's Office in 1973.

24. Solid waste generated in the Roseburg urban area is disposed of at Douglas County's central sanitary landfill located about a mile southwest of the City.

25. The Roseburg landfill accepts approximately 457,200 cubic yards of solid waste annually. The landfill has an estimated life of sixteen more years with continued current landfill practices. The volume of solid waste has been increasing at a rate of approximately 2 percent per year. This slight increase presents no problem with transporting or processing; however, the capacity of the site will rapidly be exhausted without alternate methods of disposal.

26. There are no approved industrial waste disposal sites located within the Roseburg urban area. There are no approved hazardous material disposal sites located within the urban area, or within Douglas County for that matter. However, disposal of small quantities of some hazardous wastes at the Roseburg landfill under specified conditions is allowed by DEQ.

27. The establishment of new sanitary landfill facilities requires considerable lead time to ensure that a site which is both environmentally and socially acceptable can be located. There is currently no local public policy regarding the location and development of a future landfill to serve the Roseburg urban area.

28. The remaining life expectancy of the Roseburg landfill could be as much as doubled if volume reducing practices were put into practice. Such measures could include shredding, compaction, combustion and resource recovery.

Fire

29. Fire Protection service in the Roseburg urban a real is provided by the Roseburg Fire Department and Douglas County Fire District No. 2 (DCFD 2). Although the two departments have mutual aid agreements, DCFD 2 provides service to the unincorporated urban area around the City, while the City department generally limits its protection service to the incorporated area.

30. The City of Roseburg currently has a fire rating of Class 5. Deficiencies existing in the City's water system (storage capacity, fire flows, number of hydrants, etc.) were major factors preventing a more favorable rating. Since the 1977 rating, many of the major deficiencies have been corrected or improved.

31. Annexation of territory to the City results in a division of Fire District No. 2's assets (money, equipment or facilities). State law (ORS 222-524 to 222-530) requires that such division of assets shall not result in a lower level of fire protection or a less favorable fire insurance grade classification.

Police

32. The Roseburg urban area is served by three law enforcement agencies. The City Police Department is the primary law enforcement agency within the City proper, while most law enforcement service in the unincorporated urban area is provided by the Douglas County Sheriff's Department. Roseburg is also located in District No. 3 of the Oregon State Police.

33. The City Police Department has no set policy regarding adjustments in force strength to reflect increases in both population and city size. Rather, the approach used is one of flexible anticipation and response, of which a key element is coordination with other city departments regarding notice of annexations, large-scale changes in land use, or areas of special concern.

34. Unlike the City Fire Department, the Policy Department does not have formal mutual assistance agreements with other law enforcement agencies. Nevertheless, the City Policy Chief has stated that all law enforcement agencies in the urban area have a high degree of mutual cooperation and provide assistance when called upon.

Health Care

35. The availability of quality health care facilities and services in Roseburg has been a significant factor in attracting people to the urban area.

36. The three hospitals in Roseburg are currently licensed for a total of 586 beds, including 342 at the Veteran's Administration Hospital The Western Oregon Health Systems Agency has calculated that Douglas County has more than an adequate availability of hospital beds. This is attributed primarily to the hospitals in Roseburg.

37. Douglas County operates a large, well-staffed public health department in Roseburg. The facility provides the public with a wide range of services and programs to promote the physical and mental health of the area's residents.

38. Local health planning is the responsibility of the Douglas County Comprehensive Health Planning Council. In 1975, the Council adopted the Douglas County Health Plan. The Plan describes the status of local health services, and provides for their future development to 1985.

39. The level of ambulance service in the Roseburg urban area is deemed to be very high when evaluated by such factors as vehicle to population ratio, communication system, training level of ambulance personnel, and type of emergency equipment available.

Schools

40. The Roseburg urban area is located within Roseburg School District No. 4. Ten of the district's 13 schools lie within the urban area and consist of seven elementary, two junior high and one senior high. Enrollment figures for the last five years (1975-1979) show that District No. 4 schools within the urban area experienced an overall decline in the student population.

41. There are four parochial schools in the urban area which have a 1979-80 combined enrollment of 624 students. Enrollment in private schools has nearly doubled in the last five years (1975 to 1980) while enrollment in the urban area's public schools has experienced an overall decline during the same period.

42. Fluctuation in enrollment figures for elementary and junior high schools occur as a result of alterations in school attendance boundaries when overcrowding is experienced at a particular school. The district does not assign student capacities to its various schools, but rather conducts an ongoing assessment of student capacity for district schools using various formulas that take into account specific facility and curriculum needs.

43. A "Market Study, Land Use and Financial Analysis" conducted for School District No. 4 has recommended that Roseburg High School be retained at its present site and that future expansion be facilitated through the purchase of nearby residential property on Bellows, Alva, Birch and Finlay Streets.

44. The School District has commissioned a Facility Needs Report and a Market Study which recommend disposal of some unused district property in the urban area, including a 60-acre site on Stewart Parkway and an 18-acre site in the Charter Oaks area.

45. Umpqua Community College is situated on a 100-acre site at the north end of the urban area. The facility provides a wide range of educational and vocational opportunities to the residents of Douglas County. In 1979, the college had an average enrollment of 4,600 students per term.

46. The existing community college site is of sufficient size to accommodate expected future growth to the year 2000. The site has good access and the full range of urban services, including public sewer and water.

Library

47. The Main Branch of the Douglas County Library is centrally located in Roseburg at the Courthouse. The existing facility is too small to adequately accommodate the full range of services it is otherwise capable of providing. Expansion or relocation of the library is anticipated in the near future.

48. Patronage of the library has been increasing by about three percent annually. The central location of the facility and its proximity to other services and facilities, such as public transportation, may be a significant factor in its heavy usage by the public.

Social Services

49. A wide range of social services are made available to local citizens through the efforts of many nongovernmental organizations. These valuable services include health, education, financial assistance, housing, food, aid to the handicapped, employment, emergency service and many more. A complete listing of urban area social services is provided in the Douglas County Community Services Directory.

Government

50. Cooperation between city and county government is essential to the orderly and efficient provision of services in the urban area. Lack of cooperation and coordination between units of government can result in a lack of services in some areas, while other areas end up with overlapping services and facilities. The effective implementation of intergovernmental coordination in the Roseburg urban area is to be facilitated through a mutually adopted Urban Growth Management Agreement in conjunction with an Urban Growth Boundary.

ASSUMPTIONS

1. The City of Roseburg will be required to secure additional water rights on the North Umpqua River. Delays in securing these rights will reduce their effectiveness, as rights established by others will compete for the limited resource. Current water rights are adequate to serve projected urban area growth past the year 2000.

2. Continued deterioration of the City's water system will lower its ability to meet future demands unless a vigorous reconstruction and maintenance program is initiated.

3. The demand for additional municipal water service outside the city limits will stabilize after the establishment of an urban growth boundary and adoption of stronger annexation policies.

4. Recent and ongoing improvements to the City's water system will allow the area's property owners to enjoy a more favorable fire insurance rating unless future fiscal conditions force the city to cut back on the level of fire protection service which is currently provided.

5. Current waste discharge standards for the South Umpqua River will continue to be maintained at their current level, thus preventing the existing wastewater treatment facilities from exceeding their design capacity.

6. Continued separation of storm drains from the City's sewer system will reduce the amount of wet weather flows which currently bypass the treatment plant and discharge directly into the river; however, separation of storm water from the system will not raise the plant's treatment capacity.

7. Unless additional sewage treatment capacity is constructed, the Roseburg urban area will be faced with a moratorium on additional development by 1985.

8. Solid waste generation will continue to increase at a faster rate than population growth. A new sanitary landfill facility will be needed before 1990.

9. Resource recovery and recycling will become increasingly feasible from an economic viewpoint and will, to a limited degree, reduce the otherwise expected burden on solid waste disposal facilities.

10. Future territorial growth of the City will place an increasing burden on its fire protection services.

11. As the urban area continues to grow, the incidence of crime will increase, requiring a higher level of police service and necessitating more formalized cooperative agreements between law enforcement agencies.

12. The abundance of quality health care services and facilities will continue to attract people, particularly people of retirement age to the Roseburg urban area. Unless there is a major change in the manner of the delivery of health care, the future health care needs of the community will be met by existing providers either by greater utilization or expansion of present facilities.

13. Decreasing family size will continue to allow public schools to serve larger areas; however, overall growth of the urban area will create the need for more school facilities.

14. Disposal of currently unused school district property could result in an inadequate supply of future school sites in the urban area.

15. The school district will be faced with increasing demands for programs and facilities to meet the special needs of all school age children, including those with physical, mental, and emotional handicaps.

16. The library system will face an increasing demand for larger facilities and a wider range of specialized materials and programs.

17. As the Roseburg urban area continues to grow, cooperation and coordination between the City and other units of government will become increasingly essential in order to ensure the orderly, efficient and economical provision of the vast range of needed services and facilities.

GOALS, OBJECTIVES AND POLICY STATEMENTS

Goal

To provide a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for community development.

Objectives

1. Provide a level of public facilities and services adequate to meet the needs of existing and planned development.

2. Direct the location and timing of urban development by means of capital improvement planning which is closely coordinated with the Comprehensive Plan.

3. Optimize the utilization of existing facilities.

4. Reduce and, if possible, eliminate overlapping service areas within the Roseburg urban area.

5. Strive for continued and improved cooperation and coordination between other units of government as well as other public and private organizations which provide services to the urban area's citizens.

Policies

1. Facility and service planning in the Roseburg urban area shall use the Comprehensive Plan as the basis for decisions to ensure that needs of the urban area are met in a timely, orderly and efficient manner.

2. In addition to the physical, economic, energy and social considerations addressed by other policies in this Plan, the timing and location of urban

development within the urban area shall be based upon the current or imminent availability of urban services; particularly public sewer and water.

3. n those portions of the urban area where the full range of urban services is not available, capital improvement programming for that area will be developed prior to extension of services intended to facilitate further development of that area.

4. The City shall develop a capital improvement program for improvements to the municipal water system, including the treatment plant, to ensure the expected water needs of the service area will be met to the year 2000.

5. The City shall not extend water service beyond the urban growth boundary. Extension of city water service to property outside the City limits may only be made upon agreement to annex such property to the corporate City limits at such time as allowed by State Statute.

6. The City Council shall establish a water allocation level for other water systems supplied through the Roseburg Municipal System. Except in the event of an emergency, the allocation level shall not be exceeded. The City Council may revise the allocation level at any time.

7. Wherever possible, new water distribution lines in the urban area shall be looped for all new developments, and except for cul-de-sacs, all new water distribution lines shall be a minimum of six inches in diameter. The size of any new main is to be based on planned density and type of use designated in the Comprehensive Plan.

8. All new residential plans, industrial and commercial developments in the urban area shall make provisions for fire hydrants and fire lines where applicable.

9. All new developments in the urban area shall have separate storm sewer and sanitary sewer lines. The City shall continue to work toward separation of all storm and sanitary sewer lines in the Roseburg sewer system.

10. The availability of adequate sewer service, both in terms of collection and treatment capacity, shall be a precondition to a development project.

11. Sanitary sewer service shall not be extended outside the urban growth boundary. Extension of city sewer service to property outside the City limits may only be made upon agreement to annex such property to the corporate City limits at such time as allowed by state statute.

12. The City shall work closely with Douglas County, the Special Districts and other public agencies to develop a waste water facilities plan to provide for the timely, orderly and efficient arrangement of sanitary sewer service to meet the projected needs of the urban area to the year 2000. The facilities plan shall contain a workable strategy for financing new collection, transmission and treatment facilities.

13. The City shall encourage, and cooperate with, Douglas County government to locate, plan and develop an alternate solid waste disposal site.

14. In order to provide the best possible service to the community, the Fire Department and Police Department shall periodically make a conscientious and studied evaluation of the department's operations and facility needs, with particular attention paid to new demands caused by urban growth, state directives and local inter-agency cooperative agreements. A written evaluation shall be prepared for the City Manager, who in turn may call attention to specific items for consideration by the City Council, Planning Commission or staff.

15. The City shall encourage and help facilitate the unification an consolidation of urban services within the Urban Growth Boundary.

16. The City shall strive to improve the level of cooperation with all agencies of local, state and federal government in order to ensure the timely, orderly and efficient

provision of all public facilities and services essential to the social, economic and physical well being of the urban area and its citizens.

HOUSING ELEMENT

URBAN AREA

ROSEBURG

R

COMPREHENSIVE PLAN

HOUSING ELEMENT

Introduction

Housing is a basic need; it provides shelter from the elements. It is also a place to retreat for privacy and a place to gather with one's family. In addition, a house can act as a medium for self-expression.

Throughout history and in different cultures, housing has taken on other meanings due to changing perceptions of its role. At the current time in this country, a home is viewed as a major financial investment to offset the declining value of the dollar.

Housing also has a broader significance, because it occupies a large percentage of a city's land. Therefore, it is a substantial part of the local tax base. It also influences the physical character of a community and hence the image that people have of that community.

On the federal level, housing availability has underpinned various policies. The Housing Act of 1949 encouraged "the realization as soon as feasible of the goal of a decent home and suitable living environment for every American family." To this end, there have been various programs to provide new and rehabilitated housing for low income households. Many households have benefitted from interest subsidies on mortgages either outright or through negative taxation.

Finally, the State of Oregon, through the Land Conservation and Development Commission (LCDC), has directed all planning jurisdictions to make provision in their comprehensive plans for housing to accommodate the needs of people of all income levels.

Hence, it is both important and necessary for cities to review and plan for local housing. Before beginning such review, however, it is valuable to examine how much influence the City actually has in planning and maintaining its housing stock. Certain factors are outside the City's sphere of influence. For example, the City has no direct

control over housing costs in areas such as the cost of existing homes, land, labor, building supplies, and mortgage interest rates. Another constraint on the City's influence is the possible inability of existing housing to meet criteria necessary for securing financing. State and federal taxing policies and housing assistance programs are also a factor over which the city has little control.

Despite these constraints, however, the City has a sizable role in housing. Through its comprehensive plan, Roseburg will have the opportunity to designate various land areas in the City for residential purposes. It will also be able to control the density of buildings for a given unit of land. The City can further influence housing by the amount of land it allocates in the comprehensive plan for various support activities such as commercial and industrial enterprises. Whether or not the city provides ancillary services and facilities, such as sewer, water, streets, and police and fire protection, also affects housing development.

To assist the City of Roseburg in exercising its role in the provision of housing, this element includes discussions of the following: the number and different types of existing housing units, the age and physical condition of the housing stock, the number of households who own and rent, the cost of housing and the ability of residents to afford housing. Furthermore, future housing needs will be discussed, and methods of providing for those needs will be examined.

The Housing Problem

In order to set the scene for the importance of housing planning, it is useful to back up, and give a brief overview of something called the "housing problem." Roseburg, as well as Douglas County as a whole, has experienced rapid growth in employment opportunities, population and housing in recent years. The population of the Roseburg urban area increased from 17,781 in 1970 to 25,435 in 1980--an annual growth rate averaging about 3.9 percent. Although Roseburg has historically been dependent upon the timber industry to provide employment opportunities, one significant factor in the City's growth has been the increasing diversity of the area's economy. While labor force statistics for the City of Roseburg are not currently

available, it is significant to note that between 1970 and 1980 the labor force of Douglas County as a whole increased from 27,630 to 40,860; an increase of about 47 percent. During the same period, the County population increased by only 21 percent.

While population and employment growth of this magnitude is significant in its own right, its impact on housing has been intensified by concurrent shifts in age composition and household structure. Between 1970 and 1980 the average household size in Oregon dropped significantly. This decrease, which mirrors national trends, reflects two factors. First, there was a rapid growth in the 15 to 24 and 65 and over age groups. These groups are most apt to form one or two-person households. Second, an increasing divorce rate led to fragmented families and smaller households.

As a result of the decrease in family size, the number of households increased at a faster rate than did population during the previous decade. The U.S. Census taken in 1970 reported 5068 dwelling units in the City of Roseburg, of which 4822 were actually occupied, providing an overall vacancy rate of 5.1 percent. Of the occupied dwelling units, 63.5 percent were owner occupied. It should be pointed out, however, that these figures are probably inflated somewhat, since they do not subtract dwelling units which were not available for occupancy. Nevertheless, the 1970 Census presently provides the most comprehensive source of housing data available for Roseburg. Data from the 1980 Census, which will not become available until after the adoption of the Comprehensive Plan, will allow a more detailed evaluation of the urban aerials housing situation. Until 1980 data does become available, housing statistics from other sources must be relied upon.

A survey conducted by the Umpqua Regional Council of Governments in 1976 reports that in central Douglas County, owner occupied dwellings comprised 75.6 percent of the housing stock. This is significantly higher than for the State of Oregon as a whole, which reported 63.5 percent of all dwellings as owner occupied.

In July of 1978, the Umpqua Regional Council of Governments conducted a survey of both single-family and multi-family dwellings. Nine landlords who rent single-family units on a regular basis were contacted. Of 37 units sampled, none were vacant.

Of 748 multi-family units sampled, only 10 were vacant. This translates to a vacancy rate of 1.3 percent at that time.

An independent survey of fifteen apartment buildings in August, 1979, revealed that of a total of 795 multi-family units, there was six vacancies; indicating a .75 percent vacancy rate.

A commonly accepted rule-of-thumb states that, given a balanced supply/demand market, the single-family vacancy rate should range between 1.75 and 2.0 percent, and the multi-family rate between 5.0 and 6.5 percent. While a more comprehensive survey is necessary to make a reliable determination of vacancy rate, the various "random sample" surveys conducted from time to time do provide useful information. Although data on single-family units is rather sparse, the vacancy rate data for multi-family units can be used as an indicator. A low vacancy rate for multi-family units usually indicates an even lower rate for single-family units.

Based on currently available data, a realistic estimate of the multi-family vacancy rate is about one percent, while a vacancy rate of somewhat less than one percent is estimated for single-family dwellings.

For Douglas County as a whole, a report prepared by the Oregon State Housing Division in 1978[15] provides a regional view of the housing vacancy situation. The Housing Division's report concluded that the housing market in Douglas County is characterized by a low vacancy rate. The reported finding of the analysis was that total vacancies in the county decreased by about 277 units between 1970 and 1978. The sales vacancy rate increased from .9 percent in 1970 to an estimated 2.0 percent in 1978, while the rental rate dropped from 6.88 percent to about 2.0 percent over the same period.

[15] State Housing Division, Housing Market Analysis Situation Report, Douglas County, Oregon, July 1, 1978

The findings of the State Housing Division tend to support conclusions about vacancy rates for the Roseburg urban area, since they have historically been lower than those of the county overall.

The housing market has always been in a continuing state of change, but in more recent years housing characteristics are evolving at a greatly accelerated pace. Rising costs in land, labor, materials and financing have made the ownership of a single-family residence beyond the reach of many citizens. In fact, studies in 1977 showed that newly constructed single-family housing at a minimum price of $35,000 could be afforded by only 45 percent of Oregon's households; whereas an average priced home costing $50,000 could be afforded by on I y 23 percent of Oregon' s households.[16]

To fill the gap left by the demise of the inexpensive single-family home, more and more apartments, duplexes, condominiums and mobile homes have been placed on the market. Building permit data for the City of Roseburg, as well as some data for the unincorporated urban area, as illustrated in Tables H-1 and H-2, tend to substantiate this trend. In the nine year period 1971-1979, 1159 housing units were built in the City of Roseburg. Of these, 45 percent were either apartment, duplex or condominium.

For the entire urban area, 34 percent of all new dwellings during the 1970-79 period fall under the general category of multi-family dwellings, of which 67 percent were constructed within the City of Roseburg.

While the City has discouraged the placement of mobile homes on individual lots within the city limits since 1970 , it is interesting to note that 34 percent of the new dwellings in the unincorporated urban area between 1974 and 1979 were mobile homes; and of all single-family dwellings, mobile homes comprised 44 percent. Furthermore, if we total all single-family dwellings constructed or placed in the entire urban area since 1970, we find that mobile homes still comprised 24 percent of the total.

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[16] Oregon State Housing Division

Housing Costs

The trend toward lower cost housing, as revealed by the statistics discussed above, is a reflection of the rapidly changing housing market. Prices for new, as well as existing, units have increased dramatically during the past decade. The rise in price for single-family dwellings averaged 13 percent between 1972 and 1977. During the most recent 18 month period, prices rose at an annual rate of 17.5 percent.

Escalating prices, coupled with rising interest rates, have led to unprecedented increases in average monthly payments on newly originated mortgages. Current statistics indicate that rising housing costs and interest rates place a single-family residence beyond the means of most Oregonians. The minimum price of a home built in Oregon in 1977 was approximately $35,000. A household needed to have an average annual income of $17,472 to avoid paying more than 25 percent of gross income for a house priced at that level.

TABLE H-1
HOUSING CONSTRUCTION
CITY OF ROSEBURG
1970-1979

Year	Single-Family	Duplex*	Multi-Family	Total No. of Units
1970	29 (83%)	6 (17%)	--	35
1971	43 (33%)	12 (9%)	75 (57%)	130
1972	62 (38%)	2 (1%)	97 (61%)	161
1973	50 (96%)	2 (4%)	--	52
1974	54 (96%)	2 (4%)	--	56
1975	60 (54%)	6 (5%)	44 (41%)	110
1976	74 (33%)	14 (6%)	130 (61%)	21
1977	107 (60%)	28 (16%)	43 (24%)	178
1978	99 (72%)	2(1%)	36 (27%)	137
1979	60 (73%)	12 (15%)	10 (12%)	82
TOTALS	638 (55%)	86 (07%)	435 (38%)	1159

*Total number of dwelling units
SOURCE: City of Roseburg, Building and Safety Department

TABLE H-2
HOUSING CONSTRUCTION
ROSEBURG UNINCORPORATED URBAN AREA
1974-1979*

Year	Single-Family	Mobile Home	Multi-Family	Total No. of Units
1974	14 (54%)	12 (46%)	--	26
1975	85 (66%)	23 (i8%)	20 (16%)	128
1976	113 (52%)	47 (22%)	54 (26%)	214
1977	111 (33%)	87 (26%)	139 (41%)	337
1978	101 (35%)	167 (57%)	22 (8%)	290
1979*	52 (42%)	49 (39%)	24 (10%)	125
TOTALS	476 (43%)	385 (34%)	259 (23%)	1120

*Through September 1979 only
SOURCE: Douglas County Building Department

Today, the same minimum priced new home costs around $50,000. If, from past trends, we assume the median family income in 1980 to be $18,000, it becomes readily apparent that a decreasing percentage of Oregon's households can afford even minimum priced housing. While the median income level increased by 12.5 percent over the last two years, the cost of housing has risen by at least 30 percent.

Less than 23 percent of Oregon's households and only 15 percent of its renters can afford a new home at this price. If we assume the home will be purchased with a 10 percent down payment, 30-year loan, at 10 percent interest, and annual property taxes and insurance premiums totaling 3 percent of home value, monthly housing payments would be $520. Therefore, a family needs an annual income of $24,950 to avoid paying in excess of 25 percent of their income even for a minimum priced house. Again, such payments are beyond the realistic means of 75 percent of Oregon's household.

To further illustrate escalating housing costs, sales prices of houses in Roseburg in 1973 are compared with housing costs in 1979. Table H-3 compares the prices of 331 single-family dwellings sold in the Roseburg area during a nine month period in 1973 with the prices of 683 single-family dwellings sold or offered for sale during the last six months of 1979.

TABLE H-3
COMPARATIVE SINGLE-FAMILY HOUSING COSTS
ROSEBURG AREA
1973 and 1979

Price Range	1973	1979
Under 10,000	43 (13%)	
10 -15,000	56 (17%)	
15 - 20,000	192 (28%)	
20 - 25,000	57 (17%)	1 (1%)
25 - 30,000	35 (10%)	1 (1%)
30 - 35,000	28 (9%)	--------
35 - 40,000	12 (4%)	22 (3%)
40 - 45,000	5 (2%)	31 (4%)
45 - 50,000		83(12%)
50 - 55,000		2 (1%)
55 - 60,000		2 (1%)
60 - 65,000		22 (3%)
65 - 70,000		264 (38%)
70 - 75,000		112 (16%)
75 - 80,000		40 (6%)
80 - 85,000		68 (10%)
85 - 90,000		28 (4%)
90 - 95,000		7 (1%)
TOTALS	331 (100%)	683 (100%)

SOURCE: Housing Market Analysis for Roseburg, 1973-independent Housing Market Analysis for Roseburg, 1979 – City of Roseburg, Planning Department

As can be seen in Table H-3, 85 percent of the single-family dwellings on the market in 1973 were priced below $30,000. By comparison, 80 percent of the single-family dwellings on the market in 1979 were priced above $50,000. As noted above, housing in excess of $50,000 is considered to be realistically beyond the means of 75 percent of Oregon's households. For those "priced out" of the single-family buying market, renting (usually multi-family dwellings) or the purchase of a mobile home are the most common alternatives.

The Rental Picture

Cost and availability of rental housing is a significant factor in Roseburg's housing situation. It is quite difficult to discuss rent levels of units so as to reveal an accurate picture because of the variety in age, location, and quality of rental units.

Nevertheless, a comparison of 1970 rent levels with rental costs in 1979 may be enlightening. Table H-4 lists rental cost of 1815 rental dwellings in Roseburg in 1970 and the rental cost of 369 dwellings offered for rent in 1979.

TABLE H-4
GROSS RENT OF RENTER-OCCUPIED UNITS
CITY OF ROSEBURG
1970 and 1979

Gross Rent	1970		1979
$40 & Less	5	(1%)	
40 - 59	140	(8%)	
60 - 79	339	(18%)	
80 - 99	368	(20%)	
100 - 149	791	(43%)	13 (3%)
150 - 199	148	(8%)	125 (34%)
200 - 249	24	(2%)	138 (37%)
250 - 299			48 (13%)
300 - 349			17 (5%)
350 - 399			16 (5%)
400 - 499			8 (2%)
450 - 499			4 (1%)
TOTALS	1815	(100%)	369 (l00%)

SOURCE:. U.S. Census - 1970
Housing Market Analysis for Roseburg, 1979
City of Roseburg, Planning Department

Table H-4 reveals, not surprisingly, that the cost of renting a dwelling has increased dramatically over the past decade. While 90 percent of all dwellings available for rent in 1970 were under $150 per month, 97 percent of the rental dwellings offered during the last six months of 1979 were priced above $150 and 26 percent above $250 per month. A more detailed breakdown of current housing cost is provided in the appendix.

The dwellings listed in Tables H-3 and H-4 are either single-family, duplex or multi-family (apartments) and do not include mobile homes. However, as previously noted, an increasing percentage of the urban area's housing stock is mobile homes; particularly in the unincorporated area.

Mobile Homes

Currently, there are 241 mobile homes in the City of Roseburg. This constitutes about 4.1 percent of the city's total housing stock, which compares with the Statewide average of about nine percent. During the past ten years this number of mobile homes within the city has remained relatively static, resulting in an annually decreasing percentage of the city's total housing stock. In the unincorporated area around the city, the mobile home picture is quite different.

A survey, conducted in January, 1980, revealed 1020 mobile homes in the unincorporated urban area, comprising 34 percent of the housing stock. Since 1974, 44 percent of all new single-family dwellings in the unincorporated urban area have been mobile homes. Statewide mobile homes have represented only 20 percent of all new housing starts since 1970. Clearly, mobile homes are an important housing resource in the Roseburg urban area. Perhaps the single most important factor effecting the mobile home housing market is cost. Although the inflationary rise in mobile home cost is generally keeping pace with conventional housing, the initial investment of the buyer is much less. Presently, a conventional new single-family dwelling is selling for about $30 per square foot, not including the cost of the lot. By comparison, a new mobile home can be purchased for $17 to $20 per square foot, depending on special construction features or options specified by the buyer.

The comparative cost of both conventional single-family and mobile homes is illustrated in Table H-5. These figures were derived from a housing market analysis conducted by the Roseburg Planning Department from June 1979 through January 1980 for the Roseburg urban area. It should be noted that a direct comparison of price cannot be considered accurate, since the price of the conventional home always includes the lot, while in many cases the mobile price is for the dwelling only. Generally, a standard, full-service (sewer & water), subdivision lot adds about $14,000 to the price of a single-family dwelling.

TABLE H-5
COMPARATIVE HOUSING COST
CONVENTIONAL DWELLING/MOBILE HOME
ROSEBURG URBAN AREA
June 1979 - January 1980

No. of Bedrooms	Average Price Conventional	Average Price Mobile Home
One Bedroom	41,144	6,895
Two Bedroom	44,486	20,813
Three Bedroom	67,894	28,607
Four Bedroom	85,246	36,492

In today's housing market, the mobile home represents the most significant opportunity for lower income persons to own their own single-family dwelling. Current conditions suggest that mobile homes will play an increasing role in providing lower cost housing.

Citizens and public agencies have raised numerous objections to mobile homes and mobile home living; particularly in urbanized areas. These prejudices have resulted in restrictions or outright prohibitions on the placement of mobile homes in many areas.

The City of Roseburg has not been an exception to this situation. For a number of years, mobile homes have not been allowed on individual lots within the City except in an approved mobile home subdivision. Mobile home subdivisions are conditionally permitted only in the Low Density Residential (LR) zone. As of this writing, the only parcel of land in the City zoned LR is the Masonic Cemetery. In the LR zone, the minimum lot size is 40,000 square feet. Such a large lot would obviously defeat the economic advantage of mobile home living and effectively prevent the introduction of mobile homes on individual lots within the City.

At the present time there are 8 mobile home parks in the City of Roseburg; containing 179 of the total 241 mobile homes within the incorporated area. Mobile home parks are conditionally permitted in the Two-Family Residential (R-2), Multi-Family Residential (R-3), Multi-Family and Professional Office (R-4), and General Commercial (C-3) zones. City standards for mobile home park development have required each

mobile home space to contain at least 5,000 square feet. Most jurisdictions which allow mobile' home parks require 1200 to 2500 square feet per space. The development of parks with mobile home spaces over 3000 square feet in size are usually found uneconomical. The City's low density requirement for mobile home parks has probably been the most significant factor in the lack of mobile home parks within the City of Roseburg. The inclusion of a mobile home overlay zone in the City's land use regulations would help provide a greater range of options to mobile home dwellers who desire to live in the urban setting. Such a concept would not permit scattered placement of mobile homes on individual lots; but rather would provide the possibility for zoning or rezoning of parcels of land for mobile home subdivisions with all the use limitations .associated with the most exclusive residential district. Mobile home residents would have the same level of residential protection currently offered to conventional home dwellers. An exclusive mobile home zone would also provide housing opportunities not presently available by allowing smaller lot sizes and less stringent development standards than required in other residential districts.

Condition of Housing Stock

Prior to determining the future housing needs of the Roseburg urban area, an understanding of the existing housing stock is necessary. Housing need can be identified by a number of indicators, including physical, economic and social. With regard to physical need, the most telling indicator is physical condition.

During January, 1980, a "windshield survey" was conducted by the City Planning Department to determine the physical condition of the existing housing stock. The urban area was divided into twenty survey units; each unit containing from 100 to 600 dwellings. The area covered by the survey is identified on Figure I in the appendix.
A number of housing surveys have been conducted in the Roseburg urban area in the past. Some have been limited to the City only, while others have covered the entire urban area. Conducted by a variety of agencies, each survey has been designed to identify certain characteristics of the area’s housing.

During the summer of 1958, the Bureau of Governmental Research and Services of the University of Oregon conducted a survey of existing land use in Roseburg. The survey concentrated on the physical condition of the City's housing.

The 1958 survey identified 3,622 dwelling units in the City. Of the total housing stock, 2,702 units or 73 percent were single-family. Another 256 units (7%) were two-family dwellings (duplexes), and 701 (19%) were multi-family units. Only three mobile homes were identified in the survey.

The 1958 survey classified the City's housing stock into six categories of physical condition. Of the total housing stock, 8.7 percent were found to be "new, or nearly new structures." Sixteen percent were classified as "good, older structure, well maintained," while 48 percent were "fair structures in need of surface repairs." Another 24 percent of the City's housing was found to be "fair structures in need of major reconditioning." The remaining three percent were classified as either "substandard" or "dilapidated" structures.

The U.S. Census taken in 1970 included a rather detailed analysis of housing conditions. According to this source, a housing unit was considered substandard if it was characterized by one or more of the following indicators:

1. no heating system;
2. no plumbing system;
3. a heating system which consisted solely of room heaters (gas, oil or kerosene) not connected to a flue, fireplaces, or wood burning stoves; or
4. a plumbing system which lacked one or more of the following: hot water, indoor toilets, or bathing facilities reserved for the exclusive use of a single household.

Unfortunately, the census data is of limited value because it fails to take into consideration numerous substandard indicators, such as deteriorating foundations, roofs, walls, etc. More importantly, the data are now 10 years old.

In 1976, the Umpqua Regional Council of Governments (URCOG) conducted a household survey of the greater Roseburg urban area. Quite detailed questionnaires were mailed to over 6,000 households. The survey attempted to make findings in a number of areas relating to the housing situation, including: household income, dwelling type, dwelling age, dwelling value, physical condition, rental costs, and tenure.

With 21 percent of the households responding to the survey, URCOG was able to obtain a fairly reliable picture of the urban aerials housing situation as perceived by its residents. The survey concluded that 35 percent of the area's housing was considered "Excellent"; 45 percent of the area's housing was considered "Good"; 17 percent "Fair"; and, 3 percent "Poor."

While past housing surveys provide insight into the character of Roseburg's housing, none have evaluated the physical soundness of structures on the basis of established criteria. The 1980 survey was an attempt to do so.

The factors that were considered in evaluating the exterior condition of houses were divided into major and minor factors. The major factors were the condition of the roof, foundation, walls/siding, porch, and paint.

The minor factors taken into consideration were the condition of the windows, screens, doors and chimney.

Each dwelling unit was given one of four ratings as follows: standard, substandard minor, substandard major, and dilapidated. Following is the definition for each of the four possible ratings.

(1) STANDARD - A dwelling unit that satisfies a majority of the evaluating criteria. One defect may exit, but it is one that can be corrected by the average homeowner in the course of regular maintenance.

(2) SUBSTANDARD MINOR - A dwelling unit that is basically sound but suffers from neglect in at least two minor factors or one major factor of consideration. These defects are still of the category that the average homeowner can repair them.

(3) SUBSTANDARD MAJOR - A dwelling unit in need of extensive repair in either the minor or major factors of consideration. These repairs are beyond the capabilities of the average home onwer, and could not be rectified in regular home maintenance. Extensive rehabilitation efforts would be required to bring these structures up to a standard rating.

(4) DILAPIDATED - A dwelling unit suffering from so many efficiencies that it is unsuitable for habitation and economically unfeasible to rehabilitate. Consideration should be given to removing them from the community's housing stock.

MOBILE HOMES:

(1) STANDARD - mobile home in good condition with proper tie-downs and acceptable skirting.

(2) SUBSTANDARD MINOR - lacking proper tie-downs or acceptable skirting or inadequate in one of the other evaluating criteria.

(3) SUBSTANDARD MAJOR - not properly tied down and skirted and inadequate in one of the other evaluating criteria.

(4) DILAPIDATED - not suitable for habitation due to its overall deterioration.

The primary limitations to the windshield survey were: (1) many physical condition problems were not always apparent to the surveyor; and (2) only physical condition problems on the outside surfaces of the structure could be identified.

Within the confines of the survey area, a total of 8908 dwelling units were inventoried; 5864 within the City of Roseburg and 3044 in the unincorporated area. Generally, the urban area's housing stock was found to be in very good condition. Of the 5,424 single-family, conventional dwellings within the survey area, 88 percent fell within the STANDARD rating (see rating definitions above). Another 10 percent were found to be SUBSTANDARD MINOR, one percent SUBSTANDARD MAJOR, and less than one percent were considered to be DILAPIDATED.

Mobile homes make up 14 percent of the urban area's total housing stock. Of the 1261 mobile homes inventoried in the survey area, 79 percent are located in mobile home parks. -Overall, the area's stock of mobile homes were found to be in poorer physical condition than the stock of conventional single-family dwellings. Twenty

percent of all mobile homes situated on individual lots were found to be SUBSTANDARD.

While there was no attempt to systematically evaluate the physical condition of all mobile homes within parks, it was generally noted that the percentage of SUBSTANDARD mobile homes tended to increase proportionately with the age of the park. Relatively new mobile home parks contained very few SUBSTANDARD units. In two selected older parks, over 80 percent of the units were found to be SUBSTANDARD.

Multi-family dwellings include duplexes (2@units), apartments (3 or more units), and condominiums or townhouses. A total of 2223 multi-family dwellings were found in the housing survey area, of which nearly 70 percent are located in the City of Roseburg. Like the urban aerials single-family housing stock, multi-family structures were found to be in very good condition, with over 85 percent rated STANDARD and less than one percent were found to have major deficiencies. Table H-6 provides a summary of the housing survey findings. A more detailed analysis of the survey by sub-area is provided in the appendix to the Housing Element.

TABLE H-6
1980 HOUSING SURVEY
PHYSICAL CONDITION
SUMMARY
ROSEBURG URBAN AREA

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	4776	580	54	14	432	76	4	1354	215	12	123	-	-	212	52	1	-	996
Percent of Dwellings in Class	88%	11%	1%	*	84%	15%	1%	85%	1½%	1%	100%	-	-	80%	20%	*	-	100%
Total Dwellings in Class	5424				512			1581			123			265				996
Percent of all Dwellings	61%				5.7%			18%			1.3%			3%				11%
Total Dwellings in Survey Area	8901																	

*Less than one percent

HOUSING NEED

Crowded Conditions

Crowded housing conditions do not appear to be a significant problem in the Roseburg urban area. The accepted indicator of crowded conditions is the number of persons per room. The 1970 Census reported that Roseburg had only 3.9 percent of its housing with more than one person per room. This compares to a state average of 5.3 percent. However, in Roseburg the vacancy is low. When very low vacancy rates occur, it implies inadequate choice amongst housing consumers, restrictions on location, high cost/rent levels, etc. These conditions all effect the potential for crowding.

Crowded housing conditions can generally be avoided when the vacancy rate is at an acceptable level.

Excessive Rent

One of the most significant indicators of housing need in Roseburg is excessive rent,* or the portion of income a household pays for shelter. It is generally agreed that if a household is paying more than 25 percent of its gross income for rent, it is paying too much. The average renter household spends about 15 percent of its gross income on gross rent (including utilities).

*The term, "excessive rent," refers to the amount of rent a household pays in proportion to its income. The term does not imply that landlords are charging higher than "fair market" rent. Many households fall within the "excessive rent" category by choice.

According to the U.S. Census, the median family income for Roseburg in 1970 was $9,754. The median family income for Douglas County as a whole was $8,670. The latest median income figure available is for 1978 and is for Douglas County only. Therefore, an interpolation of Roseburg's 1980 figure must be drawn from the 1978 County median income of $15,312. Of course, to do so requires the acceptance of certain assumptions. First, we know that Roseburg's 1970 figure was 12.5 percent higher than that for the county. If we assume that the percentage difference has remained constant during the past decade, we can conclude that Roseburg's 1978

figure is also 12.5 percent above the county's 1978 figure. This then computes to an estimated 1978 median income of $17,226 for Roseburg. For the purposes of computing rent to income ratios, a 1980 median family income of $18,000 will be used for Roseburg. Data from the 1980 Census will undoubtedly require some adjustment to this estimate once it becomes available.

The 1970 U.S. Census reported that 42 percent of Roseburg's renters were paying in excess of 25 percent of their incomes for shelter, and 25 percent were paying rents in excess of 35 percent of their income. These income to rent relationships are shown in Table H-7.

The 1970 Census income to rent ratio is the only data currently available for Roseburg. The lack of knowledge of current conditions poses a handicap to understanding housing needs.

It is known that while the median income for Roseburg has risen by 85 percent since 1970, housing costs have rapidly outpaced income. Over the past decade, the number of families able to purchase a new home has been reduced by about one-half. Knowing what we do about today’s housing market, it is easy to conclude that a significantly higher percentage of Roseburg's households who rent, spend an excessive amount of their income on shelter. Although the lack of current data prevents substantiation, an estimate that somewhere between 50 and 60 percent fall within this category is probably realistic.

Traditionally, a community's high rent structure has been tied to a scarcity of housing units--that is, when a community's housing stock is under built. Households with low incomes are hardest hit, as they are forced to take what little housing is available and pay more for rent than they can reasonably afford. This was almost certainly the case in 1970 in Roseburg.

TABLE H-7
RENTER-OCCUPIED UNITS, BY GROSS RENT
AS PERCENTAGE OF INCOME, 1970
ROSEBURG, OREGON

As % of Income	Less Than $2,000	$2,0000 2,999	$3,000-4,999	$5,000-6,999	$7,000-9,999	$10,000-14,999	$15,000-24,999	$25,000 & Up	Total
Less Than 10%					7	59	45	15	115
10-14%			12	40	130	166	20		368
15-19%			28	81	151	94			354
20-24%	5	12	31	73	60	19			200
25-35%	6	39	129	87	12	6			279
35% and Over	304	93	56	19	9				481
Rent Not Compared	29	4	7	5	11	10	4		70
TOTAL	344	148	263	305	380	354	58	15	1,867

While the present low vacancy rate does have an effect on housing cost, it is probably less of an influencing, factor than it was ten years ago. Today, the cost of constructing, maintaining or rehabilitating housing is much higher in relation to income than it was in 1970. An increase in the vacancy rate would not reduce the cost of new construction. Landlords would still have to charge "fair-market" rent. In fact, a higher vacancy rate could have a negative effect on the area's housing stock.

Generally, in a "tight" housing market there is more incentive to improve or rehabilitate existing housing, particularly if the cost of new construction is high. The result would be general improvement in the physical condition of the overall housing stock. Unfortunately, the cost of the rehabilitated housing stock would rise, with a corresponding decrease in the availability of lower cost housing for low income groups.

The replacement of the city's older housing stock with new construction has contributed to the higher rent structure. In 1970, for example, 6.7 percent of Roseburg's housing stock was classified a new construction,* whereas in 1980, new construction represents 12 percent of the City's total housing stock. The removal of older housing contributed significantly to this increase. New housing must be provided, of course, but older housing units must also be preserved to ensure the availability of housing at reasonable costs for all income ranges.

*No more than five years old.

Future Housing Need

To meet expected population increases and to bring the urban area's housing stock up to an acceptable supply level, additional housing units must be provided and the area's older housing stock must be preserved.

In order to project future housing needs, the projected number of future households must be estimated. Projected households are determined by converting projected population to households. This is done by dividing projected population by projected average household size.

Based on 1970 Census data, as well as know trends, the estimated average 1980 household size for Roseburg is 2.9 persons. This represents a decline from the 1970 average household size of 3 persons. During the next two decades the trend towards smaller families, in addition to a high divorce rate, is expected to reduce average household size to about 2.5 persons. Therefore, when projecting future households, it is necessary to take this trend into account. Household size projections are based on a one-tenth percent decline every five years. Projected total household needs to the year 2000 are shown on Table H-8.

While projecting the community's future housing needs is an essential requisite to planning for residential growth, an understanding of the character or makeup of future housing is equally important. As we know, housing takes many forms; whether it be the conventional single-family dwelling, mobile home, condominium, apartment or duplex. Each type of dwelling unit contributes to the area's overall housing needs, providing a range of opportunities for all income levels, preference in lifestyle, and choice of locations.

In a housing attitudes survey conducted by the Umpqua Regional Council of Governments in 1976, over 86 percent of the respondents expressed a desire to live in a conventional single-family dwelling as opposed to other types of housing. In January of 1980, conventional single-family homes made up only 61 percent of the urban area's housing stock, and in the last ten years, less than half of all new housing constructed has been single-family.

Most of the economic factors which prevent people from having a freer choice in the housing market are beyond the control of the City. However, the city does have the responsibility, and, to a significant degree, the ability to ensure the availability of sufficient land to accommodate future housing demands.

TABLE H-8
PROJECTED NEEDED HOUSEHOLDS
ROSEBURG URBAN AREA
1980-2000

Roseburg Urban Area Population Increase		Housing Starts					
Time Period	Increase	Household Size	Projected Starts	Household Size Adjustment*	Vacancy Rate Adjustment*	Yearly Demo Replacement***	Total Projected Housing Starts Needed
1980-1985	3870	2.8	1382	362	44	53	1841
1986-1990	4397	2.7	1629	450	52	64	2195
1991-1995	4734	2.6	1820	558	58	77	2513
1996-2000	5893	2.5	2357	690	75	93	3215

* Based on decreasing household size of existing housing stock and current population level.
** 3.2 percent of new starts to ensure a “fair market” vacancy rate of two percent for single-family and sixe percent for multi-family residences.
*** One-half of one percent of total housing stock.

Note: All figures based on 1980 estimated Urban Area Population of 25, 435, at 2.9 persons per household, equaling an estimated 1980 Urban Area Housing stock of 8,901 units.

While questions concerning location, density, levels of services and specific development standards are dealt with in other elements of the Comprehensive Plan, it is appropriate to examine the questions of the urban area's future housing "mix." That is, what the makeup of different housing types will be over the next two decades. Of course there is no way to accurately predict just what will occur in the housing market over the next 20 years period. Interest rates may go up or down. The gap between construction costs and income levels may continue to widen, or we may experience a slow-down in the inflation rate. Attitudes about life-style and dwelling preference may undergo dramatic changes for a variety of reasons. Despite all of these uncertainties, the basic need for shelter will continue to be of the highest priority.

Housing Alternative

An examination of current trends in housing type provides some insight to the questions of future housing alternatives. Statistics from a number of sources show that during the early 1970s there was an acute shortage of multi-family dwellings in the Roseburg urban area. As the cost of new houses began to rise steeply, the demand for lower cost alternatives to the single-family dwelling also increased dramatically. Between 1971 and 1977, 41 percent of all new housing constructed in the urban area was multi-family. Beginning in 1977, building activity in the multi-family market began to drop significantly; accounting for an average of only 16 percent of all new housing starts during 1978 and 1979.

Mobile homes have been playing an increasing role in providing alternatives to the conventional single-family home. While restrictive zoning laws have discouraged the placement of new mobile homes within the incorporated area, their number has rapidly grown in the urban area outside the city. In 1975, mobile homes comprised 18 percent of all new dwellings in the unincorporated urban area. In 1976 they contributed 22 percent of the new dwellings, up to 26 percent by 1977, and peaking at 57 percent in 1978.

While the vast majority of the urban area's mobile homes are located in mobile home parks, a trend toward their placement on individual lots is emerging. In the last five years, the county has approved several mobile home subdivisions. The type of

dwelling on each lot is the only feature which distinguishes these subdivisions from the conventional subdivision and provides the mobile home owner with the opportunity to own a residential lot in an urban setting while benefiting from the lower cost of the dwelling. High development standards ensure the mobile home subdivision resident of the same residential zoning protection offered to conventional homes in conventional subdivisions.

Trends in single-family construction are difficult to detect. Construction statistics are only available since 1970 in the city, and. since 1974 in the county, and show marked fluctuation from year to year. However, on the average, from 1975 through 1978, single-family dwellings have accounted for an average of 52 percent of all new housing starts. If mobile homes placed on individual lots are included within the general category of single-family dwellings, the average is increased to about 70 percent. These figures compare very closely with statewide averages over the same period of time. Since 1970, conventional single-family units have represented 48 percent of new additions to the state's total housing stock. Multi-family units have contributed 32 percent and mobile homes 20 percent.

Based on local, as well as statewide trends during the past decade, a breakdown of the urban area's future housing makeup can be estimated and the number of dwellings within each class can be projected.

Table H-9 projects future needed housing by type, based on the assumption that new housing starts will be 62 percent single-family (conventional and mobile homes), and 38 percent multi-family (duplex, mobile home park, apartment, and condominium). This assumption carries with it the necessity to closely monitor actual building trends in order that future changes in the housing market are provided for in the Comprehensive Plan.

TABLE H-9
PROJECTED MAKEUP OF HOUSING
ROSEBURG URBAN AREA
1980-2000

	SINGLE-FAMILY			MULTI-FAMILY		
Time Period	Convt. (55%)	M.H. (7%)	Duplexes (7%)	Multi-Family (20%)	Mobile Home Parks (11%)	Total Housing Starts
1980-1985	1013	128	128	368	204	1841
1986-1990	1207	154	154	439	241	2195
1991-1995	1382	176	176	503	276	2513
1996-2000	1768	225	225	643	354	3215
TOTAL	5370	683	683	1953	1075	9764

Housing Assistance

There are a number of factors which tend to restrict the housing opportunities of lower income households. Some of these barriers are a result of local ordinances and others are a result of the housing market in general. The City of Roseburg does not have ordinances whose specific intent is to restrict the housing opportunities of low income families, although indirectly, in an attempt to further orderly planning, some ordinances have had that effect. Nevertheless, the city has taken, and will continue to take, positive steps towards increasing housing opportunities for low and moderate income households.

It is not the policy of the City of Roseburg to serve in the role of a housing provider; however, the city does encourage and cooperate with agencies which have such a responsibility, particularly the Douglas County Housing Authority.

The Douglas County Housing Authority provides lower rent housing opportunities for elderly and nonelderly families whose annual incomes are within the established maximum income limits.

The Housing Authority manages rental housing which it has constructed in Roseburg, Winston, Riddle, Oakland, Reedsport and Yoncalla. Sixty such dwelling units are located in the City of Roseburg. Units are assigned on the basis of family composition. All buildings are duplex and range from one bedroom to four bedroom units. All one bedroom units are reserved for elderly persons and disabled and handicapped persons, as defined in the Social Security and Housing Acts.

All costs of management, maintenance and utilities must be met from rental income. Principal and interest on bonds, which can not be met from receipts, are covered by a limited subsidy from the Federal Government. No local or state tax revenues are available to the Authority for any purpose. All housing is owned and operated by the Housing Authority. No federal ownership is involved. The powers of the Housing Authority are vested in a Board of Commissioners appointed by the Douglas County Board of Commissioners. Each Commissioner is appointed for a five year term. The Housing Authority of Douglas County was created under Oregon State enabling legislation and derives its powers of authority from State law.

The Douglas County Housing Authority has taken several steps to broaden housing opportunities for lower income households. This agency, after families have been certified as being eligible for housing assistance, spends time with each prospective tenant explaining the program and the necessary paperwork involved, provides applicants with instruction on interviewing skills, and gives lessons on how to find vacancies in the tight market which currently exists in Douglas County for rental units.

In addition, the Douglas County Housing Authority is trying to increase the level of communication between itself and local landlords in order to gather additional information about vacancies so that low income households needing assistance can be alerted. In taking these steps the Douglas County Housing Authority, which has no

residency requirements or preferences, is attempting to increase the housing opportunities for low income households.

In September 1977, the Douglas County Board of Realtors signed an agreement with HUD stating that the Board would act in compliance with Title VI of the 1964 Civil Rights Act, Title VIII of the 1968 Civil Rights Act, as amended, and Executive Order 1106 3. A committee was formed by the Board of Realtors to investigate any complaints in order to further fair housing opportunities in compliance with these policies. To date no complaints have been brought before this committee. This action has helped to ensure that discrimination in the sale, rental, and financing of housing does not occur in Douglas County.

FINDINGS

1. The Roseburg urban area has experienced rapid growth in employment opportunities, population and housing in recent years. The impact of this growth on housing has resulted in low vacancy rates, increased housing cost and less choice in the housing market.

2. The residential vacancy rate in the urban area declined from 5.1 percent in 1970, to 1.3 percent in 1978. This low vacancy rate has represented a key factor limiting housing opportunities.

3. Real housing costs are increasing more rapidly than real incomes. The average annual rise in price for single-family dwellings averaged 13 percent between 1972 and 1977. During a recent 18 month period, prices rose at an annual rate of 17.5 percent. The median income level increased by only 12.5 percent between 1977 and 1979.

4. Rapidly increasing housing costs are resulting in a higher demand for lower cost housing. From 1970 through 1974, single-family dwellings represented 66 percent of all new housing starts; from 1975 through 1979 single-family dwellings comprised 52 percent of all new starts in the Roseburg urban area.

5. In 1980, mobile homes made up 14 percent of the urban area's total housing stock. While the number of mobile homes in the City of Roseburg has remained relatively static, mobile homes have accounted for 44 percent of all new housing in the unincorporated urban area since 1974, as compared to about 20 percent statewide.

6. While the vast majority (80%) of the mobile homes in the urban area are located in mobile home parks, a trend toward their placement on individual lots is emerging. The demand for this kind of housing alternative will probably continue to increase.

7. The demand for multi-family housing has been very high during the past decade. Between 1971 and 1977, 41 percent of all new dwelling units constructed in the Roseburg urban area were multi-family. During the last 3 years (1977-79), multi-family construction has decreased dramatically to about 16 percent of all housing starts. In 1980, multi-family dwellings comprise 18 percent of the urban area's total housing stock.

8. The 1980 housing condition survey revealed that, overall, the physical condition of the urban area’s housing stock is good. Less than one percent of the total housing stock suffers serious defects. However, about 10 percent of all dwellings are in need of some attention to bring them up to a STANDARD condition.

9. Most incidents of SUBSTANDARD housing occur within the City of Roseburg where the urban area's oldest housing is concentrated. In the unincorporated area, housing deficiencies were most often identified in older mobile home parks.

10. Crowded housing conditions do not appear to be a significant problem in the Roseburg urban area. In 1970, the U.S. Census reported only 3.9 percent of all housing with more than one person per room, as compared to the statewide average of 5.3 percent at that time. Lowered vacancy rates and increased costs have increased the incidence of crowded conditions to some extent, but these conditions are probably still within normally accepted limits.

11. Median family income in the Roseburg urban area is estimated to be about 12.5 percent higher than the county-wide median family income. The improved economic status of the urban area's residents generally allows greater freedom in the housing market than is possible in other areas of Douglas County.

12. The replacement of the area's older housing stock with newer construction is contributing to higher housing costs by reducing the number of lower cost housing opportunities.

13. There is a trend toward smaller and smaller household size. In 1970, the average household size in the Roseburg urban area was three persons; in 1980, it is estimated to be 2.9 persons. During the next two decades the trend toward smaller families is expected to reduce average household size to 2.5 persons by the year 2000. Decreasing household size will require the urban area's housing stock to grow at a faster rate than population

14. Based on known historical trends, future additions to the urban area's housing stock is expected to be composed of 55 percent conventional single-family; 15 percent mobile homes; and, 30 percent multi-family (both owner-occupied and renter-occupied).

15. By the year 2000, the Roseburg urban area is expected to need a total housing stock of 18,378 dwelling units. This will require the addition of 5370 conventional single-family dwellings; 1758 mobile homes; and, 2636 multi-family units over the next 20 years.

ASSUMPTIONS

1. Household size will continue to decline, but should level off at 2.5 persons per unit. The 25 to 45 age group will register the greatest numerical increase over the next two decades. While larger households are typically associated with this group, the trend toward smaller families, in addition to a high divorce rate, will keep household size at about 2.5 persons

2. Demand for ownership units will continue to be strong. However, detached single-family units will become less attractive due to high costs of purchase and maintenance. As was shown, many Oregonians are unable to afford single-family detached houses. As the gap between incomes and housing costs widens, the demand for mobile homes, condominiums and attached (common wall) ownership units will increase.

3. High land costs will necessitate increased densities in the future. Single-family lot costs, which presently (1980) range between $12,000 and $18,000, depending on the level of services available, will continue to escalate if the standard of 7,500 to 10,000 square foot lots is maintained. Encouraging greater densities and smaller lots may slow down this trend.

4. Mobile home demand will remain strong. Their attractiveness is due to affordability in relation to conventional single-family units.

5. Decreasing family size, increasing construction costs, and escalating energy costs will cause a decline in dwelling size (square footage).

6. Because per capita incomes have not kept pace with housing and energy costs, the number of two income households has increased. This fact is reflected by the increase in the County's labor force participation rate. Currently, the rate is

approximately 45 percent. Over the next two decades, it should climb slightly and level off between 48 and 49 percent.

7. Ownership housing will continue to be a good investment for Oregonians, as long as inflation in housing prices keeps pace with, or exceeds, the general inflation rate. In recent years, many investors have entered the single-family market to take advantage of 16 to 18 percent annual inflation rates in housing. As this rate drops in relation to the overall inflation rate, the number of investors will taper off.

8. If housing costs continue to increase at present rates, a greater proportion of Oregon's households will be in need of federal or State housing assistance.

GOALS, OBJECTIVES AND POLICY STATEMENTS FOR HOUSING

Goal

To ensure the opportunity for, and the provision of, safe, affordable housing in sufficient numbers, types, size and locations to meet the needs of all citizens in the Roseburg urban area.

Objectives

1. To coordinate residential land use and housing planning with other elements of the Comprehensive Plan.

2. To provide residential areas that offer a variety of housing densities, types, sizes, costs, and locations to meet projected demand.

3. To locate residential development in relation to the availability of employment, commercial services, public utilities and facilities and transportation modes.

4. To provide for higher residential densities in the urban area to encourage a more compact urban growth form.

5. To provide for compatible and functional mixed use development (residential and nonresidential).

6. To protect and maintain existing and future residential neighborhoods.

7. To encourage conservation of existing housing by rehabilitation of substandard units and other methods, such as relocation of existing structures, conversion of single-family structures to multi-family structures, and conversion of nonresidential structures to residential use, provided such actions reflect planned densities for the subject area.

8. To encourage and support development of housing units for low and moderate income households.

9. To increase housing opportunities for those with specialized needs.

10. To encourage cooperation between public, private and consumer sectors of the area's housing market.

Policies

1. New residential development shall be coordinated with the, provision of an adequate level of services and facilities.

2. Residential land use designations specified in the Comprehensive Plan within the City limits shall be zoned in accordance with such designation. Residential land use designations outside the City limits shall be implemented in the manner prescribed by an Urban Growth Management Agreement jointly adopted by Douglas County and the City of Roseburg.

3. The City and County shall ensure an adequate supply of land suitable for development which is zoned for low, medium and high density residential uses. Determination of an adequate supply shall be based on two to three years projections of demand. The City and County shall annually monitor and analyze population projections and projected housing demand to provide a reliable basis for land use decisions and to assure sufficient residential land to maintain a balance between supply and demand.

4. Developers of tracts of land and shall be encouraged to use the Planned Unit Development (PUD) process in order to permit the application of new technology, greater freedom of design, land development and ownership patterns, greater population densities and economy of land use, thereby promoting a harmonious

variety of uses, a more efficient use of public facilities, and the creation of attractive, healthful and stable environments for living, shopping or working. The procedural and substantive requirements for processing an application shall be the minimum necessary to adequately evaluate the proposed development, and shall be coordinated with all other required reviews.

5. In order to provide greater flexibility and economy of land use, the Zoning Ordinance shall allow variable lot sizes in single-family residential subdivisions subject to the approval of the reviewing body. A maximum of 30% of the lots in a new subdivision may contain less than the minimum lot area allowed in the applicable zone, but the average size of all lots in the subdivision must be at least the size specified for the zone. In addition, no lot shall be less than 85% of the minimum lot size established for the applicable zone.

6. The Zoning Ordinance shall allow new single-family residential subdivision proposals to designate a maximum of 25% of the lots as duplex lots subject to the approval of the reviewing body. Such duplex lots shall contain at least 10% more lot area than the minimum lot area specified by the zone designation. Duplex lots shall allow duplex or single-family dwellings and the lot designations shall be reviewed by the Planning Commission concurrently with review of the tentative plats. After final subdivision approval, lots designated for duplexes will be considered fixed and may be changed only upon approval of the Planning Commission after adequate notification of surrounding property owners.

7. The Zoning Ordinance shall provide for site ownership of mobile homes in areas designated Residential in the Comprehensive Plan. Site placement of mobile homes will be allowed only as outright uses in a Mobile Home Overlay Zone, which shall be a superimposed zone applied over the primary residential zone. The Zoning Ordinance shall contain specific standards to assure that mobile home sites will be developed in a manner which is well planned and harmonious with surrounding land uses. Upon annexation of land areas on which mobile homes were permitted uses under the County's zoning regulations, except for

those areas indicated on Figure H-2, the City shall automatically apply the Mobile Home Overlay Zone if the underlying zone is residential.

8. Mobile home parks provide a needed housing alternative for residents of the Roseburg area and are most appropriate in areas designated Medium Density Residentia7 in the Comprehensive Plan, although they may be allowed in other areas if compatible with the development in the vicinity. Implementing ordinances shall contain specific requirements to assure that mobile home park developments will be well planned, internally consistent, and Harmonious with surrounding land uses.

9. Owner-occupied multi-family dwelling units (condominium and townhouse) shall be encouraged. Commonly accepted ownership patterns such as condominiums or townhouses shall be an out-right permitted use in multi-family zones of the Zoning Ordinance.

10. In order to enhance the living environment in multiple family development, the zoning ordinance shall contain specific standards which insure the adequate provision of open space, landscaping, recreation and play areas, and safe and convenient access. Density bonus techniques should also be considered as a means of inducement to further enhance multiple family developments as safe, healthy and desirable places in which to live.

11. The City shall assure sufficient renter-occupied multi-family housing opportunities by ensuring that an adequate supply of developable land is zoned for such use.

12. The Zoning Ordinance shall specify density ranges which are consistent with the density categories established in the Comprehensive Plan.

13. The City shall cooperate with the Douglas County Housing Authority, regional agencies, State Housing Division, HUD FMHA and other agencies for the provision of moderate to low income housing and maintenance and rehabilitation activities in the City. Housing units pursuant to the above shall not be

concentrated in any one area, but shall be dispersed throughout the City. The City shall participate in the Douglas County Housing Opportunity Plan.

14. The City of Roseburg shall encourage and assist the Umpqua Region Council of Governments in maintaining the Housing Opportunity Plan to insure the housing needs of moderate and low income households are identified.

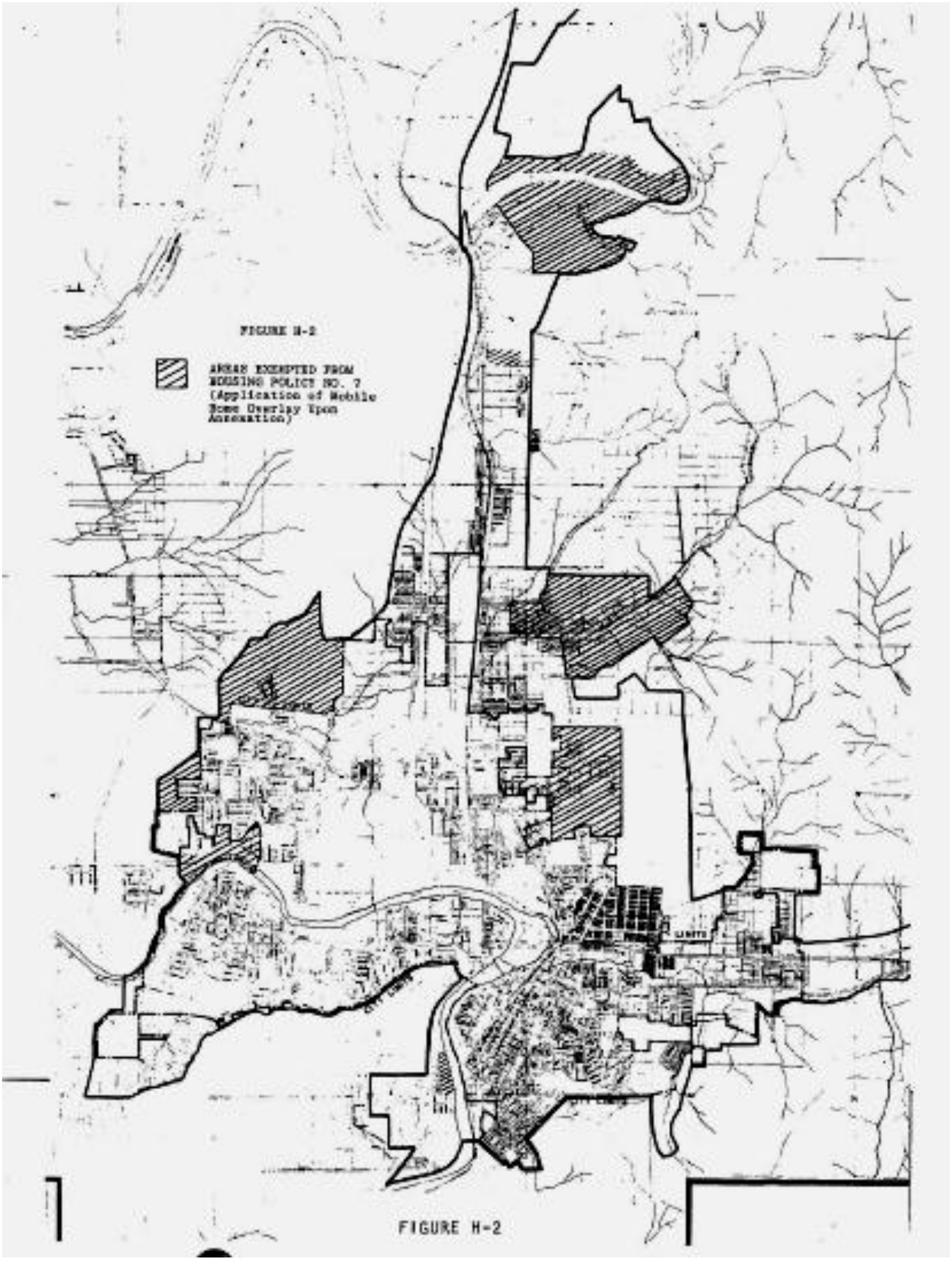


FIGURE H-2
AREAS EXEMPTED FROM HOUSING POLICY NO. 7 (Application of Mobile Home Overlay Upon Annexation)

FIGURE H-2

HOUSING MARKET ANALYSIS
ROSEBURG URBAN AREA
June 1979-January 1980

Apartments for Rent

Month	Type or # of Bedrooms	Average # of Units per week	Average Rent
June 79	Bach/Studio	5	$ 152.52
	1 Bedroom	8	180.02
	2 Bedroom	17	227.58
	3 Bedroom	2	295.00
July 79	Bach/Studio	3	165.73
	1 Bedroom	7	181.92
	2 Bedroom	16	234.73
	3 Bedroom	1	255.83
Aug 79	Bach/Studio	3	144.39
	1 Bedroom	9	197.05
	2 Bedroom	11	249.52
	3 Bedroom	1	369.38
Sept 79	Bach/Studio	4	144.60
	1 Bedroom	7	171.95
	2 Bedroom	7	238.70
	3 Bedroom	1	270.00
Oct 79	Bach/Studio	4	155.77
	1 Bedroom	6	186.08
	2 Bedroom	8	247.81
	3 Bedroom	1	328.83
Nov 79	Bach/Studio	6	149.95
	1 Bedroom	6	182.80
	2 Bedroom	12	238.92
	3 Bedroom	1	293.75
Dec 79	Bach/Studio	3	159.53

Houses for Rent

Month	Type or # of Bedrooms	Average # of Units per week	Average Rent
June 79	1 Bedroom	2	$ 182.90
	2 Bedroom	8	254.14
	3 Bedroom	5	338.45
	4+ Bedroom	1	335.00
July 79	1 Bedroom	3	174.79
	2 Bedroom	12	184.54
	3 Bedroom	6	235.25
	4+ Bedroom	1	312.50
Aug 79	1 Bedroom	3	174.98
	2 Bedroom	6	250.31
	3 Bedroom	6	402.02
	4+ Bedroom	1	442.50
Sept 79	1 Bedroom	2	193.67
	2 Bedroom	7	252.28
	3 Bedroom	2	375.40
	4+ Bedroom	2	461.67
Oct 79	1 Bedroom	2	187.50
	2 Bedroom	8	250.40
	3 Bedroom	3	327.96
	4+ Bedroom	1	450.00
Nov 79	1 Bedroom	2	200.83
	2 Bedroom	6	255.06
	3 Bedroom	5	360.56
	4+ Bedroom	1	341.25
Dec 79	1 Bedroom	5	175.46

	1 Bedroom	7	181.79		2 Bedroom	12	245.08
	2 Bedroom	13	236.02		3 Bedroom	6	361.76
	3 Bedroom	1	366.67		4+ Bedroom	1	481.67
Jan 80	Bach/Studio	4	169.32	Jan 80	1 Bedroom	5	182.83
	1 Bedroom	10	194.28		2 Bedroom	12	247.21
	2 Bedroom	15	242.86		3 Bedroom	5	325.07
	3 Bedroom	1	365.00		4+ Bedroom	1	424.37

HOUSING MARKET ANALYSIS
HOUSES FOR SALE
ROSEBURG URBAN AREA
June 1979-January 1980

Month	No. of Bedroom	Average No. of Units	Average Price
June 79	one	2	$ 56, 250.00
	two	20	45,374.50
	three	68	66,282.92
	four	24	73,842.75
July 79	one	1	23,400.00
	two	24	47,838.94
	three	75	65,884.34
	four	23	81,557.07
Aug 79	one	1	29,812.50
	two	19	42,347.83
	three	65	66,878.89
	four	22	80,695.71
Sept 79	one	1	37,490.00
	two	15	46,026.67
	three	56	67,089.11
	four	13	85,674.26
Oct 79	one	1	50,166.67
	two	21	36,761.30
	three	22	63,191.97
	four	7	108,964.23
Nov 79	one	--	---
	two	12	44,693.33
	three	47	70,659.51
	four	15	87,843.19
Dec 79	one	1	49,750.00
	two	13	47,262.12
	three	40	70,984.95

	four	12	82,998.63
Jan 80	one	--	---
	two	11	45,587.95
	three	44	80,396.41
	four	11	80,396.41

HOUSING MARKET ANALYSIS
ROSEBURG URBAN AREA
June 1979-January 1980

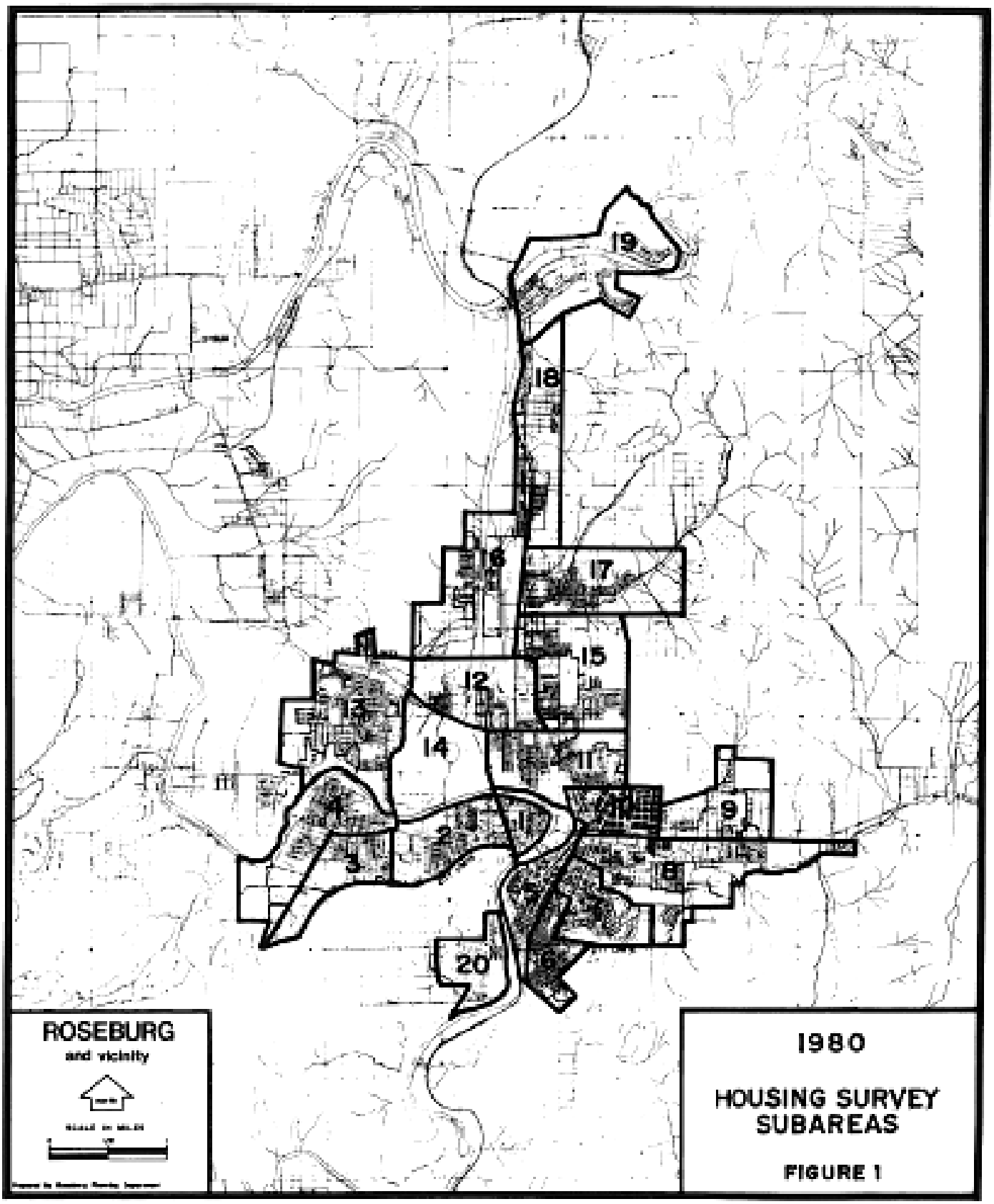
Mobile Homes for Rent

Month	Type or # of Bedrooms	Average # of Units per week	Average Rent
June 79	1Bedroom	1	$ 115.00
	2 Bedroom	1	226.87
	3 Bedroom	1	250.00
July 79	1 Bedroom	1	178.33
	2 Bedroom	1	218.75
	3 Bedroom	1	185.00
Aug 79	1 Bedroom	1	162.22
	2 Bedroom	1	218.75
	3 Bedroom	1	304.17
Sept 79	1 Bedroom	1	171.67
	2 Bedroom	2	188.17
	3 Bedroom	1	240.00
Oct 79	1 Bedroom	1	115.00
	2 Bedroom	2	222.50
	3 Bedroom	1	275.00
Nov 79	1 Bedroom	1	131.67
	2 Bedroom	3	218.33
	3 Bedroom	1	350.00
Dec 79	1 Bedroom	2	130.67

Mobile Homes for Sale

Month	Type or # of Bedrooms	Average # of Units per week	Average Rent
June 79	1 Bedroom	3	$ 2,353.89
	2 Bedroom	13	13,966.62
	3 Bedroom	8	28,112.62
	4+ Bedroom	1	35,350.00
July 79	1 Bedroom	2	3,037.50
	2 Bedroom	12	17,980.50
	3 Bedroom	9	26,372.17
	4+ Bedroom	2	48,087.50
Aug 79	1 Bedroom	2	13,060.00
	2 Bedroom	15	24,690.67
	3 Bedroom	7	41,840.75
	4+ Bedroom	2	28,266.67
Sept 79	1 Bedroom	1	10,855.42
	2 Bedroom	12	23,877.32
	3 Bedroom	24	29.687.14
	4+ Bedroom	1	36,600.00
Oct 79	1 Bedroom	-	---
	2 Bedroom	12	14,134.81
	3 Bedroom	3	19,370.83
	4+ Bedroom	1	51,900.00
Nov 79	1 Bedroom	1	2,187.50
	2 Bedroom	12	26,098.95
	3 Bedroom	6	19,877.14
Dec 79	1 Bedroom	1	3,275.00

	2 Bedroom	2	205.75		2 Bedroom	7	24,388.82
	3 Bedroom	1	301.25		3 Bedroom	4	31,155.56
	4+ Bedroom	1	325.00				
Jan 80	1 Bedroom	2	134.58	Jan 80	1 Bedroom	1	14,500.00
	2 Bedroom	3	233.85		2 Bedroom	9	21,377.66
	3 Bedroom	1	267.50		3 Bedroom	4	32,443.25
					4+ Bedroom	1	18,750.00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ROSEBURG
and vicinity
1980
HOUSING SURVEY
SUBAREAS
FIGURE 1

SUB-AREA No. 1

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	110	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-
Percent of Dwellings in Class	100	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Dwellings in Class	100				12			-			-			-				-
Percent of all Dwellings	90%				10%			-			-			-				-
Total Dwellings in Survey Area	122																	

SUB-AREA No. 2

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	168	22	-	-	80	6	-	65	7	-	-	-	-	-	-	-	-	---
Percent of Dwellings in Class	88	12	-	-	93	7	-	90	10	-	-	-	-	-	-	-	-	---
Total Dwellings in Class	190				86			72			-			-				---
Percent of all Dwellings	55%				25%			20%			-			-				---
Total Dwellings in Survey Area	348																	

SUB-AREA No. 3

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	296	8	-	-	20	-	-	131	-	-	12	-	-	1	1	-	-	---
Percent of Dwellings in Class	97	3	-	-	100	-	-	100	-	-	100	-	-	50	50	-	-	---
Total Dwellings in Class	304				20			131			12			2				---
Percent of all Dwellings	65%				4%			28%			3%			*				
Total Dwellings in Survey Area	469																	

SUB-AREA No. 4

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	552	8	2	1	26	-	-	88	-	-	2	-	-	-	-	-	-	---
Percent of Dwellings in Class	98	1.5	*	*	100	-	-	100	-	-	100	-	-	-	-	-	-	---
Total Dwellings in Class	563				26			88			2			-				---
Percent of all Dwellings	83%				4%			13%			*			-				-
Total Dwellings in Survey Area	679																	

SUB-AREA No. 5

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	141	182	3	1	26	44	2	52	85	6	-	-	-	-	-	-	-	---
Percent of Dwellings in Class	43	56	1	*	36	61	3	36	60	4	-	-	-	-	-	-	-	---
Total Dwellings in Class	327				72			143			-			-				---
Percent of all Dwellings	61%				13%			36%			-			-				---
Total Dwellings in Survey Area	542																	

SUB-AREA No. 6

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	280	61	2	-	20	-	-	57	-	-	-	-	-	-	1	-	-	---
Percent of Dwellings in Class	82	18	*	-	100	-	-	100	-	-	-	-	-	-	100	-	-	---
Total Dwellings in Class	343				20			57			-			1				---
Percent of all Dwellings	81%				5%			14%			-			*				---
Total Dwellings in Survey Area	421																	

SUB-AREA No. 7

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	244	5	1	-	24	4	-	112	-	-	-	-	-	-	-	-	-	---
Percent of Dwellings in Class	98	2	*	-	86	4	100	-	-	-	-	-	-	-	-	-	-	---
Total Dwellings in Class	250				28			112			-			-				---
Percent of all Dwellings	64%				7%			29%			-			-				---
Total Dwellings in Survey Area	390																	

SUB-AREA No. 8

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	310	63	18	8	28	8	-	105	16	6	20	-	-	1	1	1	-	9
Percent of Dwellings in Class	78	16	4	2	78	22	-	83	13	4	100	-	-	33	33	33	-	100
Total Dwellings in Class	399				36			127			20			3				9
Percent of all Dwellings	67%				6%			21%			3%			1%				2%
Total Dwellings in Survey Area	594																	

SUB-AREA No. 9

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	65	9	2	1	8	-	-	3	-	-	-	-	-	6	6	-	-	---
Percent of Dwellings in Class	84	12	2	1	100	-	-	100	-	-	-	-	-	50	50	-	-	---
Total Dwellings in Class	77				8			3			-			12				---
Percent of all Dwellings	77%				8%			3%			-			12%				---
Total Dwellings in Survey Area	100																	

SUB-AREA No. 10

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	262	61	2	1	26	7	-	148	6	-	-	-	-	-	-	-	-	---
Percent of Dwellings in Class	80	19	1	*	81	19	-	96	4	-	-	-	-	-	-	-	-	---
Total Dwellings in Class	326				32			154			-			-				---
Percent of all Dwellings	64%				6%			30%			-			-				---
Total Dwellings in Survey Area	512																	

SUB-AREA No. 11

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	204	73	12	1	16	4	-	28	3	-	24	-	-	16	11	-	-	---
Percent of Dwellings in Class	70	25	4	*	80	20	-	9010	1	-	100	-	-	-	-	-	-	---
Total Dwellings in Class	290				20			31			24			27				---
Percent of all Dwellings	74%				5%			8%			6%			7%				---
Total Dwellings in Survey Area	392																	

SUB-AREA No. 12

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	236	14	4	-	20	-	-	25	14	-	30	-	-	16	3	-	-	68
Percent of Dwellings in Class	93	6	1	-	100	-	-	64	36	-	100	-	-	-	-	-	-	100
Total Dwellings in Class	254				20			39			30			19				68
Percent of all Dwellings	59%				5%			9%			7%			4%				16%
Total Dwellings in Survey Area	430																	

SUB-AREA No. 13

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	673	13	1	1	30	-	-	-	-	-	-	-	-	2	1	-	-	---
Percent of Dwellings in Class	98	2	*	*	100	-	-	-	-	-	-	-	-	66	33	-	-	---
Total Dwellings in Class	688				30			-			-			3				---
Percent of all Dwellings	95%				4%			-			-			1%				---
Total Dwellings in Survey Area	721																	

SUB-AREA No. 14

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	---
Percent of Dwellings in Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	---
Total Dwellings in Class	-				-			-			-			-				-
Percent of all Dwellings	-				-			-			-			-				-
Total Dwellings in Survey Area	-																	

SUB-AREA No. 15

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	402	12	4	-	38	2	-	268	62	-	35	-	-	10	3	-	-	157
Percent of Dwellings in Class	96	3	1	-	95	5	-	8	19	-	100	-	-	77	13	-	-	100
Total Dwellings in Class	418				40			330			35			13				157
Percent of all Dwellings	42%				4%			33%			4%			1%				16%
Total Dwellings in Survey Area	993																	

SUB-AREA No. 16

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	158	8	1	-	20	-	2	104	-	-	-	-	-	75	8	-	-	290
Percent of Dwellings in Class	94	4	2	-	90	-	10	100	-	-	-	-	-	90	10	-	-	100
Total Dwellings in Class	167				22			104			-			83				290
Percent of all Dwellings	25%				3%			17%			-			12%				43%
Total Dwellings in Survey Area	666																	

SUB-AREA No. 17

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	224	3	-	-	30	-	-	23	14	-	-	-	-	7	1	-	-	156
Percent of Dwellings in Class	99	1	-	-	100	-	-	62	38	-	-	-	-	88	12	-	-	100
Total Dwellings in Class	227				30			37			-			8				156
Percent of all Dwellings	50%				7%			8%			-			2%				34%
Total Dwellings in Survey Area	458																	

SUB-AREA No. 18

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	172	31	-	-	4	2	-	12	15	-	-	-	-	60	14	-	-	137
Percent of Dwellings in Class	85	15	-	-	67	33	-	44	66	-	-	-	-	81	19	-	-	100
Total Dwellings in Class	203				6			27			-			74				137
Percent of all Dwellings	45%				1%			6%			-			17%				31%
Total Dwellings in Survey Area	447																	

SUB-AREA No. 19

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	250	5	2	-	4	-	-	130	-	-	-	-	-	17	1	-	-	179
Percent of Dwellings in Class	97	2	1	-	100	-	-	100	-	-	-	-	-	95	5	-	-	100
Total Dwellings in Class	257				4			130			-			18				179
Percent of all Dwellings	44%				1%			22%			-			3%				30%
Total Dwellings in Survey Area	588																	

SUB-AREA No. 20

Class of Dwelling	Single-Family Units				Duplex Units			Apartments			Condominiums			Mobile Homes				Mobile Home in Park
Physical Condition of Dwellings	Standard	Sub-Minor	Sub-Major	Dilapidated	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Standard	Sub-Minor	Sub-Major	Dilapidated	Mobile Homes In Parks were not rated for physical condition
Number of Units	29	2	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	---
Percent of Dwellings in Class	94	6	-	-	-	-	-	-	-	-	-	-	-	50	50	-	-	---
Total Dwellings in Class	31				-			-			-			2				---
Percent of all Dwellings	94%				-			-			-			6$				---
Total Dwellings in Survey Area	33																	

State and Federal Programs in Housing

Introduction

During the past few years, a wide range of governmental programs have been introduced at the federal, State and local levels in order to help attack the housing problems of needy households. Unfortunately, many of these programs (particularly at the national level) have been inadequately funded, tainted by scandal or ineptness, poorly administered, and/or insufficiently publicized. The result all too frequently has been confusion and lack of extensive use by both the consumer (families and individuals), the provider (builders, contractors, and developers), and the convener (sponsoring agencies, local public agencies, etc.). While thousands of families in Oregon have been recipients of some type of housing subsidy, considerable lost opportunity has occurred for thousands more because of lack of personal awareness and public action.

These programs also have a habit of changing--in terms of interest rates, who qualities, application procedures and even existence. The purpose of this section, therefore, is simply to create an awareness of programs which currently exist and their basic objectives.

The programs mentioned below are divided into seven topical areas, including: (1) rental assistance; (2) homeownership assistance; (3) rehabilitation and home improvement; (4) veterans' assistance; (5) weatherization and energy conservation; (6) tax relief; and (7) programs for housing suppliers.

Rental Assistance Programs

HUD Public Housing

Original program established in 1937 and directed at lowest income households in community. Requires establishment of Local Housing Authority. Projects funded by issuance of 40-year tax-exempt bonds which HUD retires through annual contribution contracts. HUD pays principal and interest on bonds and Public Housing projects pay a reduced amount of property taxes to local government. Income limits for occupants have traditionally been set at about 70% of the median income for the county or metropolitan area, al- though vary by age and family size. Occupants pay no more than 25% of income for rent.

HUD Section 8 Rental Subsidy

Currently the major source of federal housing assistance for lower-income persons since its initiation in 1974. Under Section 8 Existing Housing program, tenants are allowed to find a vacant rental unit on the private market, as long as it confirms to local housing quality standards ,.and is within maximum rent limits. Tenants pay no more than 25% of income for rent, with only stipulation being that rents may not exceed HUD's determined "fair market rent." These levels are established by bedroom size for each county-or metropolitan area. Program is designed to give tenants more choice in location and type of unit. Income limits for occupants are set at 80% of the median income for the area.

FMHA Rental Housing: Section 515

Provides loans to public and private (limited profit and non-profit) sponsors for the construction or substantial rehabilitation of rental and cooperative housing for low

and moderate-income families and elderly persons. The interest rate on these loans varies between 1% and the market rate, depending on the kind of sponsor and the projected income of the tenants. Terms of the loan are 40 years (50 years for senior citizen loans). For non-profit and public bodies, the maximum loan is 102% of the total development cost. For other sponsors, 100% is the maximum loan. Tenants in Section 515 projects may not pay more than 25% of their adjusted income for rent and utilities. Section 8 Assistance Payments and FMHA Rental Supplements may be used with Section 5i5 loans to bring rents within tenants' ability to pay.

Homeownership Assistance Programs

FMHA Homeownership Loan Program: Section 502

Provides direct loans to individuals to buy, build, repair, renovate, or relocate a home. Loans also may be used to buy and prepare the site on which the house will be built, including provision of a water supply and sewage disposal facility. Is no maximum loan amount but FMHA requires that the home be "modest in size, design, and cost." Loan amounts also limited by what an eligible family can afford for mortgage payments, taxes, and insurance, which is supposed to be within 20% of their adjusted income. Applicant must have an adjusted family income of under $15,600. Interest rate is currently 8!4% with a maximum repayment period of 33 years. Family with an adjusted income of under $11,200 can qualify for an "interest credit" loan which allows an interest rate of as low as 1%.

State of Oregon Mortgage Purchase Program

Formerly called "Loans to Lenders," program is operated by the Housing Division through local lending institutions. Aimed at helping moderate and lower-middle income households to buy a home by allowing the State to lend money raised through revenue bonds to local lending institutions at below market interest rates who, in turn, lend the

money to eligible borrowers at a reduced rate of interest. State then purchases the mortgages from the local lenders. To be eligible, a household must have an annual gross income of less than $15,250. Current interest rate is 7;4% and maximum loan term is 20 to 30 years (15 to 30 years for mobile homes). Maximum purchase price for a home is currently $42,500.

FHA Basic Home Mortgage Insurance: Section 203(b)

The basic FHA mortgage insurance program for homebuyers in the purchase of new and existing one to four-family dwellings. Under current limits, mortgage amount insured can be as high as $60,000 for a single family home. Main advantage is the low down payment--3% on the first $25,000 of the value of the property and 5% on the value in excess of this. Is a fee for the mortgage insurance of 0.5% on the outstanding loan balance.

FHA Mortgage Insurance for Condominium Purchase: Section 234

Provides mortgage insurance to families for purchase of individual condominium units. Maximum loan amount is $60,000. FRA will insure 97% of the first $25,000; 90% of the excess up to $35,000; and 85% of the excess up to $60,000. Mortgage term is 30 years and may be extended to 35 years in special cases.

FHA Homeownership Assistance: Section 235 (Revised)

Provides mortgage insurance to purchasers of single family residences whose adjusted gross income is less than 95% of the area's median income. Also subsidizes interest on mortgage to reduce interest rate paid by buyer to as low as 5%. Homes bought through this program must be new or substantially rehabilitated. Cooperatives and condominiums are also eligible. Mortgage limits are $32,000 ($38,000 for homes for 5 or more persons), and in high-cost areas they are $38,000 ($44,000 for homes for 5

or more persons). Minimum down payments are same as those specified for FHA Section 203(b) program.

FHA Graduated Payment Mortgage: Section 245

Especially directed to the first-time homebuyer. Provides for mortgage insurance on a graduated payment mortgage schedule so that payments are less in the early years and increase gradually as the homeowner's income increases. Are 5 different payment schedules available-- varying in duration and rate of increase.

FHA Mobile Home Mortgage Insurance: Title I

Provides for mortgage insurance for purchase of mobile homes which must be new, or if not new, must have been formerly financed with an FHA- insured loan. Maximum loan amounts are currently $16,000 for a single-wide and $24,000 for a double-wide. The required down payment is 5% of total price up to $3,000 and 10% on amount over $3,000.

Rehabilitation and Home Improvement Loans

FmHA Home Repair Loans: Section 504

Authorizes loans and grants to low-income homeowners to remove certain dangers to their health and safety such as connecting the dwelling to water or sewer lines, providing toilet facilities, installing water supplies, repairing a roof, adding a room, etc. Applicant must lack income necessary to repay an FMHA Section 502 loan, and must own and occupy a rural home that has hazardous conditions. Interest rate is normally 1%, with a maximum loan amount of $5,000, and maximum loan term of 20 years. In the case of low-income elderly applicants (62 years of age or over), outright grants also can be given (as a combination of loan and grant).

HUD/FHA Property Improvement and Mobile Home Insurance: Title I

Given to private lenders financing permanent repairs and improvements to private homes, apartments, and certain commercial and farm buildings. Maximum interest rate for all loan categories is 12%. Class I (a) loan insurance covers improvements to any existing structure (including mobile homes). Eligible improvements include structural repairs, additions, energy conserving improvements and/or solar energy systems, heating systems, and fire safety equipment. Maximum loan amount is $10,000. Maximum loan term is 12 years. FHA insurance premium is 0.5% annually of the amount advanced and is paid by the lender. Are no income limits for eligibility.

HUD Rehabilitation Loans: Section 312

Provides for direct loans at a 3% interest rate, to property owners within designated Community Development areas. Loans are to be used to bring property up to local code standards, and may not exceed $17,400 per dwelling unit.

Veterans' Assistance Programs

VA Home Loan Guarantee

Veterans Administration does not lend money directly but does guarantee loans made by private lenders to veterans of World War II, the Korean War, and those who served in the Armed Forces after January 31, 1955 for a period of more than 180 days. (Unmarried widows and widowers of veterans whose deaths were service-connected are also eligible.) Similar to FHA mortgage insurance since could allow banks to lend to otherwise risky borrowers. Is made between veteran and lender without charge to lender. No down payment is required by the V.A., although lender may require one. Maximum loan guarantee is $17,500. Is no maximum or minimum mortgage amount.

May be used to; (a) buy, build, alter, repair, or improve a detached home or condominium; (b) buy a mobile home with or without the lot; or (c) refinance existing mortgage loans or other liens of record.

For mobile home loans, maximum loan guarantee is 50% of the purchase price. Loan limits are $12,500 for single-wide mobile homes and $20,000 for doublewides.

State of Oregon Veterans Farm and Home Loan Program

Very popular program with funds raised through State general obligation bonds which are repaid by veterans participating in the program. Loans are made for following purposes: (a) purchase a home, mobile home, or farm, and its improvement; (b) pay off a purchase-money mortgage or contract, and the improvement of property so acquired; (c) for new construction of a home on property owned or leased by the applicant; and (d) improvements to meet State weatherization standards.

Eligible veterans are those who are: (a) veterans of either World War II, the Korean War, or the post-Korean period; and (b) residents of Oregon at the time of application, and who are either residents of Oregon at the time of entry into the service or were residents of Oregon for at least 2 years during a specified period (which depends on the time-period in which they served).

Veteran may borrow up to $58,500 to acquire a home, or $180,000 to acquire a farm. Loan may not exceed 95% of appraised value of the property on homes and 90% on farms that are real property. Loans on mobile homes may not exceed 85%. Interest rate changes from time to time according to existing economic conditions. Currently, are 5.9% on real property and 7.9% on personal-property-mobile homes. Maximum term for repayment under the law is 30 years on city or suburban properties and 40 years on farms. However, it is generally less.

State of Oregon Veterans' Weatherization and Alternative Energy Services Recent State legislation requires that in order to acquire a veteran's loan for a home built prior to July 1, 1974 (when State insulation standards went into effect for newer homes) and purchased after October 1, 1977, the home must meet new weatherization standards set by the Department of Commerce. Cost of these energy conservation improvements can be added to the principal of the VA loans.

If after a VA inspection, the home must be weatherized in order to obtain VA financing, veteran has 120 days after loan has been issued to bring house up to weatherization standards. Eligible veterans also may borrow for additional weatherization for a new or old home financed by VA.

Recent legislation also applies to all veterans intending to install solar, wind, or geothermal energy devices. Loan of up to $3,000 may be granted, provided alternate energy device will meet or exceed 10% of total energy requirements of home.

Weatherization and Energy Conservation Programs

CSA Home Weatherization for Low-Income Households

The U.S. Community Services Administration (CSA) operates program to allow low-income homeowners to weatherize homes to save energy and reduce heating costs. Home weatherization includes, but is not limited to the following repair roof leaks, insulate attic space, ventilate attic space, insulate wall space, weather strip doors and windows, install vapor barriers, insulate hot water heaters and heating ducts, adjust or repair faulty furnaces and hot water heaters, install storm windows, dehumidifiers, and water flow regulators. Program is free to those who qualify, since resident is not charged for labor or materials. Are two basic qualifications to receive assistance through this program, including: (a) must own home or mobile home; and (b) must have an

income of less than $327/month (1 person); and so on (add $106 to these figures for each additional member of the household).

State of Oregon Low-Income Elderly Weatherization Refund

Program which provides for home weatherization of low-income elderly homeowners. Eligible applicant can qualify for up to $300 reimbursement of weatherization expense. Applicant must be 60 years or older, and have applied for and received an Owner Property Tax Refund. Assessed value of the applicant's home must be less than $30,000 and annual household income must be less than $7,500. Department of Revenue mails vouchers to eligible homeowners. After the work is done, proof of weatherization costs must be submitted. Within 60 days, Department will refund up to $300 of weatherization expenses. Applicant must not be eligible for any federal weatherization program. State of Oregon Private and Public Utility Energy Conservation Assistance and Weatherization

Public and private utility companies are required to provide weatherization services to their residential space heating customers. Services may include information about home energy conservation actions, home "energy analysis" inspections, and arrangement of weatherization (including insulation, weather stripping, and storm doors and windows) either through utility company or commercial lending institution. Mobile homes are excluded.

Tax Relief Programs

State of Oregon Homeowner and Renter Property Tax Refunds

Homeowners and renters whose annual income is less than $16,000 are eligible to receive refund on their State income taxes--the smaller the income, the greater the refund. In 1977, maximum refund for homeowners was $655; for renters $328. Eligible

households can apply for their respective refund in form included in State income tax packet.

State of Oregon Weatherization Tax Credit

1977 State legislation allows personal income tax credit for individual taxpayers who weatherize or otherwise improve energy efficiency of their principal residence, excluding mobile homes. Landlords may receive credit for weatherizing their rental property if property is principal residence of renters. Credit allows 25% of the actual cost of the installation and materials, up to a maximum of $125, to be claimed as a credit against State income taxes. Items such as caulking, weather stripping, insulation, vapor barrier materials, timed thermostats, dehumidifiers, storm windows and doors, and some other energy saving devices qualify for the credit.

State of Oregon Homeowner's Tax Credit for Alternative Energy Devices

Oregon homeowners can receive a tax credit for installing a solar, wind, or geothermal energy device in principal or secondary residence. Some 25% of the investment cost, or a maximum $1,000, may be claimed provided the alternative energy device meets minimum performance criteria set by the Department of Energy.

State of Oregon Elderly Tax Relief Programs

1. Elderly Rental Assistance. Program is similar to Homeowner and Property Tax Refund Program, but exclusively for seniors. Must be at least 58 years old, have a household income of less than $5,000, and be paying more than 40% of income for rent, fuel, and utilities. Refund is calculated by adding rent, fuel,)and utilities (up to $2,100), and subtracting 40% of household income. Senior citizen who is eligible for both the Renter's

Refund and Elderly Rental Assistance cannot receive both refunds. Rather, they will receive the greater of the two.

2. Utility/Heating Fuel Rate Relief for Elderly. Low-income elderly citizens are eligible to receive a $50 refund for fuel and utility rate relief. Must be 60 years of age, have household income of less than $5,000, and be eligible and file for an Owner or Renter Refund from Department of Revenue.
3. Low-Income Elderly Weatherization Refund. See discussion of this program in section on Weatherization and Energy Conservation Assistance.
4. Senior Citizen's Property Tax Deferral. Homeowners, 62 years or older, are eligible for deferral of all property taxes on occupied home. Taxes are paid in full, plus 6% interest, when either owner dies (qualified spouse can continue to receive deferral, if desired), home is sold, or ceases to be permanent residence of owner.

Programs for Housing Suppliers

FmHA Rural Multi-Family Housing Loans- Section 515

See previous discussion in section on Rental Assistance programs.

FmRA Farm Labor Housing Loans: Sections 514/516

Program provides combination of grants and loans to finance construction, rehabilitation, or acquisition of rental housing for farm workers, including persons employed at fish and oyster farms. Grant of up to 90% of cost of project is made, with remainder loaned at 1% interest. Loans are repaid over a 33-year period. Housing financed under this section must be operated on a non-profit basis.

Non-profit corporations, State agencies and political subdivisions, and private, non-profit farm worker associations are eligible for both grants and loans. Farm owners, farm owner associations, and grower-oriented non-profits are eligible only for loans. Housing can be in urban area, provided there is nearby farm labor market. FMHA Rent Supplements and HUD Section 8 Existing Housing subsidies may be used in tandem. PMHA Technical Assistance Grants for Self-Help Housing and Rural Housing Site Loans: Section 523/524

Provides grants to non-profit groups to enable low-income rural residents to build their own homes. Houses are financed under FmHA's Section 'JU2 program, with Section 523 providing administrative money to the sponsor for hiring counselors and construction supervisors. Group of families jointly contribute the needed home-building, labor-hiring skilled help where necessary, Most grants made for 1 or 2 years with funds advanced as needed and budgeted for 30-day periods. Self-help sponsors, public bodies, and private, non-profit organizations are also eligible to apply for Section 523 or 524 site loans to finance the purchase and development of building sites, including access roads, streets and utilities. Sites must be sold to low- and moderate-income families who qualify for a FMHA loan or to non-profit organizations eligible for a Rural Rental or Cooperative Housing loan. Loans carry a market interest rate. Sites financed with Section 523 loans can only be sold to self-help families. Section 523 loans carry 3% interest rate. Loans are repayable in 2 years.

HUD Direct Loans for Housing for the Elderly or Handicapped

Provides for long-term direct loans to private, non-profit sponsors to finance rental or cooperative housing facilities for elderly and handicapped persons. Terms of loan currently are 100% financing at 6.87% for 40 years. Tenants may receive help through Section 8 program. Sponsors may be eligible for Section 106(b) Seed Money Loans to cover some of starting costs, such as survey and mortgage application fees. Loans are especially advantageous for financing elderly housing.

HUD Mortgage Insurance for Multiple-Family Housing and Mobile Home Parks: Section 207

Provides mortgage insurance to private lenders for construction or rehabilitation of multi-unit housing (including mobile home parks) for moderate and middle-income families. Eligible applicants include investors, builders, developers, and others who meet FHA requirements and qualify for conventional mortgage. Projects must contain at least 8 units and be in area approved by FHA for rental housing.

HUD Mortgage Insurance for Cooperative Housing: Section 213

Provides insurance to non-profit corporations (or those who intend to sell to a non-profit corporation) for financing construction or rehabilitation of cooperative housing projects of 5 or more dwelling units. The maximum amount of the loan is 90% of the estimated replacement cost or appraised value.

HUD Mortgage Insurance for Low and Moderate-Income Multi-Family Rental Housing: Section 221(d) (3)

Provides federal mortgage insurance at market interest rates for construction of new or rehabilitated rental and cooperative housing for low and moderate-income families. Projects must contain at least 5 units. Eligible borrowers include non-profit, public, cooperative, limited dividend, investor, and profit organizations. Public agencies may use loans to finance projects to be assisted under Sect ion 8 Rental Assistance program.

Loan repayment period is 40 years or 3/4's of economic life of project --whichever is less. For non-profit, cooperative, and public sponsors, mortgage may cover 100% of the property's value. A 90% mortgage is made to limited-dividend sponsors.

A companion program (Section 221(d) (4)) is similar, but only for profit-motivated sponsors.

HUD Mortgage Insurance for Housing for the Elderly or Handicapped: Section 231

Insures mortgage to finance construction or rehabilitation of rental housing projects designed for occupancy by elderly or handicapped persons. Borrowers can include profit and non-profit corporations, public agencies, individuals, partnerships, and other entities approved by FHA. Borrowers may use Section 231 insured loans to finance projects that will be assisted under HUD's Section 8 program. Non-profit and public borrowers are eligible for insured mortgages up to 100% of FHA's estimated replacement cost of project. Profit mortgagors are eligible for 00% of replacement costs. The maximum mortgage term for all borrowers is 40 years or 3/4's of the remaining economic life of project--whichever is less.

HUD Mortgage Insurance for Nursing Homes and Intermediate Care Facilities: Section 232

Provides mortgage insurance to finance construction or rehabilitation of nursing homes and other continuous care facilities. Projects must accommodate 20 or more patients. Mortgage may not be for more than 90% of costs and may include major equipment needed to operate the facility. Interest rate is 8% with additional 0.5% for insurance. Term is 40 years or 3/4's of economic life of project--whichever is less.

HUD Mortgage Insurance for Condominium Development: Section 234

Provides mortgage insurance to sponsors for construction or rehabilitation of individual condominium units. Eligible applicants include any qualified profit-motivated or non-profit sponsor.

State of Oregon Section 8 New Construction and Substantial Rehabilitation Program for Multi-Family Housing

Joint effort involving Housing Division, HUD, and private lenders Housing Division provides permanent financing for the projects at below market interest rates; private lenders provide construction financing; HUD provides Section 8 rent subsidies. Housing Division obtains its loan funds from sale of revenue bonds.

State of Oregon Low-Income Elderly Rental Housing Bonding Program

Provides for issuance of more than $200 million in revenue bonds by State for loans to private developers, non-profit sponsors, and housing authorities for construction of multi-family housing for senior citizens. Operates like Existing Multi-family program. Section 8 rent subsidies will be used in the projects so that seniors pay no more than 25% of income or housing costs.

State of Oregon Downtown Multiple-Unit Property Tax Exemption Program

Program created by State enabling legislation (ORS 307.600) and can be implemented by localities through their own legislation. Provides for a 10 year tax exemption to newly constructed rental housing of 24 or more units in central area of a city.

LAND USE AND URBANIZATION ELEMENT

URBAN AREA

ROSEBURG

COMPREHENSIVE PLAN

LAND USE AND URBANIZATION ELEMENT

Introduction

The Land Use and Urbanization Element, together with the graphic land use map, is a guide for the future use of land within the City of Roseburg and the surrounding area encompassed by the Urban Growth Boundary. The element consists of analysis of existing land use, projections of future land use needs, a graphic land use map, policy statements related to individual land use types, and the establishment of an Urban Growth Boundary. The land use plan is based upon careful consideration of the policies and recommendations of other elements of the Comprehensive Plan, community desires as expressed through the Citizens Advisory Committee and public involvement during the hearings process, and projected land use needs to the year 2000.

Perhaps the most important consideration in land use planning is the manner in which the land has been put to use. Land use in the Roseburg urban area has evolved as a direct result of many years of decision-making and serves as an indicator of community values and desires. To provide an inventory of the type, amount and location of the various categories of land use, the Planning Department conducted an urban area wide survey of existing land use. The results of the survey are an integral element in the methodologies employed to project future urban land needs (See Table LU-1).

The land use survey reveals that the proportion of land devoted to each land use type and the relationship of land use to population closely approximates those found in other Oregon cities of comparable size. Furthermore, an examination of previous planning efforts shows that the land use characteristic in the Roseburg urban area have followed identifiable trends. The importance of this interpretation, of course, is that it allows existing land use ratios to be projected into the future with reasonable assurance that they will adequately provide for the future needs of the community.

Land Need Projections

Methodologies for projecting future urban land needs range from the very simple to the very complex. The type of methodology employed in a given planning situation is usually determined by several factors; the size of the planning area (large city or small town), the amount and degree of detail of data available, and the degree of projection accuracy required or desired.

Although there is a choice of the specific method to be used, the primary elements of various options are the same. Differences between methods result from various levels of analysis, the arrangement of land use priorities, the policies adopted as part of the comprehensive plan.

The methodology employed in the Roseburg Urban Area Comprehensive Plan utilizes date from as many sources as are available and the level of analysis is the

highest practical within the range of that data. Within the Land Use and Urbanization Element, land need projections are broken into a number of categories for separate analysis. These categories include: residential lands at various density levels, commercial lands, and industrial lands. In addition, these "basic" land use need projections also take into account the amount of land needed for streets and roads, parks and open space areas, schools and other institutions, and a myriad of other special uses which must be provided for as the Roseburg urban area continues to grow.

Land Use Survey

During the summer of 1980, the Roseburg Planning Department conducted a detailed analysis of existing land use in the urbanized area. The purpose of the analysis was two-fold. First, it provided a graphic illustration of the location of various land use activities throughout the urban area and revealed relationships between different land uses. Second, the analysis revealed data concerning the amount of land currently consumed by various urban uses.

In order to evaluate current land use at a manageable level, the urbanized area was subdivided into nineteen study areas. An attempt was made to define each study area as a distinct geographic section of the urbanized area, using significant natural and man-made features as boundaries between each. Figure 1 identifies each of the nineteen land use study areas.

Within each study area existing land uses were grouped into the following categories:

- Single-family detached dwellings (conventional)
- Single-family mobile homes
- Two-family dwellings (duplexes)
- Multi-family dwellings (three or more units)
- Mobile home parks
- Commercial
- Light and Medium Industrial
- Heavy Industrial
- Semi-Public (churches, community centers, private recreation facilities, etc.)
- Public (schools and parks)
- Governmental (government offices, post offices, governmental institutions, etc.)
- Streets and Roads

The land use categories were further divided between areas inside the Roseburg city limits and those in the unincorporated area. Table LU-1 provides a summary of the land use analysis. A more detailed analysis of each study area is provided in the appendix to the Land Use and Urbanization Element.

TABLE LU-1
1980 LAND USE SURVEY SUMMARY
ROSEBURG URBAN AREA

	Inside City	Outside City	Total Acres
Commercial	284.55	45.84	330.40
Light & Medium Industrial	78.69	95.26	173.95
Heavy Industrial	45.37	120.66	166.03
Multi-Family Residential	58.52	31.63	90.15
Duplexes	22.44	10.19	32.63
Public	444.86	174.16	619.02
Semi-Public	137.28	5.05	142.33
Governmental	216.93	1.26	218.19
Single-Family Residential	963.60	539.96	1503.56
Mobile Homes	6.81	54.78	61.59
Mobile Home Parks	14.10	119.79	133.89
Streets & Roads	*	*	1580.20
TOTAL URBANIZED LAND INSIDE CITY	2,273.16		
TOTAL URBANIZED LAND OUTSIDE CITY	1,198.20		
LAND DEVOTED TO STREETS AND ROADS WITHIN ROSEBURG URBAN AREA	1,580.20		
TOTAL URBANIZED LAND WITHIN ROSEBURG URBAN AREA	5,051.94		

While the existing land use acreage figures reported in Table LU-1 are divided between the incorporated and unincorporated urbanized area, it is important to note that future land use projections must be based on urban area wide needs rather than simply limited to the expected future growth of the City of Roseburg. Therefore, land use acreage figures for the entire urbanized area employed in the projection methodology.

Residential Land Use

Residential uses consume the majority of developed land within the Roseburg urban area. As such, residential land needs are given primary consideration in determining the amount of land to be included within the urban growth boundary. In keeping with the City's housing goal of ensuring the opportunity for, and the provision of, safe, affordable housing in sufficient numbers, types, size and locations to meet the needs of all citizens in the Roseburg urban area, it is necessary to consider various housing types and residential densities separately.

For the purpose of projecting future residential land needs, three levels of housing density are identified; low, medium and high. It is important to note, however, that the three residential density levels used to project future land needs are, overall, somewhat higher than the corresponding densities of the urban area's existing housing stock. (See Housing Element for discussion on increased densities.) This is consistent with goals, objectives and policies listed throughout the Plan which promote higher residential densities to achieve a more compact urban form. Low density residential land use in currently urbanized areas in and around Roseburg is defined as one to five dwellings per gross acre. The projection methodology employed here assumes that a future density of up to six dwelling units per gross acre will constitute "Low Density Residential". Where medium density has historically been defined as six to twelve dwelling units per gross area, future medium density projections assume a range of seven to fourteen dwelling units per gross acre. High density areas are assumed to provide for fifteen to forty dwelling units per gross acre.

Although future densities within the three broad residential categories will, on the average, be somewhat higher than corresponding historic densities, the type of dwellings found in each density category is essentially unchanged.

Appropriate residential uses in urban low density areas include conventional single-family dwellings, mobile homes and duplexes. At the urban medium density level, residential uses include single-family dwellings (conventional and mobile home), duplexes, three to eight unit apartments and mobile home parks. High density provides for the full range of housing opportunities, including single-family dwellings on a limited basis.

In order to project the amount of land needed to accommodate residential development in the Roseburg urban area over the next twenty years, a correlation between the urban area's present population and the amount of land currently in residential use must be established.

The estimated 1980 urban area population is 25, 435 (see Population Element). From the findings of the 1980 housing survey (see Housing Element) it is known that the urban area's housing stock consists of 8,901 dwelling units, of which about 2.5 percent are vacant at any given time. This means that the urban area's population is currently housed in 8,675 dwellings. Using the average household size of 2.9 persons per dwelling unit (average of all dwelling types) as reported in the Housing Element, the 1980 estimated population can be reaffirmed:

Average Household Size	X	Number of Occupied Dwellings	=	Residential Population	+	Group Urban Quarter Population	=	Area Population
2.9	X	8,675	=	25,158	+	277	=	25,435

The 1980 Land Use Analysis (see Table LU-1) shows that the urban area's current housing stock of 8,901 units presently occupies a total of 1,918 acres, minus streets and roads. Within the general category of "Residential Lands," the urban area's 5,424 single-family dwellings occupy 1,598 acres; 512 duplex units occupy 33 acres; 1,704 multi-family units occupy 90 acres; 265 mobile homes on individual lots comprise 63 acres; and, the urban area's mobile home parks, which contain 996 mobile homes,

take up 132 acres of land. Table LU-2 shows the percentage of the total residential land area consumed by each dwelling type as well as the average number of dwellings per acre within each category. Table LU-2 also confirms the a assumption regarding current average residential densities discussed previously.

TABLE LU-2
RESIDENTIAL LAND AREA BY DWELLING TYPE
ROSEBURG URBAN AREA
1980

	DWELLING UNIT TYPE				
	Single-Family	Duplex	Multi-Family	Mobile Home	Mobile Home Park
Acres	1,598	33	90	63	134
% of Residential Land Area	83%	2%	5%	3%	7%
Average Number Dwelling/Acre	3.4	15.5	17.5	4.2	7.4

Note: Acreage figures do not include area devoted to public right-of-way.

While single-family conventional dwellings presently make up 61 percent of the urban area's housing stock, this class of dwelling consumes 83 percent of the total land area devoted to residential use; averaging 3.4 dwellings per net acres (minus public right-of-way). Duplexes account for 5.7 percent of the housing stock while occupying only 2 percent of the residential land; an average of 15.5 dwelling units per net acre. Multi-family units are more land efficient still; providing 18 percent of the urban area's housing, yet using less than 5 percent of the land currently in residential use for 17.5 units per net acre. Individual mobile homes, which tend to be located on residential lots somewhat smaller than a conventional single-family dwellings, are evenly balanced in terms of contribution to the urban area's housing stock (3%) and the amount of land consumed (3%). Mobile homes on individual lots average 4.2 dwellings per net acre. In terms of land use efficiency, mobile home parks fall about midway between single-family and multi-family. About eleven percent of the urban area's housing stock is contained in mobile home parks which together consume seven percent of the land

currently in residential use. The urban area's mobile home parks provide an average density of 7.4 dwellings per net acre.

It is important to remember that the density figures discussed above are urban area averages. Factors such as slope, zoning and age of a neighborhood ar all determinates of a specific area's residential density. The various residential designations found on the land use plan map are also based on average density. As with existing densities, exact future residential density will also be determined by site-specific factors; most notably, zoning regulations and topography. Therefore, the residential land need projection methodology employed inthe Plan need not be concerned with the exact number of dwellings which might be built at a specific location within the urban area. Nevertheless, certain factors cannot be totally ignored when determining the amount of land needed to accommodate residential growth; slope being of primary concern.

Slope as a Factor of Density

Assuming that there will continue to be both a demand and a need for residential development on hillsides, residential density at varying degrees of slope must be analyzed.

As part of the existing land use analysis, twelve separate areas within the city were selected. Each area selected was chosen based upon certain criteria. All twelve areas were judged to be developed to an optimum level with single-family dwellings and all area zoned "Single-Family Residential" (R-1). Each area contains from five to sixty acres. Four areas selected are situated on land with slopes ranging from 1-12% (Group A). Four other areas are on slopes ranging from 13-25% (Group B), and the final four residential groups are in areas with slopes predominately in excess of 25% (Group C). Land area dedicated to public right-of-way was included in calculations of average

density; therefore, the average number of dwellings per gross acre was determined. Table LU-3 shows the finding of the slope-density analysis.

TABLE LU-3
SLOPE AS A FACTOR OF RESIDENTIAL DENSITY
CITY OF ROSEBURG
1980

GROUP A 0 – 12% Slope

AREAS	LOCATION	ACREAGE	NO. OF DWELLINGS	DENSITY
A-1	Chateau Street	20.1	65	3.23
A-2	Kline Street	58.9	192	3.26
A-3	Le Mans Street	6.2	20	3.23
A-4	Wharton Street	11.1	53	4.77

Average Density 3.62 Dw/Ac

GROUP B 13 – 25% Slope

AREAS	LOCATION	ACREAGE	NO. OF DWELLINGS	DENSITY
B-1	Crestview Avenue	15.7	41	2.61
B-2	Formdahl Street	9.6	24	2.50
B-3	Lincoln Street	10.8	26	2.41
B-4	Scofield Avenue	4.0	9	2.25

Average Density 2.44 Dw/Ac

GROUP C Over 25% Slope

AREAS	LOCATION	ACREAGE	NO. OF DWELLINGS	DENSITY
C-1	Sunset Drive	15.7	12	.76
C-2	Hillside Drive	5.1	5	.98
C-3	Terrace Drive (1)	29.84	26	.87
C-4	Terrace Drive (2)	14.18	24	1.69

Average Density 1.07 Dw/Ac

Based upon the findings concerning slope as a factor of residential density, the average density within each of the three broad residential categories (low, medium and high density) are weighted by a slope factor. For example: the constant density for "Low Density Residential" is four dwellings per gross acre. On slopes 0-12% no weighted slope factor is used, since slopes of less than 12% have little impact upon density. In areas with slopes of predominately 13-25%, a weighted factor of 70% is used. This is because, on the average, areas with slopes of 13-25% were found to accommodate only about 70 percent of the number of dwellings per gross acre as areas with slopes under 13 percent. In other words, it would take 130 acres of land having predominately 13-25% slopes to accommodate the same number of dwellings as 100 acres on slopes under 13 percent.

On slopes in excess of 25% the weighted factor increases dramatically to 40 percent. That is, it takes two and one-half times more land to accommodate the same number of dwellings as can be accommodated on land with slopes o 0-12%. For a more detailed discussion of urban development on steeply sloped areas, refer to the section entitled Hillside Development.

Residential Land Needs

As discussed previously, residential land use designations in the Comprehensive Plan are contained within three density categories: Urban Low Density, up to six units per gross acre; Urban Medium Density, seven to fourteen dwelling units per gross acre; and, Urban High Density, fifteen to forty dwelling units per gross acre.

Within the three residential density designations, provision must be made for the five basic dwelling types: Single-family (both conventional and mobile homes); Duplex; Mobile Home Park; and Multi-family (both renter and owner occupied). In order to assure that the Plan provides residential areas which offer a variety of housing

densities, types, sizes, costs and location, a mix of the basic housing types is assumed to occur within each of the three designations. For the purpose of estimating the amount of land needed within each of the three density categories, the assumed housing mix is established in Table LU-4 below.

TABLE LU-4

ESTIMATED MIX OF NEW DWELLINGS BY RESIDENTIAL DENSITY DESIGNATION ROSEBURG URBAN AREA
1980-2000

DWELLING	**URBAN LOW DENSITY**	**URBAN MEDIUM DENSITY**	**URBAN HIGH DENSITY**
Single-family (conventional)	85%	10%	5%
Mobile Home (on individual lot)	70%	25%	5%
Duplex	50%	40%	10%
Mobile Home Park	---	100%	---
Multi-family	---	60%	40%

The assumed mix of future dwelling types listed in Table LU-4 above is based upon both current trends and desired future residential land use patterns. Although future conditions in the housing market will, to a significant degree, affect the actual mix of dwelling types, both in terms of numbers and location, a mix based on community desires can and should be directed by the Plan. Current trends in the mix of new dwellings is discussed at some length in the Housing Element; however, these trends only indicate the number of dwellings being constructed by type and do not give a picture of the present housing mix in terms of location within the urban area.

Both the housing survey (see Housing Element) and the survey of existing land use reveal marked segregation of different dwelling types in the urban area. This trend tends to contradict the City's goal of encouraging a variety of housing types while allowing a choice of location throughout the urban area. The assumed mix of dwelling types by residential density designation, as expressed in Table LU-4, should not be regarded as a "quota system" designed to limit the number of specific dwelling types in any given area. Rather, these percentage figures are intended to provide a basis for calculating the amount of land area needed to allow the market to function in response to actual demand. The specific location of future dwelling types (conventional, duplex, mobile home, apartment, etc.) will be determined by zoning regulations.

The estimated percentage mix is intended to apply only to future residential development and does not imply an overall mix which includes existing development. For example: from the Housing Element we know that the Plan anticipates a need for an additional 5,370 conventional single-family dwellings by the year 2000. This constitutes fifty-five percent of the total additional dwellings need in the urban area over the next twenty years. From Table LE-74 we see that 85 percent of these dwellings are expected to be constructed in areas designated "Urban Low Density Residential"; 10 percent in areas designed "Urban Medium Density Residential"; and, 5 percent in areas designated "Urban High Density Residential."

To simplify the projection model, each residential dwelling type is assigned a constant density factor which is maintained through the course of the land need computations. In the case of single-family residential, the density constant is four dwellings per gross acre.

At four dwellings per gross acre, a total of 1343 acres of buildable land is needed to accommodate the 5,370 conventional single-family dwellings to be constructed by the year 2000. Of the 1343 needed acres, 80 percent or 1074 acres of buildable land is

required within the Low Density designation. Within the Medium Density designation, 201 acres of buildable land is needed, and 68 acres are required in the High Density designation to accommodate its allocation of five percent of the future conventional single-family dwellings.

The projection model thus progresses with each of the four remaining dwelling types. Table LU-5 summarizes the residential land need projection model and shows both the number of gross acres needed for each type of dwelling as well as the number of acres needed within each of the three residential density designations.

In reviewing the acreage figures in Table LU-5 it is important to understand that they are "unweighted" estimates. That is, while the acreage projections are given in terms of "gross acre" requirements which account for land needed to accommodate an adequate transportation system (streets, bikeways, etc.), they do not account for the additional acreage requirements of weighted slope factors. Since the slope of a specific area must be known before the weighted slope factor can be applied, it is not possible to project actual "weighted" residential land requirements. However, the total residential land actually provided can be reported both statistically (see Table LU-5) and graphically (see Land Use Plan Map).

TABLE LU-5

UNWEIGHTED[1] GROSS BUILDABLE ACRES NEEDED
BY DWELLING TYPE AND RESIDENTIAL DENSITY DESIGNATION
ROSEBURG URBAN AREA
YEAR 2000

DWELLING TYPE	HOUSING STARTS NEEDED	DENSITY CONSTANT	ACRES NEEDED BY DWELLING TYPE	MIX FACTOR PERCENTAGES U.L. U.M. U.H.	ACRES NEEDED BY EACH RESIDENTIAL DENSITY DESIGNATION URBAN LOW	URBAN MEDIUM	URBAN HIGH
Convt. Single-family	5,370 (55%)	4.0 D.U./Ac.	1,343	85 - 10 - 5	1,141	134	68
Indiv. Mobile Homes	683 (7%)	4.5 D.U./Ac.	151	70 - 25 - 5	105	38	8
Duplex Units	683 (7%)	8.0 D.U./Ac.	85	50 - 40 - 10	42	34	9
Mobile Home Parks	1,075 (11%)	7.0 D.U./Ac.	154	0 -100 - 0	--	154	--
Multi-family Units	1,953 (20%)	20.0 D.U./Ac.	98	0 - 60 - 40	--	59	39
TOTALS	9,764 (100%)		1,831		1,288	419	124

Total Additional Residential Land Needed: 1831 Acres

NOTE: 1. Unweighted acreage figures are expressed in terms of a density constant and include streets and roads, but do not include weighted slope factors. All acreage figures indicate future land needs in addition to land currently in residential use.

Commercial Land Needs

Commercial activity is the third largest consumer of developed land in the Roseburg urban area; following residential and public land uses (parks, schools, etc). During the period from 1960 to 1980 the amount of land devoted to commercial use in the urban area nearly tripled, out-pacing population growth by over two to one. In 1960, the Roseburg urban area had a population of about 18,000 persons. At that time, there was 113 acres of land in commercial use; for a ration of .63 acres of commercial land per 100 persons.[17] By 1973 the ratio was up to one acre per 100 persons, with an urban area population of 20,339 and 205 acres of commercial land.[18] The 1980 urban area land use inventory reveals that there is 330 acres of land in commercial use. With an estimated 1980 urban area population of 25,435 persons, this computes to a ration of 1.3 acres of commercial land per 100 people. The amount of commercial land use in relation to population growth between 1960 and 1980 is shown on Table LU-6.

The increased ration of commercial lands to population shown in Table LU-6 can be explained by three basic factors. First, population growth in the Roseburg urban area has reached a level where specialized commercial trades can now be supported. These specialized trades, when added to the "basic" or traditional trade sector contributed to accelerated commercial growth. The second factor explaining accelerated economic growth in the commercial sector has been Roseburg's increasing importance as a regional trade center. As reported in the Economic Element, between 1974 and 1977 Roseburg experienced a 107 percent increase in retail sales, while retail sales on a county-wide basis increased by 30 percent. The third factor which has raised the ratio of commercial land to population is the increased amount of land on each commercial site which must be devoted to parking. While the vast majority of

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[17] Bureau of Governmental Research, University of Oregon, 1961, Commercial Land Use in Roseburg.

[18] Roseburg Urban Area Comprehensive Plan - 1973

commercial activity in 1960 was concentrated in the city center where little land was devoted to off-street parking, today's commercial development occurring outside the downtown area must provide adequate area for parking, loading and other off-street activities. For example: the recently completed Roseburg Valley Mall located in West Roseburg is situated on nearly seventeen acres, of which well over half is devoted to on-site parking and circulation requirements.

TABLE LU-6

COMMERCIAL LAND AREA AS A FUNCTION
OF POPULATION GROWTH
HISTORIC AND PROJECTED
ROSEBURG URBAN AREA
1960-2000

YEAR	**1960[1]**	**1973[2]**	**1980[3]**	**2000**
Urban Area Population	18,000	20,339	25,435	44,329
Acres of Commercial Land	113	205	330	576
Acres Per 100 People	.63	1.0	1.3	1.3

SOURCE: 1. Bureau of Governmental Research, University of Oregon, 1961, Commercial Land Use in Roseburg.
2. Roseburg Urban Area Comprehensive Plan - 1973.
3. Land use Survey, City of Roseburg Planning Department - 1980

An increasing percentage of the urban area's new commercial development will be made up of businesses which provide on-site parking. This will result in an even higher commercial land to population ratio as the urban area continued to grow. While it

is not possible to predict exactly what the future ratio will be, certain assumptions lead to a fairly reasonable estimate.

The first assumption is that the tremendous growth in the commercial sector experienced during the past ten years (1970-1980) was a market response to pent up demand created by slow economic growth prior to 1970, but future growth in the commercial sector (particularly retail trade) will tend to reach a closer balance with population growth. The second assumption is that the present (1980) ratio of commercial land to population more accurately reflects current off-street parking requirements, and such off-street space requirements will not be significantly increased in the future. The third assumption is that a small percentage of new future commercial activity will occur on lands which are presently used for noncommercial activity as the result of the land use conversion process. While it is not possible to predict to what extent the conversion o process will provide for future commercial uses, a figure of 10 percent of future commercial land needs is employed in the project model.

Based on these assumptions, a projected ration of 1.3 acres of commercial land per 100 persons appears to be a reasonable estimate. Of course, future trends must be monitored and analyzed as the urban area continues to grow, and adjustments to the ratio must be provided for during periodic review and update of the Comprehensive Plan.

Using the ratio of 1.3 acres per 100 persons, the projected Roseburg urban area year 2000 population of 44,329 persons would require a total of 576 acres to accommodate commercial growth over the course of the 20 year planning period. This projection provides for a 45 percent increase in the amount of land presently devoted to commercial activity and requires that 246 acres of vacant land be designated for commercial use in the Plan.

As previously noted, the urban area has grown to a level where more specialized commercial services can be supported. This is particularly evident in the areas of

finance, law, insurance, real estate, medical and other service oriented professions (see Economic Element). Rapid growth in this sector of the commercial market has resulted in a high demand for professional office-type development.

Local experience has shown that professional office development can, to a degree, be compatible with most other land use activities, including residential. Professional offices, unlike other commercial uses, tend to have limited business hours, generate only moderate traffic counts, produce light demands on services (such as sewer and water), and incorporate architectural and site designs with minimal impact on nearby property. When properly designed and located, professional office development can serve as an effective "buffer" or transitional area between residential uses and more intensive commercial activities. It can also buffer residential areas from the impacts of major arterials and other sources of noise and sight pollution.

Recognizing both the need for and compatibility of professional office development, the Comprehensive Plan identifies selected areas where a Professional Office designation and subsequent zoning is appropriate in relation to other types of land use activity. No separate land need projection is made for the Professional Office designation, as this land use is already accounted for in the overall calculation of commercial land needs. (Refer to description of Professional Office designation on page 616.)

Industry

Historically, the Roseburg Urban area has been heavily dependent upon resource based industry; most notably, timber and wood products. In fact, the wood products industry is often referred to as the life-blood of the local economy. In more recent times, however, growth in the resource-based industrial sector has not kept pace with the overall growth of Roseburg and surrounding areas.

While economic data pertaining to the Roseburg Urban area is very limited, county-wide figures show a dramatic change in the make-up of the local economy. Between 1976 and 1980 Douglas County experienced a net gain of about 4,000 jobs; a 12.4 percent net increase. During the same period the lumber and wood products industry experienced a net gain of only 40 jobs; a net increase of less than one-half of one percent.[29]

The prognosis for the future of the lumber and wood products industry in Douglas County is not particularly optimistic. In 1978, the Coos-Curry-Douglas Economic Improvement Association (CCD) published a report containing projections of marked declines in the number of persons employed in the County's timber and wood products industry.[30] The CCD report projects a net loss of six to eight thousand jobs in Douglas County the year 2000. However, these figures apply to job losses in all sectors of the economy resulting from the predicted decline in the timber and wood products industry, and are not limited to manufacturing.

A more recent study done by the Bonneville Power Administration (BPA) reached equally pessimistic conclusions about the future of the local lumber and wood products industry.[31] The BPA report predicts a net loss of 2,400 lumber and wood product manufacturing jobs by the year 2000. Spread out over the twenty year projection period, this figure amounts to an annual average decrease in heavy manufacturing of 1.3 percent.

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[29] Oregon State Employment Division.

[30] Projection of Future Job Losses in the Timber Industry in Douglas County Due to Timber Supply Declines and Productivity Increases, Coos-Curry-Douglas Economic Improvement Association, March, 1978.

[31] Douglas County Employment Projections, Bonneville Power Administration, Requirements Section, July, 1979.

Both the CCD and BPA projections stem from two assumptions about future trends: (1) a reduced supply of timber for processing because of harvest changes, and (2) reduced employment per unit processed because of increased productivity resulting from technological advances in production methods.

Trends over the last decade indicate quite clearly that future economic growth in the urban area cannot realistically be expected from expansion of the county's resource-based industries. As is discussed at some length in the Economic Element, it is apparent that the local area needs to diversify its industrial base. As Roseburg has grown, its economic life has tended to be supported more and more by the flow of goods and services within the urban area. It seems reasonable, however, that continued economic growth cannot be relied upon indefinitely if there is not also corresponding growth through diversification in the industrial sector.

A 1976 study by the Coos-Curry-Douglas Economic Improvement Association identified industries that were compatible with local resources and had the greatest potential for locating in the Roseburg area.[32] The criteria used to determine compatible industries were:

1. Wage levels;
2. Industry growth patterns;
3. Resource constraints such as energy and water consumption requirements;
4. Community size preference; and
5. Transportation facilities requirements.

Although the CCD study assigns "primary" status to those industries found most compatible, it cautions against the exclusion of the "secondary" and "tertiary" industries from consideration and recruiting efforts, noting that sizable plan locations nationwide

[32] Area Diversification Strategy for the CCD Economic Development District; Coos-Curry-Douglas Economic Improvement Association, September, 1976.

number fewer than 1,000 per year. For this reason, land needs projections are based upon averages of industrial types in general and not on specific categories. The margins provided for "average" expansion will tend to accommodate any extremes experienced in the shorter term, and any unusual preponderances of specific categories over the longer term, with resultant changes in demand for industrial lands from the average, will be accounted for during periodic updates of the plan.

Industrial Land Needs

The two preceding sections of this element (residential and commercial lands needs) dealt with the question of future land needs on the basis of past and present trends, as well as desired goals in terms of providing for projected population growth. Unlike residential and commercial land needs, present conditions are not reliable indicators of future Industrial land needs, due to the major changes occurring in the wood products manufacturing sector.

Industrial land need has therefore been projected based on other factors. The methodology for projecting industrial land needs includes estimating the labor force by using an assumed labor force participation rate applied to the projected population in the year 2000. Then a ratio of industrial to non-industrial jobs is applied to determine total industrial jobs. This is further split into two categories, light and medium industrial jobs, and heavy industrial jobs. Finally, the projected number of employees in both categories of industrial jobs is divided by available employees-per-acre ratios for both light and medium industrial and for heavy industrial, which yields the projected industrial acres needed.

The components of this calculation of industrial land must be derived in order to perform the calculation. Based on current information and trends, assumptions can be made regarding each component and the projection of industrial land need completed.

As explained in the Economic Element, the 1980 labor force participation rate in the Roseburg area is estimated to be about forty-five percent; slightly lower than the county-wide average of forty-seven percent. However, the participation rate in Roseburg is increasing at a faster pace than in the county overall, and can reasonably be expected to continue to increase by at least an additional five percent by the year 2000. Over the course of the planning period, the Roseburg urban area is assumed to have a labor force participation rate of fifty percent.

The current ratio of industrial to non-industrial employment is assumed to remain constant throughout the course of the projection period. (Current data suggests that the percentage of the labor force in the industrial sector is actually decreasing, but there is no way of predicting to what extent or for how long this trend will continue.) The best estimate of the current makeup of the labor force, is: 30 percent industrial and 70 percent non-industrial. This breakdown is derived by comparing the statewide average makeup of 23 percent industrial to the current county-wide makeup of 33 percent industrial.[33] The assumption here is that a smaller percentage of the urban area's labor force is engaged in industry than is the county-wide labor force (owing to Roseburg's role as a regional service and trade center); and that, because of the high concentration of wood products manufacturing in the urban area, the percentage of industrial workers is probably higher than the statewide average.

In the Roseburg Urban Area Comprehensive Plan, industrial land need projections are divided into two categories: land needed for "heavy" industry, and land needed to accommodate "light" and "medium" industry.

From the 1980 land use survey (See Table LU-1) it is known that the urban area contains about 577 acres of land in industrial use. About 70 percent, or 400 acres, is used by firms engaged in "heavy" industrial activity; primarily lumber and wood products

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[33] Source: Douglas County Economic Information, Oregon Department of Economic Development, June 1979.

processing. These kinds of industry are land extensive; they consume a very large amount of land in relation to the number of persons they employ. Table LU-7 bellow, shows the number of employees per acre of the five lumber and wood products producers inventoried in the urban area land use survey. The range is 1.56 to 6.43 employees per acre and the average is 2.34 employees per acre.

The State Employment Division has calculated employees per acre for existing light and medium industries with the Roseburg Urban Growth Boundary. The results are shown in table LU-8 by Standard Industrial Classification code. Employees per acre ratios ranged from 1.79 to 57.40, with the average being 8.13 employees per acre.

TABLE LU-7

EMPLOYEES PER ACRE FOR FIVE
ROSEBURG URBAN AREA WOOD PRODUCTS MANUFACTURERS

SUB-AREA LOCATION	**FIRM**	**ACREAGE ON SITE**	**EMPLOYEES[1] PER ACRE**
1	Douglas County Lumber Co.	234 Ac.	1.56
2	Keller Lumber Company	38 Ac.	1.61
7	Hub Lumber Company	7 Ac.	6.43
13	Champion Bldg. Products	85 Ac.	4.54
19	Cooper's Mill Inc.	19 Ac.	2.11
	TOTAL	383 Ac.	2.34 Average

[1]NOTE: Employment figures assume full production.
SOURCE: Oregon State Employment Division

TABLE LU-8
EMPLOYEES PER ACRE WITHIN
THE ROSEBURG URBAN GROWTH BOUNDARY

	SIC CODE	EMPLOYEE[1] PER ACRE
LIGHT/MEDIUM INDUSTRY	24	1.79
	50	8.53
	51	17.76
	(50-51)	(12.66)
	52	19.52
	54-55	5.59
	(52-55)	(7.70)
	75	5.52
	76	10.00
	(75-76)	(7.55)
	15	8.93
	16	6.31
	17	11.25
	(15-17)	(8.08)
	41	30.45
	42	11.53
	(41-42)	(13.95)
	49	57.40
	20	20.60
	32-39	7.20
TOTAL		8.13

[1]NOTE: ACREAGE FIGURES ARE 1984; EMPLOYMENT FIGURES ARE 1983.
SOURCE: Oregon State Employment Division and Roseburg-Green Industrial Site Inventory, Douglas County Planning Department, 1984

In 1980, there were 177 acres of developed light and medium industrial land and 400 acres of developed heavy industrial land in 1980. Tables LU-7 and LU-8 show employee per acre ratios for light and medium industrial and for heavy industrial development. By applying the employee per acre ratio from Tables LU-7 and LU-8 to the acreage figures given, the number of total employees in each category is obtained.

This produces a figure for heavy industrial employees as follows: 400 acres x 2.34 employees/acre = 936 employees, and for light and medium industrial: 177 x 8.13 employees/acre = 2375 employees.

By the above counts, a ratio of 40% heavy industrial employees to 60% light and medium industrial employees is derived.

In the five year period from 1976 to 1980, the number of persons employed in light and medium industry on a county-wide basis increased at an average annual rate of nine percent. During the same period, the number of persons employed in heavy industry increased by less than one-half of one percent per year. In terms of its contribution to the makeup of the labor force, the size of the lumber and wood products industry labor force actually decreased by six percent between 1970 and 1980.[34] The trend toward an increase in light and medium industry can be expected to produce a year 2000 ratio of 35% heavy industry to 65% light and medium industry.

Although the derived employee per acre figures provide a good basis for industrial land needs calculations, other sources of information were examined.

Other studies of industry in Oregon, such as that cited in Table LU-9 indicate higher employees per acre ratios than those shown for the Roseburg area, particularly for light and medium industries. In contrast with the 8.13 employees per net acre for Roseburg, the Metropolitan Plan Update for the City of Eugene uses a figure of 18.5 employees per net acre (or 14.3 units per gross acre using the 20% conversion factor noted in the document) for light and medium industrial use.[35]

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[34] Douglas County Economic Information, Oregon Department of Economic Development, 1979.

[35] Metropolitan Plan Update, Economic-Addendum, Lane Council of Governments, 1981.

The Roseburg Airport Industrial Park Feasibility Analysis also indicates projected ratios of employees per gross acre.[36] For non-wood products manufacturing, the range is from 3-12 employees per acre, or a mean of 7.5 Wholesale trade, industrial distribution, and government ranges from 5-11 employees per acre, a mean of 8.

If the locally-derived employees per acre figure is adjusted to gross acres by the 20% conversion factor used in the L-COG study, the average of the local date, the Airport Industrial Park study, and the City of Eugene Metropolitan Plan update is 9.3 employees per gross acre. This average compares closely with the local ratio of 8.13 and also can be assumed to account for a trend toward higher density employment. Use of these other sources appropriately broaden the base of the ratio projection. The 9.3 ratio will be utilized for the light ad medium industrial land need calculation.

It is assumed for projection purposes that heavy industry in Roseburg will trend toward the employee per acre ratio of other Oregon areas in part because the technology and land intensity of heavy industries, and lumber and wood products industries in particular, do not vary substantially from area to area. That is, markets and technologies tend to make heavy industries more uniform throughout the state than light and medium industries which are more diverse and have different market areas. Thus, it is expected that employees per acre for heavy industry will be somewhat higher than 2.34.

A study prepared by the Oregon District 4 Council of Governments entitled Industrial Employment Densities in Lincoln, Linn, and Benton Counties indicates an average future density for heavy industry of 4 employees per gross acres. A ratio of 4.0 is assumed and will be utilized for heavy industrial land needs calculations.

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[36] Roseburg Airport Industrial Park Feasibility Analysis, DMJM Hilton and Jack Jarvis and Co., Inc., November 1977.

A 25% factor should be added to the gross acreage demand to reflect the amount of land being held for expansion at any point in time. This figure is roughly based on the proportion of undeveloped land currently being held for future use, and may be conservative, as additional whole tax lots may also be currently held for future expansion.

By applying the derived ratios to the urban area's year 2000 population projection of 44,329, the estimate of future land needs can be completed as follows: (1) With a labor force participation rate of 50 percent, the estimated year 2000 urban area labor force will contain 22,165 workers. (2) With 30 percent of the labor force employed in all types of industry, the urban area labor force will contain 6,650 industrial workers. (3) The industrial labor force will be made up of 4,323 (65%) "light" and "medium" industry workers and 2,327 (35%) "heavy" industry workers. (4a) The 4,323 "light" and "medium" industrial workers divided by 9.3 employees per acre will need 465 acres in the light and medium industry category. (4b) The 2,327 "heavy" industrial workers divided by 4.0 employees per acre will need 582 acres of land for heavy industry. Applying the 25% factor for land held for expansion yields a need for 581 and 727 acres respectively. A chart depicting existing industrial land use and projected future industrial land needs is provided in Table LU-9 below.

In order to provide the greatest amount of flexibility in terms of attracting and accommodating diversified industrial development, the distinction between "light", "Medium", and "Heavy" industry will be accomplished through the application of specific industrial zoning. This is done in recognition of the inherent limitations of projecting the actual mix of industrial land uses.

TABLE LU-9 INDUSTRIAL LAND NEEDS ROSEBURG URBAN AREA 1980-2000			
	EXISTING ACRES 1980	**ADDITIONAL ACRES NEEDED BY YEAR 2000**	**TOTAL INDUSTRIAL ACRES NEEDED BY YEAR 2000**
Light and Medium Industrial Land	177 Ac.	404 Ac.	581 Ac.
Heavy Industrial Land	400 Ac.	327 Ac.	727 Ac.
TOTAL	577 Ac.	731 Ac.	1308 Ac.

Although the community may have preferences for certain types of industry it would like to attract to the area, the community cannot accurately predict which firms may choose to locate here, or how many people those future industries will employ. It is imperative that the City and County ensure the provision of sufficient designated and zoned land that is suitable for general industrial use, and also offers the features required by the identified target industries. As previously noted, transportation facility requirements and resource constraints such as energy and water consumption were two of the criteria used to determine the target industries, and the only two of the criteria over which the City and County has some control. The Roseburg-Green Inventory

specifically evaluates sites based on transportation access, and utility access, as well as other characteristics.[37]

The primary list of target industries was also examined against the siting requirements noted by the Western Environmental Trade Association where the two lists coincide to determine if local sites are suitable for the target industries.[38] Generally, target industries need relatively flat ground, stable soils, and adequate water supply and sewage disposal. Many also need rail transportation. Some need air transportation, and virtually all need good truck transportation. Obviously site size will vary among industries, but minimums start approximately 2+ acres, with land needed for expansion necessitating another 4-5 acres minimum.

Some industries will require considerably more land, up to or exceeding 100 acres. Sites of adequate size must be available within the urban growth boundary, and must be protected from development or encroachment which will lessen their desirability as industrial sites. To allow adequate choice and inhibit monopolies, a selection of sites in each acreage category should be available. Due to existing land use constraints, topography, and simple lack of availability, a suitable range of sites is not possible in all acreage classifications.

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[37] Roseburg-Green Industrial Site Inventory, Douglas County Planning Inventory, Douglas County Planning Department, 1984.

[38] Land Use Siting Requirements for Industry, Western Environmental Trade Association, August, 1981.

The range of vacant industrial land currently in the Urban Growth Boundary is classified by size as follows:

SITE SIZE		OF SITES
Up to 5 acres		48
6-10 acres		16
11-25 acres		6
26-50 acres		5
51-100 acres		0
100+ acres		1
	TOTAL	76

Planned Commercial and Industrial Parks

Industrial and commercial activity is the life-blood of the community; as such, it merits careful planning consideration. In some communities the most undesirable lands end up on the industrial designation; the tendency being to consider industrial land use needs after all others have been fulfilled. Commercial and industrial sites are probably the most demanding, in terms of their requirements for large, flat, easily accessible locations with a high level of services available. Traditionally, the emphasis in city planning has been to protect residential areas from encroachment by "undesirable" commercial and industrial development, with little attention given to the need to protect these areas from encroachment by conflicting residential development. In communities where this basic conflict has not been resolved, the result is a steady exodus of economic of economic activity to locations outside the community.

One of the most successful means of keeping commerce in the community, and attracting new business, is the planned commercial and industrial park. Some of the benefits associated with the planned commercial and industrial park concept include:

- Immediate site readiness, reducing the time lag between the decision to locate and the beginning of production or trade.

- Availability of a "package plan," relieving new business of the need to develop the site or to handle legal and local negotiations (e.g., zoning, extension of utilities and services, etc.)

- Flexibility of building or site choice (i.e., availability of several alternative sites within the development).

- Operating economies, giving smaller businesses the advantage of shared facilities and improvements (e.g., sewer, water, fire protection, access, drives, parking, security, etc.).

- Reduced site development costs permitting savings in development costs for the smaller land users through economies of scale by the developer.

- Investment protection through covenants designed to safeguard against deterioration of properties in the development, and, if well planned, protection of land near the park (a well-planned commercial or industrial development can be located adjacent to traditionally non-compatible uses such as schools, parks, hospitals, and residential development without adverse impact). This allows the development to use less land (since it doesn't have to insulate itself), and the land's value is maintained, or, more often, increased over the years.

- Benefits to others, such as nearby business and service industries, eating and club facilities, joint projects among tenants, etc.

- Favorable competitive position for the community by being able to offer fully-serviced and established sites to prospective new businesses.

- Diversification of the local economy through attraction of new commerce to the community. Most businesses locating in a planned commercial and industrial park are small to medium sized branches of larger firms or local companies which have outgrown their original quarters.

- Broadens the local tax base and permits more equitable and efficient assessment.

- Accelerates the "multiplier effect" of local economic growth.
- Permits more efficient and economic extension of municipal services (sewer, water, fire protection, streets, etc.) through concentration of a number of businesses in a few specific areas rather than scattered in widely separated locations.
- Reduces intra-urban area traffic associated with commercial and industrial activity.
- Promotes the concept of a more compact, well-planned city, and enhances the sense of community identity.

To accomplish these objectives, the Land Use Map identifies sites which are both suitable and desirable locations for the development of planned commercial and industrial parks. Development of designated planned commercial and industrial parks is subject to review under the provision of the Planned Unit Development (PUD) procedures established in the Land Use and Development Ordinance.

In addition to promotion well-designed and coordinated industrial and commercial development, the PUD review process will also tend to ensure the maximum feasible compatibility of industrial and commercial development when situated adjacent to or in the vicinity of sensitive or easily impacted land uses, community facilities or natural environments.

The PUD designation of sites in the Comprehensive Plan Land Use Map shall be implemented by site-specific zoning overlays or other special notation on City and County zoning maps and land use ordinances.

LAND SUITABILITY

The protection of the natural environment and the wise use of environmental resources are important goals for land use planning and growth management and must be taken into consideration during all phases of the planning process.

Land use and urbanization policies are effective devices for directing growth into areas best suited for specific types of development. At the same time, they can effectively prevent the urbanization of lands, which by their physical nature are unsuitable for urban development. Restricting or prohibiting development on unsuitable lands can perform two equally valuable functions: reducing environmental degradation, and allowing the utilization of land in a safe and more efficient manner. The method of land suitability analysis described in this section of the Land Use and Urbanization Element will allow the establishment of an urban growth boundary which will guide urban development to those lands which are physically suited for such development.

There are three steps in the land suitability model employed in the Land Use Plan. The first step is to consider what factors or physical characteristics make a particular area or site unsuitable for urban development. This requires an analysis of the various potential hazards or constraints which may impact development, as well as the potential adverse environmental consequences which may result from development.

The second step in the land suitability model involves the application of findings from the first step so that policy decisions can be applied to the identification of specific areas which are either unsuited for development or require special consideration before development actually occurs. The third step in the process is actually a continuation of the second step, in that suitable or desirable land is identified so that decisions can be made regarding the best use of those lands.

The methodology is centered around the basic assumption that the Plan wishes to prevent or restrict development on lands which are physically hazardous to development, are productive agricultural or forest lands, or perform valuable ecological functions when left in their natural state. This central assumption is also balanced with the understanding that the methodology also involves trade-offs.

The market value of land excluded from consideration as urbanizable land will probably be reduced. Even though long term public benefits result from these decisions, short term economic hardship may result. The owners of excluded land will face potential economic loss, and the city may face a reduced rate of increase in its tax base. Thus, while considering that decisions regarding the physical suitability of land for urbanization has clear long term benefits, the Plan must also be based on consideration of possible short term consequences. Therefore, the final decisions which must be made regarding the establishment of the urban growth boundary, the various land use designations contained therein, must be based on careful consideration of community discussion and input.

Hazards to Development - Flooding

Periodic flooding represents a significant natural hazard in the Roseburg urban area. Both the North Umpqua and South Umpqua rivers, as well as their tributaries experience seasonal flooding to varying degrees. Most years, seasonal run-off is contained within the main channels of the streams, posing little threat to man and his activities. Periodically, however, certain conditions occur resulting in extremely heavy run-off which cannot be entirely contained by the main flood channel. When this happens, low lying areas adjacent to the stream become inundated, posing significant danger to inhabitants and resulting in widespread economic loss. Major flooding in the area has occurred in 1861, 1927, 1945, 1955, 1961, 1964, 1971 and 1974. [39]

Areas subject to flooding in the Roseburg urban area are identified in a comprehensive document, and accompanying maps, entitled Flood Insurance Study, Douglas County, Oregon, produced by the U.S. Department of Housing and Urban Development, Flood Insurance Administration. The flood insurance study, including flood plain maps, is incorporated into the Roseburg Urban Area Comprehensive Plan by reference and is available for study at the Roseburg Planning Department.

Floods affect all urban area residents whether they are directly involved with flood waters or not. Floods causing extensive damage are often declared federal disasters which are eligible for federally subsidized low interest loans. Flood insurance

[39] SOURCE: U.S. Department of Housing and Urban Development, Flood Insurance Administration, June, 1978, Flood Insurance Study, Douglas County, Oregon.

for flood damages are also subsidized in part by tax dollars, creating a bona fide public interest in enforcing measures which reduce flood damages.

In order to qualify for flood insurance, local governments must adopt regulations which meet or exceed certain minimum federal guidelines. Briefly, the guidelines prohibit encroachments in the floodway portion of the floodplain and require development occurring in other areas of the 100-year floodplain to be flood proofed.

Unrestricted development in the floodplain may actually increase flooding hazards to other property. Actions which are incompatible with floodplain conditions may appear at some later date as a public nuisance, threat to public safety or lead to victimization and fraud.

Examples of how land uses may become public nuisances are abundant during floods. Buildings, lumber piles, storage tanks and other debris dislodged during a flood cause damage to other property, public and private, through collision or by creating temporary dams which raise the water level further. Materials such as caustic or poisonous pollutants, or explosive materials dislodged from their storage areas may also create a serious nuisance and threat to public safety. As encroachment occurs in flood hazard areas, the potential for debris increased, and the flood depth also increases. This increase in flood depths (from extensive encroachment) may be so significant as to cause additional areas, which would not ordinarily have been flooded, to be inundated.

How the Floodplain is Determined

The extent of the 100-year floodplain is calculated through computer analysis of previous flood levels, river discharge, channel width and velocity.

As stated earlier, the flood hazard maps produced in conjunction with the Flood Insurance Study for Douglas County delineate the 100-year floodplain and floodway hazard areas.

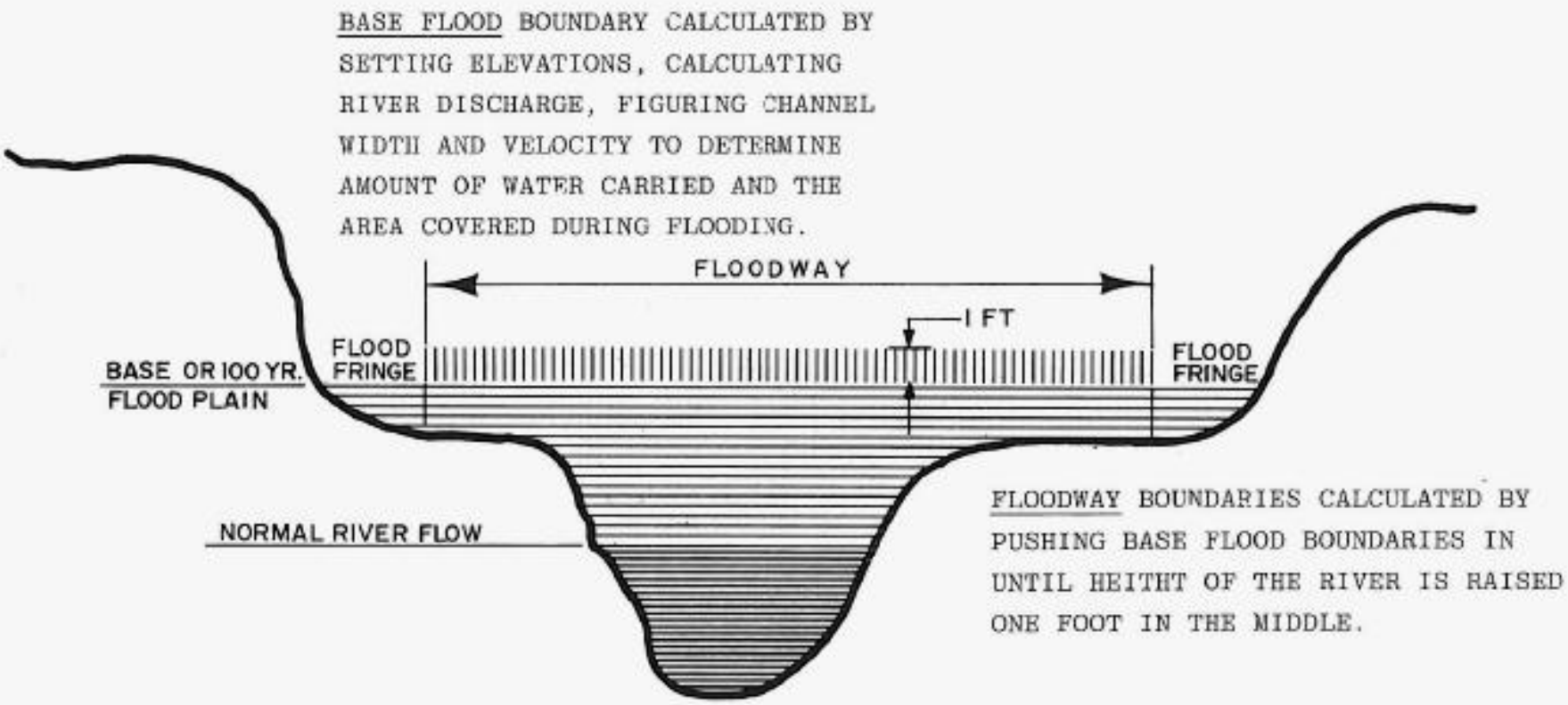
The 100-year flood refers to a flood discharge of a magnitude likely to occur on the average of once every 100 years or has a 1% chance of being exceeded in any given year, or a 20-30% chance of being exceeded within the average mortgage life of many buildings. However, there is no guarantee that a 100-year flood will occur at all within the 100-year period or that it will not recur several times in a single season.

The floodway is that portion of the 100-year floodplain calculated to have sufficient width and flood conveyance characteristics to pass the flood waters from upstream to downstream points without increasing flood heights more than one foot, or substantially increasing the flood velocities over what they would be without confinement. The above described areas of flood hazard are illustrated on Figure 11.

Flood Hazard Areas

The majority of areas affected by periodic flooding are the low lying areas along the South Umpqua River. Significant inundation occurs south of the South Umpqua in the Fairhaven/Stanton Street areas. In this area standing floodwaters have extended as far as 1500 feet to the south of Harvard Avenue; covering about 165 acres of land. Another significant area of potential flooding is located on the north side of the river in the Jefferson Street area. Flooding in this area is associated primarily with Newton Creek. During periods of high run-off on the South Umpqua, floodwaters back up into the low lying areas along Newton Creek, involving about 75 acres of land between the river and Stewart Parkway. The Fairhaven/Stanton Street area described above is, for all practical purposes, completely urbanized with residential development. While little new development is expected to occur in the area, future redevelopment must be planned with consideration of the potential flood hazards. The Jefferson Street area is also residential in nature, but there is some large parcels of yet undeveloped land. These vacant areas lie within the floodplain of Newton Creek and can experience up to ten feet of standing water during a 100-year flood.

FIGURE II
FLOODWAY BOUNDARIES



SOURCE: US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, FLOOD INSURANCE ADMINISTRATION, FLOOD INSURANCE STUDY, DOUGLAS COUNTY, OREGON.

Deer Creek, which enters the South Umpqua River from East Roseburg, also has a history of flooding. However, Deer Creek has a relatively narrow floodplain and only poses significant problems near its confluence with the South Umpqua. Past floods have resulted in several feet of standing water around the intersection of Jackson Street and Diamond Lake Boulevard; extending up Diamond Lake Boulevard to Boston Street. Future development of the currently vacant lands near Deer Creek in the Diamond Lake Boulevard/Douglas Street area must also be planned with consideration of potential flood hazards. Newton Creek north of Garden Valley Boulevard to the I-5 freeway floods adjacent land and will have an impact on the development of that area. Studies need to be accomplished and planning applied that will guide development in avoiding flood hazards and protecting the function and value of the creek.

The North Umpqua River passes through the Winchester area at the extreme north end of the urban area. The North Umpqua has historically experienced fewer and less extensive floods than the South Umpqua. In the Winchester area, the North Umpqua River has a relatively narrow floodplain, owing to its higher banks. In this area, most buildable land along the river has already been developed, and most homes are situated well above the 100-year flood level. While the threat of flooding in the area must be recognized, few areas of potential new development lie within the hazard area.

The City of Roseburg adopted its first floodplain development ordinance in 1968. After the establishment of the Federal Flood Insurance Administration, the city updated its floodplain regulations to comply with the federal program. The new ordinance was adopted by the City Council on April 26, 1977, and was accepted by the Flood

Insurance Administration shortly thereafter. Enforcement of the city floodplain development ordinance is the joint responsibility of the City Planning, Building and Public Works Departments. The city's floodplain development ordinance is incorporated into the Comprehensive Plan by reference.

The vast majority of existing development located within flood hazard areas was constructed prior to any floodplain regulations. Although the present regulations do not prohibit development within the floodplain if certain flood proofing standards are met, much of the land which was vacant prior to the adoption of the standards has been passed over and remains undeveloped. The assumption is that these lands have not been urbanized because of the added costs associated with floodplain development. If other, more suitable land had not been available for urbanization, there would have undoubtedly been more incentive for developers to incur the additional cost of floodplain development. The result, of course, would be higher cost housing located on less suitable land.

Through the planning process, the incentive for developers to utilize lands outside flood prone areas can be enhanced by ensuring adequate supply of buildable land. Findings from the 1980 land use survey reveal a total of 728 acres of flood prone land within the urban growth boundary, of which 133 acres, or 18 percent, are classified as urbanizable. The remainder are either within the floodway and cannot be developed, or are designated for such uses as parks and open space. The urbanizable flood prone land represents only about 2.5 percent of the total urbanizable land contained within the urban growth boundary, and could theoretically accommodate about 530 dwelling units within the urban low density residential designation. The additional 530 dwellings would

represent less than three percent of total projected Year 2000 housing stock. By not including vacant floodplain lands within the buildable lands inventory, an equal number of acres can be added to the total area to be contained within the urban growth boundary. The result will be a slight increase in the total urban growth area, while furthering the city's goal of encouraging more affordable housing opportunities and providing an incentive to locate urban development in more suitable locations.

Hazards to Development - Steep Slopes

The Roseburg urban area is characterized by extreme topographic variables, with slopes ranging from nearly level ground to over 40 percent incline. While the fast majority of the area's existing urban development is situated on land having slopes of less than twelve percent, an increasing proportion of new residential development has been occurring on steeper ground. Many of the hillsides surrounding Roseburg offer pleasing views and the demand for suitable building sites is high. Unfortunately, hillside development presents the potential for damage or destruction to life an property from the mass movement of overlying soils.

Mass movement is the down slope movement of earth material consisting of soil, unconsolidated rock debris, sand, alluvium, or consolidated weathering bedrock. In the Roseburg area mass movement can affect a few square feet or several acres and usually consists of soil creep, earth flow, or slumping. Rock fall can also occur at the face of cliffs along roadway cuts and in rock quarries. Soil creep is defined as a slow down slope progression of soil material and may be recognized by the bowing of trees on a hillside, or the tilting of fence posts, utility poles, and other structures.

Earth flow is a more rapid movement of soil, demonstrating a break or scarp on the uphill side of the flow. The general topography in the midst of the flow will usually be broken and jumbled and no regular drainage pattern will develop. Shallow sag ponds may also be evident with irregular mounds.

Perhaps the most common hazard associated with steep hillsides in the Roseburg area is slumping. Slumping is similar to earth flow in that it is a relatively rapid mass movement. A scarp is usually developed on the uphill end of the slump, and a toe formed at the downhill end. The toe will usually protrude out somewhat, creating a steeper slope, while the top of the slump may settle and become almost flat. To the inexperienced, this flat area at the top of the slump may appear to be a "bench" ideally suited for a homesite. Constructing a home at the top of a slump can prove to be a very costly and dangerous proposition.

The principal hazards associated with mass movements are to structures and public facilities such as roads, water mains, sewer lines and other underground utilities. Usually the rate of mass movement is a slow enough that precautions can be taken to protect lives, however, under extreme conditions a sudden movement of earth mass an result in loss of life as well.

In the Roseburg urban area the hazard of damage to facilities and structures is usually the result of very slow earth movement; perhaps occurring over a period of many years. However, mass movement can be accelerated or initiated on an otherwise stable slope by development activities in the area. Construction on a flow or slump will

increase the load on the unstable earth mass, creating a more unstable condition. Development activity, if not conducted properly, can change the natural drainage pattern on a slope, causing more water to soak into the soil and increase load it may bear. Increased groundwater content in a soil mass can initiate or accelerate movement along the bedding plane by lubricating the contact point between bedrock and overlying soil. Excavation at the toe of a slump can also result in the reactivation of movement, posing hazard to otherwise stable surrounding areas.

Although there is presently no inventory of hazardous slopes in the urban area, potential mass movement areas can be anticipated over a wide range of local topography. Most local mass movement hazards are associated with slopes in excess of 25% in conjunction with certain types of native soil. The natural hazard map identifies areas particularly prone to mass movement. It should be noted, however, that the map only attempts to give a generalized picture of potential hazards and should be regarded as a detailed inventory. Under the right conditions any hillside can pose some potential for instability, particularly when subjected to development activity.

Hillside Development

Despite the constraints of technical engineering problems and additional development costs, hillsides offer very attractive and increasingly sought after homesites. While the degree of both cost and development difficulty generally increases as the degree of slope increases, hillsides exceeding 25% slope are usually considered those requiring the most technical consideration prior to development. The 25% figure is, however, somewhat arbitrary since the degree of hazard and building

difficulty is also directly related to the soil and underlying geology. A slope with one soil type will have different properties than an equally steep slope with another soil type. However, when slopes of 25% or greater are encountered, specialized engineering and construction techniques are nearly always required.

Many cities have adopted special hillside development standards to ensure proper consideration of all potential hazards associated with development on steep slopes. Such special regulations are often necessary because traditional standards (such as for street construction) simply cannot be applied to areas with steep slopes. Commonly used subdivision or street development standards often specify that road grades shall not exceed 16%. However, by applying standards based on sound engineering and construction techniques, streets can be safely built to a steeper grade. By reducing the curb-to-curb road width and minimizing sidewalk requirements, the hillside contour and road gradient can be maintained. Also, by diminishing road width, less cut and fill is usually required, thereby reducing the amount of exposed cut banks and the amount of fill necessary and thus lowering the chance of slumping or erosion. However, by reducing road width, off-street parking may be required or parking at least limited to one side of the street. Design of street intersections on hillsides also needs careful planning consideration due to potential hazards associated with turns, vision clearance, pedestrian safety, and the difficulty of starting from a stop at a steep intersection. Steep streets also pose special problems for heavy vehicles, especially fire equipment. Hillside development must be planned with forethought given to emergency vehicle access and pedestrian safety.

Steep slopes pose special problems for homesite development not encountered on flatter ground. On fairly level ground a homesite can be prepared with little difficulty, but as slope increases it becomes more difficult to obtain a level area and special techniques, such as stair stepping and retainer walls become necessary. As a general rule most homes require 30-40 feet of level area, unless other building techniques or designs are used. To obtain a forty foot side level area on a 25% slope, a ten foot high cut bank is required. As the degree of slope increases, earth pressures increase and more engineering is required to build acceptable retaining walls. In some areas it may be more practical to sink foundation footings to the underlying bedrock. This usually results in even higher construction cost and more elaborate engineering, but has less impact on the physical characteristics and native vegetation of the site.

The effects of cuts and fills, whether for streets or homesites, has a cumulative effect on the stability of hillsides. As more development occurs, the chance of slippage, slides, slumping and erosion increases. A well engineered retaining wall, for example, may have been constructed to withstand the expected loads of earth pressure, but may prove quite inadequate when later development on adjacent sites alters the stability of surrounding soil masses. Engineering and construction requirements for each building site should be considered in light of surrounding development activity. The planned unit development (PUD) approach lends itself very well to areas with special problems such as steep slopes.

Additional factors which increase costs to developers, and in turn to the consumer, are construction costs for public facilities and utilities. The cost of installing sewer and water lines, for example, increases dramatically on hillsides because of

geological and soil factors such as bedrock close to the surface, rock outcroppings, soil movement, and the length of service lines affected by odd lot design due to topography.

Drainage is also a major concern in hillside development. Surface water which is allowed to flow downhill gains velocity and force and can quickly begin to erode exposed cuts, fills and other exposed areas. Special standards for controlling runoff are an important consideration for any hillside development.

Because of the number of variable sand trade-offs associated with hillside development, in terms of cost, building technique, aesthetic quality, etc., development standards must be flexible yet sufficiently stringent to ensure the long range public interest is protected. Historically, the City's zoning and subdivision ordinances have applied the same development standards to hillsides as those used in the flatter areas of the city. With more and more demand to develop the area's steeper ground, these standards may need to be reassessed and revised in order to properly guide future hillside development. The implementation of special hillside development standards could ensure well engineered, safe and aesthetically compatible residential areas on many of the hillsides throughout the urban area.

Water Service as a Factor of Urban Growth

A major premise of the Roseburg Urban Area Comprehensive Plan is that all land designated for development within the urban growth boundary will, over time, develop to a density requiring the full range of urban services. Perhaps the two most important and basic services necessary to accommodate urban development are sewer and water.

In areas such as Roseburg, where development is occurring over a fairly wide range of elevations (400 feet to 1000 feet elevation), the provision of services like sewer and water deserves special consideration. Compared to water service, the provision of sanitary sewers is relatively simple, in that sewage in most cases simply needs to flow downhill, allowing gravity to do the work. Therefore, elevation in and of itself poses little constraint to the extension of sanitary sewer service. The extension of water service is quite a different matter.

Domestic water service is based on a pressure system maintained by storage reservoirs located at specific elevations. As is discussed in more detail in the Public Facilities and Services Element, the Roseburg water system provides service at two levels: the Low service level provides water up to an elevation of 630 feet, serving the vast majority of the urban area; and, the High service level, which provides water to areas between 630 feet and 830 feet, though most areas served by the high service level are below 800 feet. There are a few isolated areas where water is boosted by special pumps to serve elevations approaching 1000 feet, however, these are small extensions designed to serve only a few homes and are not generally considered as an integral part of the overall system.

Since each service level covers an elevation range of 200 feet, the addition of a third service level would provide water up to an elevation of 1030 feet, a fourth up to 1230 feet, etc. As each new service level is added, the cost of developing and operating the system increases. Water must be pumped from one service level up to the next and each level of rise adds significantly to the energy costs associated with

transmitting water from treatment plant to user. Another factor is the lower population density or number of users at the higher elevations. Above an elevation of about 630 feet the number of homes which can be built on hillsides or ridge tops decreases dramatically. (It is interesting to note that there is a very close correlation between the 630 foot elevation level and the beginning of hillsides which have slopes predominately in excess of 25%.) This leaves fewer users to bear the added cost of expanding the higher service level. However, in actuality the disproportionate cost per user at the higher service level is spread out over the entire system and the high elevation water users are, to a degree, subsidized by the majority of users within the lower service level. Three areas are presently provided water service above 630 feet elevation.

In the Beulah Street/Cloverdale area the city has a 22,000 gallon reservoir which serves up to an elevation of 720 feet, however, the limited storage capacity of this facility restricts further urban development in the area. There are some homes in the area which are actually located above the 720 foot service level, but are served by a pneumatic pressure system extension. The Roseburg Utility Commission has recommended urban development in the Beulah Street/Cloverdale area be permitted to expand to an elevation of 820 feet in order to achieve more efficient utilization of facilities currently serving above the low level service area.

A second high level water system exists in the Newton Creek Road area. This system extension serves to a maximum elevation of 720 feet and is presently operating at design capacity. There is no storage capacity above the 630 foot service level in this area; thus, existing development above 630 feet is served via a pneumatic pressure system. The Roseburg Utility Commission has recommended urban development in the

Newton Creek Road area be expanded to include all territory within the North Roseburg Sanitary District. The district boundary generally corresponds to the 820 foot elevation.

The third high level service area is located in the Terrace Drive/Summit Drive vicinity. This system is backed by a 100,000 gallon reservoir which serves a limited area up to 930 feet elevation. Approximately 50 dwellings located above the 930 foot level are served by a pneumatic pressure extension. Both the reservoir and pressure extension are operating at design capacity. The Roseburg Utility Commission has recommended no further extension of this high-level sub-system.

In establishing the location of the Roseburg urban growth boundary, the efficient utilization of existing water system facilities was given high priority. Generally, areas above an elevation of 650 feet which are not served by a high-level system were excluded from the urban growth boundary. An exception to this criteria is the area above Kline Street, north of Garden Valley Boulevard. Although there are no facilities currently serving above 630 feet elevation, transmission mains to the area have been deliberately sized to accommodate urban development within the boundaries of the North Roseburg Sanitary District. The urban growth boundary corresponds to the district boundary in this area.

Although several areas were included within the urban growth boundary on the basis of being "committed" to urban services, these areas do not exceed the amount of land needed to accommodate projected growth over the course of the planning period.

THE LAND USE PLAN MAP

Introduction

The Land Use Plan Map is a graphic representation of the goals, objectives and policies found throughout the text of the Comprehensive Plan. The Land Use Map shows the outline and location of the various land use allocations defined and discussed below and the land use designations indicate the predominant type of use in each area. The boundaries of the land use designations, while more precise than the traditional "broad brush" approach employed in previous plans, do not preclude a reasonable transition of uses.

Further, no attempt has been made to delineate the location of every existing or potential future "spot use" such as a church or neighborhood convenience store. Small scale uses related to the surrounding neighborhood may, in accordance with written Plan policies, be established without regard to the general map designation. Existing uses, where properly zoned, whether or not shown on the map, are recognized as appropriate and permitted uses. Greater specificity and detail may be provided later with the development of special neighborhood plans. Zoning is the process whereby the land use map designations, the decision to recognize existing uses, and the Plan's written policies are weighed, interpreted and implemented. Thus, zoning is the ultimate control over the specific uses permitted on any given lot or parcel of land.

The primary intent of each land use designation on the Land Use Map is threefold. First, they are intended to define the relationship of the various land use designations in light of the written Plan policies from which the map is derived. Second,

the designations are to prevent a mix of incompatible uses that could occur if the intent was not specified graphically. Finally, they indicate the predominant type of land use, and in a generalized way, the permissible mix of other compatible uses.

Finally, the Land Use Map is drawn at an urban area wide scale implying the need for more detailed supplemental planning, such as at the neighborhood level. Both the map and the plan text provide the overall framework within which more detailed planning can occur when deemed necessary and appropriate.

A description of each designation shown on the Land Use Map follows:

Residential Uses

There are three residential designations on the Land Use Map: URBAN LOW DENSITY RESIDENTIAL, URBAN MEDIUM DENSITY RESIDENTIAL, and URBAN HIGH DENSITY RESIDENTIAL. The predominant use of land within these three designations is for urban residential purposes. There are, however, a number of other compatible land uses that are permissible and provide services to the individuals living in the residential areas. Examples of compatible land uses consist of such things as churches, schools, parks and convenience-type neighborhood shopping facilities, etc. The residential designations are separated into three density categories to ensure a variety of housing types throughout the urban area.

URBAN LOW DENSITY RESIDENTIAL provides for a residential density up to six units per gross acre. The land use pattern is predominantly single-family homes but

also includes duplexes and mobile homes where determined appropriate through the application of zoning. As in all residential designations, planned unit developments are encouraged.

URBAN MEDIUM DENSITY RESIDENTIAL provides for a residential density ranging from seven to fourteen dwelling units per gross acre. The land use pattern is a compatible mixture of single-family homes, mobile homes, duplexes, three to eight unit apartments, townhouses, condominiums, and mobile home parks where specifically permitted by applicable zoning.

URBAN HIGH DENSITY RESIDENTIAL provides for the full range of residential types at densities ranging from fifteen to forty dwelling units per gross acre. The land use pattern is predominantly multi-family residential though single-family homes are permitted.

Certain areas designated for residential low and medium density may be appropriate for development to higher densities when part of a planned unit development, the overall average density of which does not exceed the maximum designated density of the surrounding area, and the higher density development will not adversely affect adjacent residential areas.

COMMERCIAL areas designated on the Land Use Map are intended primarily for commercial activities; however, some non-commercial uses may be appropriate on a site-by-site basis and may include limited residential use in conjunction with a permitted commercial use. Other non-commercial uses such as governmental or institutional

uses may also be appropriate. This designation indicates areas which contain regional and community level shopping and service facilities. Not all neighborhood and convenience shopping facilities are indicated on the Land Use Map, nor are all existing commercial uses.

Failure to designate areas for neighborhood and convenience commercial facilities is not meant to preclude the establishment of such uses through the application of zoning where they are compatible with surrounding uses and are consistent with the written policies of the Comprehensive Plan.

The level and type of commercial activity appropriate to a specific site is the key determinant for the application of a specific commercial zone to that specific area or site.

PROFESSIONAL OFFICE uses fall within this special category of commercial activity which is selectively applied to areas where the full range of commercial development would be inappropriate. Uses appropriate under this designation include administrative, professional and business offices including legal, medical, accounting, architect, real estate, finance, insurance and other similar uses. The professional office designation implies low-intensity office uses which utilize harmonious exterior design and landscaping to serve as a transition or buffer between residential and more intensively developed properties.

INDUSTRIAL sites are identified on the Land Use Map to provide for the full range of industrial activity. Specific industrial uses will be located and regulated

through the application of specific industrial zoning districts. The application of industrial zoning will be based on the following criteria:

Heavy Industry: These industries are generally involved n primary processing of raw materials into refined materials in large volumes, which often require large energy supplies and large volumes of raw materials. Processing usually generates liquid or solid wastes, air pollutants, and other emissions, such as noise vibration, heat and light. Raw materials require heavy transportation, rail and truck and the labor force size is normally large. Parcels of land within this classification should be relatively large so as to enhance their suitability for heavy industrial operations. in order to ensure an adequate supply of land for future heavy industry needs, non-industrial uses such as residential or retail commercial should not be permitted in the heavy industrial districts. This does not preclude the use of a dwelling in conjunction with an industrial use, such as for on-site security.

Light and Medium Industry: Light and medium industries are markedly different from heavy industries in that they are generally involved in the secondary processing of materials into components, the assembly of components into finished products, transportation, communication and utilities, wholesaling and warehousing. The external impact from these uses is usually minimal. The need for transportation is usually met by truck, although rail and air transportation may be necessary. The labor force varies from small to large. Activities are generally located indoors, although there may be some outside storage.

PUBLIC/SEMI-PUBLIC lands are designated on the Land Use Map to identify existing and potential sites for such uses as schools (public and parochial), hospitals, churches, cemeteries, fairgrounds, airports, and recreational facilities other than parks, as well as governmental, institutional, and cultural activities. The application of specific zoning more precisely defines permitted uses and activities within this designation.

PARKS/OPEN SPACE AND HAZARD AREAS designation identifies regional, community and neighborhood parks as well as other public and semi-public open space area including golf courses, nature areas and some areas unsuited for development due to high hazard from flooding or other physical conditions. This designation does not preclude all development, but does imply a high priority for maintaining open space areas in a relatively natural state. Standards for development in open space areas are spelled out in zoning, subdivision, floodplain and other pertinent ordinances.

RESIDENTIAL/OPEN SPACE designates areas within the Urban Growth Boundary which have been identified as having significant scenic, cultural or economic value to the urban area, but which under controlled development conditions are also suitable for limited residential use. Planned Unit Development approval is required to ensure retention of the site's natural character and/or economic benefit to the community. Maximum average density is one dwelling unit per three acres. The provision or full services to such areas may be cost-prohibitive and review of the economic impacts of providing urban services shall be a requirement of the Planned Unit Development review process. Areas currently designated as Residential/Open Space are:

- property south of the Keller Lumber Company location, known as "Mast Hill", which partially intrudes into the

approach zone north of the Roseburg Municipal Airport. In order to preserve the viability of the airport as a major regional transportation facility, development which further protrudes into this approach zone, or which presents a safety hazard, must be prohibited.

- a 500-foot "buffer" surrounding the City's Goedeck Road sewer treatment plant site. The existing plan is intended to be expanded to serve as a regional treatment facility, thus necessitating the need to reduce potential future impacts on higher density residential development which might otherwise occur adjacent to the plant site.

Urban Growth Boundary

The location of the Roseburg Urban Growth Boundary is based on consideration of the following factors:

1. Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;
2. Need for housing, employment opportunities, and livability;
3. Orderly and economic provision for public facilities and services;
4. Maximum efficiency of land uses within and on the fringe of the existing urban area.
5. Environmental, energy, economic and social consequences;
6. Retention of agricultural land as defined, with Class 1 being the highest priority for retention and Class VI the lowest priority; and,
7. Compatibility of the proposed urban uses with nearby agricultural activities.

1. The Urban Growth Boundary contains an amount of land necessary to accommodate the projected population of the urban area, based on the findings of the Population Element and the anticipated housing, employment, service, and other needs of the projected population (see Housing, Economic, and previous sections of this Element). These land needs and the acreage provided within the Urban Growth Boundary are summarized in the Buildable Lands Inventory contained in Table LU-11.

2. The area within the Urban Growth Boundary contains sufficient designated lands to provide for and allow a wider range of housing type and choice. Appropriate industrial, commercial, professional office, and institutional areas are arrayed for a wide base of employment and entrepreneurial opportunities. The variety of topographical and locational offerings made possible by the chosen Urban Growth Boundary, including such various habitats as relatively dense urban environments, river frontage, hillside sites, suburban tract subdivision, mobile home parks, planned office parks, etc., provides for a wide range of choices of "lifestyles". It is the range and availability of these lifestyle choices which are livability attractants to visitors, new industries, and retirees and other new locators in the area.

3. In general, the location of the Boundary strongly promotes an orderly and economic provision of public facilities and services. However, due to the nature of the topography of the Roseburg urban area, the economic feasibilities and efficiencies of the various facilities and services must be weighed and balanced, and reasoned choices made. They must also be balanced with the need to provide a suitable range of housing and other choices, and to preserve, enhance or provide for livability options.

   The Boundary in many places follows historic sanitary district or City limit boundaries, which were acknowledged as delineating urban service commitments. In many other areas, the main water service elevation was utilized in a generalized manner, sometimes following or connecting with nearest appropriate property line, roadway, perennial stream, or identifiable ridgeline or topographical "break". In many areas, the main water service elevation is exceeded by the historic boundaries, or, by choice, in order to provide for a) a relatively compact urban form (as such may be obtainable in the Roseburg topographical situation) and, b) an acceptable continuation of a local trend of developing higher elevation hillsides and ridge tops to provide for both clustered and detached residential housing opportunities, which provide desired variety.

4. The Boundary chosen provides for a maximum efficiency of land uses within the urban area and urban fringe, within the context of the existing topography. Compactness has been south where possible, particularly in the provision of residential lands. Ideal compactness is not possible when the need for suitable industrial lands is considered. Long arms have been extended in the easterly direction along the North Umpqua Highway and northerly to the Wilbur Area along U.S. Highway 99 and Interstate 5. These somewhat ungainly (from a map perspective) extensions are necessary to provide the types of vacant land necessary to industrial development, i.e., reasonably flat, transportation-serviced, etc. In both cases, the "extensions" are following previously established trends of industrial development. Indeed, industrial land choices in the Roseburg area are extremely limited by the topography, and the extension areas are essentially the only choices outside of the existing urban core, which does not contain sufficient acreage of industrial lands to meet the projected need.

5. The chosen Boundary location reflects a balancing of environmental, energy, economic, and social factors. Choices of compactness versus needed extensions; flatland vs. hillside, natural, silvicultural or agricultural resource lands vs. non-resource lands; etc., are all issue areas in which judgments have been made. Attempts at compactness and the inclusion of south-facing slopes will tend to promote some energy savings. Sufficient land has been included within the Boundary so as not to place undue pressure towards floodplain development, although the portions of the Roseburg floodplain held in private ownership are already largely developed to detached residential homesites. The Boundary is generally located to provide for efficient urban services and facilities; in certain cases, such as vacant high elevation areas to the northeast of the city center, water service provisions will involve the somewhat higher costs of high-level installations. This factor is balanced by the benefits of the relative urban compactness that inclusion of the area provides over other possible candidates for urban residential development. Inclusion of this area also promotes a continuation of the availability of chosen residential lifestyles. Removal of this type of livability choice would have adverse social consequences, on the particular consumer and indirectly on the community as a whole.

6. The Boundary location has been chosen consciously to avoid expansion into areas of significant agricultural productivity or potential, as evidenced by soil type and parcelization patterns.

7. The Boundary location has generally utilized natural features to separate urban and urbanizing areas from significant agricultural areas. Boundary inclusion of areas generally west of the City limits into the Garden Valley area or the Charter Oaks (Calkins Road) areas has not been chosen, even though some acreage residential development has occurred and certain areas are designated as committed by Douglas County. Inclusion of the Charter Oaks area would tend to set a precedent or urban expansion into areas in close proximity to agricultural activities, without topographical barriers, which would have a potential for adverse impacts on the agricultural uses and would tend to promote additional pressures for further urban development northwards into the Garden Valley area.

   Additionally, critical major urban facilities improvements would be necessary for any further development of the Charter Oaks area; significant road improvements to Calkins Road, which is highly inadequate for arterial-level traffic, and major sanitary sewer service improvements, including a trunk interceptor line across the South Umpqua River. Should these facilities become feasible, the Charter Oaks area could be considered for inclusion within the Urban Growth Boundary, as it was during the Comprehensive Plan development process, with attendant assurances of mitigation of the potential adverse impact on agricultural lands in the proximity.

In summary, the boundary represents a reasoned balancing of the applicable locational factors. Conflicting needs of choice, economy, conservation, efficiency, etc., have been weighted, and difficult choices have had to be made. Topography had dictated compromise. Compactness has necessarily been sacrificed for economic needs, and vice versa, where deemed appropriate. Historic service commitments have been recognized, and respected. Resource lands have been acknowledged, and protected. The range of choice and livability has been maintained.

The purpose of the urban growth boundary, aside from compliance with state law, is to provide for an orderly and efficient growth program based upon the concept that the City of Roseburg is the logical provider of most urban services and, as such, should have control over its ultimate form. This is not to imply, however, that an urban growth program sets an ultimate limit to growth. Rather, it provides a guide for urban expansion and sets limits within a reasonable planning period. The decisions of where and when to allocate scarce public resources becomes the principal determinants of where and when development takes place.

The amount of undeveloped or urbanizable land within the urban growth boundary has been carefully calculated to include an adequate supply to meet the demand for a projected year 2000 population of 44,329. However, unless the community consciously decides to limit future expansion of the urban area, the urban growth boundary may be expanded in future plan updates (at least every five years) so that before the year 2000 it will include more urbanizable land than is presently reflected on the land use map. Accordingly, periodic updates of land use needs and revision of the urban growth boundary to reflect extensions of the planning period will insure that an adequate surplus of urbanizable land is always available.

The key to addressing the various land use needs described in preceding sections of this element of the Comprehensive Plan is not so much the initial establishment of the urban growth boundary, but rather in maintaining an adequate and reasonable supply of developable land at any point in time. Continual monitoring of the supply of urbanizable land within the boundary will help insure the orderly conversion of urbanizable land to urban use, provide flexibility for market forces to operate, and allow for the orderly and economic extension of public services.

Amendments to the Urban Growth Boundary shall be processed as Comprehensive Plan amendments, and shall be subject to findings that the Boundary amendment complies with the Statewide Planning Goals, particularly the seven Boundary location factors contained in the language of Goal 14 (Urbanization) and the

procedures and requirements as set forth in the Statewide Land Use Planning Goal 2 for goal exceptions.

Annexation

The logical and orderly extension of services, and the resulting growth of the urban area, has been discussed at length throughout the text of the Comprehensive Plan. However, the growth of the City itself must also be considered.

Growth can occur within the present City limits by "in-fill" of vacant or undeveloped land, or by adopting higher density zoning and encouraging more intensive land uses. The City can also grow by annexing adjacent unincorporated areas. In fact, Roseburg's growth by annexation has been considerable during the past 20 years. Between 1960 and 1980 Roseburg's size has nearly doubled.

Roseburg benefits from annexation in several ways. Adding to the population of the city results in increasing non-property tax revenues which are disbursed from state and federal government on a population-related basis. Annexation can also result in expanding the City's industrial and commercial tax base. Irregular city boundaries are often problematic, particularly when adjacent unincorporated areas are fully urbanized, in that they do not facilitate service delivery in the area of fire and police protection. Annexations can facilitate the adjustment of irregular or illogical city boundaries.

Annexation should, however, be in the interest of both the city and the area to be annexed. Annexations clearly favorable to the city are industrial property, commercial areas and higher-value residential property. Annexations least favorable to the city, from an economic standpoint, are lower-value residential areas with inadequate facilities, and tax exempt lands and buildings. Annexation is clearly favorable to both parties when excess capacity in city services and facilities can be put to work providing lower costs for all users, and when two sets of administrative personnel and overhead costs can be replaced by one.

When excess capacity in city systems can be extended to areas lacking adequate facilities and services without major capital investments, both parties benefit. Both capital and operating costs can be spread over a wider area, reducing costs to all users. The newly annexed area gets improved facilities and services at relatively low cost and the city uses its systems more efficiently. In the Roseburg urban area, however, this mutual benefit relationship between the city and adjacent unincorporated areas cannot be so easily defined. The vast majority of the urbanized unincorporated area is already provided with an adequate level of services; both from special districts (sewer and fire protection) and county services (police and street maintenance), as well as the provision of water service via the city's water system. (Refer to Public Facilities and Services Element for a more in-depth discussion of services in the unincorporated area.) While annexation of areas already served by basic public facilities does not require an outward extension of the city's systems, it does, in some cases, actually compound the problem of overlapping jurisdictions. The ultimate result is often contrary to the basic concept of city government: to have the full range of urban services provided by a single layer of government.

Roseburg has sources of revenue in addition to property taxes, which are not available to special districts operating in the urban area. Most notable are state and federal tax entitlements (such as the state gas, liquor and cigarette taxes, and federal revenue sharing), and the various fees, fines, license and permit charges that cities are authorized to levy. These revenues constitute a major portion of city revenues. Since special districts serving citizens in unincorporated areas do not have these sources of revenue, they must finance their operations through user charges or property taxes exclusively. Table LU-10 provides a comparison of property taxes and user charges for the City of Roseburg and several neighboring unincorporated areas. Annual property taxes are based on an average $60,000 residence. Service charges are average annual costs for a single-family dwelling.

In order to maintain an adequate supply of available surplus land to allow development to occur, annexation should take place in advance of demand in order to allow for the provision of public capital improvements, such as sewer trunk lines, arterial streets, and water trunk lines. Usually, capital improvement programs are "middle-

range"; geared to three to six years into the future. The time between annexation and the point of finished construction usually involves several steps: (1) the actual annexation and rezoning of the land (with accompanying public hearing processes, (2) filing and approval of a subdivision or planned unit development (with accompanying public hearing processes), (3) extension of public capital improvements (in accordance with programming and funding availability) and (4) construction of the private development (including local extension of streets, sidewalks, sewers, water, electricity, etc., and construction of dwelling units or businesses). The time period between initiating annexation and sale of a home or opening of a business varies, but can easily take from two to six years.

TABLE LU-10 Comparative Annual Property Tax and Service Charges Within Roseburg Urban Area For Average $60,000 Residence				
SERVICE AREA	**PROPERTY TAX***	**SEWER FEE+**	**WATER FEE+**	**TOTAL ANNUAL COST**
City of Roseburg (Full Service)	$930.00	$31.00	$117.00	$1078.00
Cloverdale Area (NRSD, DCFD 2, City Water)	$736.00	$42.00	$117.00	$895.00
South Winchester (NUSD, DCFD 2, City Water)	$765.00	$42.00	$117.00	$924.00
North Winchester (NUSD, DCFD 2, UBSA)	$736.00	$42.00	$295.00	$1073.00

Large scale and timely annexations of undeveloped and underdeveloped areas should be encouraged to enhance the opportunity for compact urban growth, an efficient land use pattern, and the orderly and economic provision of public facilities and services.

A workable approach is for the city to develop an annexation program which will ensure at least a five year surplus of land. Such a range slower than other sectors and has not kept pace with population growth. While prospects for an increased rate of growth in the industrial sector are uncertain. the land extensive nature of industrial activity requires adequate reserves to assure opportunities for unexpected economic growth. Current data suggests a reserve of 557 acres of industrial land is needed to assure opportunities for expansion of the industrial sector over the twenty year planning period.

7. Periodic flooding represents a significant natural hazard in the Roseburg urban area. Unrestricted development in the floodplain can result in threats to public safety and increased flooding hazards to other property. Both the City of Roseburg and Douglas County have adopted floodplain development regulations to ensure development is compatible with floodplain conditions.

8. Although much of the flood prone area around Roseburg has been urbanized, significant amounts of land within the floodplain have remained vacant due to the increase costs associated with floodplain development. The past availability of sufficient buildable land outside flood prone areas has contributed to the retention of floodplains as open space.

9. The Roseburg urban area is characterized by extreme topographic variables, with slopes ranging to over forty percent incline. An increasing percentage of new residential development is occurring on hillsides increasing the potential for damage or destruction to life and property from the mass movement of overlying soils.

Buildable Lands Inventory

The buildable lands inventory is an accounting of all vacant land within the urban growth boundary. All vacant lands were inventoried by the land use designation applied on the Land Use Map. This included vacant parcels in areas currently developed, and large vacant tracts of land. Because these vacant lands generally have no streets or roads, they are expressed in gross acres, as are need figures previously developed.

Not al vacant lands are fully urbanizable. Various constraints limiting development are accounted for. As stated on pages 605 and 606, flood prone lands which have remained undeveloped are generally not economically feasible to build upon and have not been included as buildable lands.

As stated on pages 608 and 609, ,there are no other specific hazard areas specifically identified, but rather areas which have a potential for hazard due to factors

relating to soil type and slope. The areas deemed to have hazard potential are subject to review prior to construction to ensure development density potential based on the weighting factors developed on pages 578-580.

To complete the buildable lands inventory, the gross acres of land needed by Land Use designation is compared with the gross weighted acres provided.

The results are shown in Table LU-11.

TABLE LU-11

BUILDABLE LAND NEED VS. BUILDABLE LAND PROVIDED

BY LAND USE CATEGORY

BUILDABLE ACRES NEEDED			BUILDABLE ACRES PROVIDED		ACRES OVER (UNDER)
LOW DENSITY RESIDENTIAL			Ac. x slope Weighting =	Adjusted Acres	
			466 x 1 (0-12%) =	466	
			697 x .70 (12-25%) =	488	
			871 x .40 (25+%) =	348	
				1302	
For Conventional Single Family	1141				
For Individual Mobile Homes	105		(Available for Mobile Home Development:	977*)	
For Duplexes	42				
		1288		1302	14
RESIDENTIAL OPEN SPACE - No Need (Mast Hill & Treatment Plant Buffer)				38	
MEDIUM DENSITY RESIDENTIAL					
For Conventional Single Family	134				
For Individual Mobile Homes	38		(Available for Mobile Home Development:	144*)	
For Duplexes	34				
For Mobile Home Parks	154				
For Multi-Family Units	59				
		419		421	2

*Minimum acreage assured upon annexation as per Housing Policy No. 7.

TABLE LU-11 (Continued)

HIGH DENSITY RESIDENTIAL					
For Conventional Single Family	68				
For Individual Mobile Homes	8		(Available to Mobile Home Development	40*)	
For Duplexes	9				
For Multi-Family Units	39				
		124		120	(4)
COMMERCIAL					
Commercial			254		
Professional Office			10		
				264	18
PUBLIC/SEMI PUBLIC	None Calculated			99	
INDUSTRIAL		731		723	(8)
			Weighted	2935	
			Unweighted 3599		
FLOOD PRONE			1071		
			GROSS TOTAL ACREAGE 4770		

*Minimum acreage assured upon annexation as per Housing Policy No. 7.

FINDINGS

1. The Roseburg urban area contains 5,394 acres of developed land; 2,273 acres inside the City and 1,541 acres in the unincorporated area. Streets and roads consume an additional 1,580 acres.

2. Residential uses consume the majority of urbanized land within the urban area; occupying 1,918 acres, minus streets and roads, or about fifty percent of all developed land.

3. Topographic features (slopes) have a significant influence on residential densities in the urban area. Depending on the degree of slope, single-family residential densities vary from about five dwellings per acre to one dwelling per two acres. Residential density, as reflected by the carrying capacity of different degrees of slope, must be considered when calculating future residential land needs.

4. Based on a projected year 2000 population of 44,329, an additional 1,831 acres (unweighted) of land will be needed to accommodate residential development over the 20-year planning period.

5. Commercial activity is the third largest consumer of land in the urban area; however, the amount of land converted to commercial use has increased at three times the rate of population growth. An additional 246 acres of land will be needed to accommodate commercial activity to the year 2000.

6. Growth in the industrial sector of the urban area's economy has been slower than other sectors and has not kept pace with population growth. While prospects for an increased rate of growth in the industrial sector are uncertain, the land extensive nature of industrial activity requires adequate reserves to assure opportunities for unexpected economic growth. Current data suggests a reserve

of 556 acres of industrial land is needed to assure opportunities for expansion of the industrial sector over the twenty year planning period.

7. Economic diversification will require an adequate supply of land suitable for a wide range of industrial development. Sites must be available which have access to needed public facilities, good transportation, are of sufficient size and have suitable physical characteristics.

8. Periodic flooding represents a significant natural hazard in the Roseburg urban area. Unrestricted development in the floodplain can result in threats to public safety and increased flooding hazards to other property. Both the City of Roseburg and Douglas County have adopted floodplain development regulations to ensure development is compatible with floodplain conditions.

9. Although much of the flood prone area around Roseburg has been urbanized, significant amounts of land within the floodplain have remained vacant due to the increased costs associated with floodplain development. The past availability of sufficient buildable land outside flood prone areas has contributed to the retention of floodplains as open space.

10. The Roseburg urban area is characterized by extreme topographic variables, with slopes ranging to over forth percent incline. An increasing percentage of new residential development is occurring on hillsides increasing the potential for damage of destruction to life and property from the mass movement of overlying soils.

11. Steep slopes pose special problems for homesite development not encountered on flatter ground. Standards designed to guide development on flat ground are not always applicable or adaptable to hillside development. The implementation of special hillside development standards could ensure well engineered, safe and aesthetically compatible residential areas on many of the hillsides throughout the urban area.

12. Water service in the Roseburg urban area is in most locations limited to a maximum elevation of 630 feet. Expansion of water service above 630 feet requires either the establishment of additional service levels (in 200 foot increments) or pneumatic pressure system expansions. Such upward expansion or extension of the system requires significant capital expenditures which add significantly to development costs.

13. There is sufficient urbanizable land in the Roseburg urban area within the service range of the City's main level water system to accommodate projected growth over the twenty year planning period while providing for a compact urban form.

LAND USE AND URBANIZATION OBJECTIVES

1. Maintain and enhance the quality of the urban area's livability and encourage the development of a variety of housing types to meet the needs and desires of the community.

2. Ensure the orderly and efficient conversion of land from rural to urban uses in response to urban needs.

3. Protect rural land and open space from premature urbanization, and when necessary to meet urban needs, utilize the least productive agricultural lands for needed expansion.

4. Shape and plan the urban form to provide for growth while preserving the special character of the Roseburg urban area.

5. Encourage development of suitable vacant, underdeveloped and redevelopable land where services are available, thus capitalizing on public expenditures already made for these services.

6. Direct development away from flood plains, hazard areas, stream banks, places with unique natural value, and other desirable permanent public open spaces.

7. Locate residential development in relation to the availability of employment, commercial services, public utilities and facilities and transportation modes.

8. Provide for higher residential densities where appropriate in the current urban service area to encourage a compact urban growth form.

9. Protect existing and proposed residential areas from conflicting nonresidential land uses while providing for compatible and functional mixed use development (residential and nonresidential).

10. Provide for adequate levels of housing, services, shopping, employment, transportation and recreation facilities for the City's residents.

11. Relate land use actions to housing, open space, recreation, transportation, utilities, shopping facilities, jobs, police and fire protection and other special needs.

URBANIZATION, LAND USE, AND GROWTH MANAGEMENT

URBAN GROWTH

GOAL

To manage growth in the Roseburg urban area through cooperative efforts of the City of Roseburg and Douglas County to insure the quality of life of present and future residents of the area, and to contain urban development and preserve adjacent resource lands by:

a. Establishing and periodically reviewing an urban growth boundary to identify and separate urbanizable land from rural land while insuring sufficient amounts of urbanizable land to accommodate the population needs for the year 2000.

b. Planning and developing a timely, orderly, and efficient arrangement of public facilities and services to serve as a framework for urban development.

POLICIES

1. The City of Roseburg and Douglas County hereby jointly establish an urban growth boundary for the Roseburg urban area, as shown on the General Land Use Plan Map and shall review the boundary every five years or upon request by the City or the County to jointly determine if changes are necessary.

2. Changes to the urban growth boundary, including either additions or deletions of land, shall be based upon consideration of the following factors:

   a. Demonstrated need to accommodate long-range urban population growth requirements consistent with State land use goals.

b. Need for housing, employment opportunities and livability.

c. Orderly and economic provision of 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.

g. Compatibility of the proposed urban uses with nearby agricultural activities.

Changes to the urban growth boundary shall also be in accordance with the procedures and requirements as set forth in Statewide Land Use Planning Goal (Goal 2) for goal exceptions.

3. The conversion of urbanizable land within the urban growth boundary to urban uses shall be guided by a growth management program which provides for the orderly and economically efficient extension of public facilities and services, while taking into consideration the need for an adequate supply of land to meet future housing requirements. The growth management program shall encourage the development of vacant lands that have urban services before extension of services beyond presently served areas.

4. The City and County shall jointly be responsible for the formulation of a growth management program within the urban growth boundary. The program shall establish general policies and strategies for the orderly extension, within the urban growth boundary, of at least the following facilities and services: Planning zoning, sewer, water, storm, drainage, transportation, parks and fire protection.

The program shall be developed through consultation among the relevant parties under the joint leadership of the City and County. in developing the program, the following shall be considered:

a. The views of the City of Roseburg and Douglas County with respect to the needs for development.

b. The views of School District 4 with respect to the need for educational facilities.

c. The views of special districts with respect to the impact on the extension of services upon their operations.

d. The public and private financial capabilities and responsibilities to finance growth.

e. The equitable distribution of costs between the general public and the new development.

5. Criteria for the programming of development shall be as follows:

a. The financial capability of the affected jurisdictions to provide certain facilities and services as authorized through their respective budgetary processes.

b. The technical requirements of sewer, water, transportation, and other master plans.

c. The need for sufficient amounts of land to maintain an adequate housing market.

The City shall provide levels of services to City residents consistent with community needs as determined by the City Council, within the financial

capability of the City, and subject to relevant legal constraints on revenues and their applications. These levels of services shall be provided for in the annual budget of the City. The annual budget shall include an evaluation of the trend of community needs and relevant services and the effect of the preceding year's growth on those trends and the City's capacity to respond to them.

6. The extension of sewer, water, storm drainage, and transportation facilities within the urban growth boundary shall be in conformity with an adopted growth management program.

7. The extension of major facilities, such as interceptors and transmission mains, shall be designed to accommodate expected densities as prescribed on the Land Use Plan Map.

8. Sewer and water service shall not be extended outside jurisdiction boundaries except as may be provided for through an intergovernmental agreement or upon agreement by the affected property owner to annex to the jurisdiction providing such service.

9. An opportunity shall be provided for all parties to the urban growth management agreement to comment on all proposals for annexation of property to the City.

10. New developments shall make maximum use of available land areas with minimal environmental disturbance and be located and designed to minimize such public costs as extension of sewer and water services, schools, parks, and transportation facilities.

11. Within the urban growth boundary, residential subdivisions, commercial and industrial development shall be permitted only within the service districts or within the City of Roseburg where service districts or within the City of Roseburg where public sewer and water services are available and other urban facilities are scheduled pursuant to an adopted growth management program. Exceptions to

this policy may be only be permitted if mutually agreed to by the City, the County, and the affected service districts.

12. Partitionings of property may be approved if the land division will not adversely affect the future development of adjacent lands and the proposed parcels are compatible with the pattern of development prescribed by the land use plan.

13. New development creates a demand for new facilities and services, and because of widespread public reluctance to accept continual increases in the cost of local government, an increased share of the costs of new growth shall be borne by the new growth itself.

14. A continuous 15-20 year supply of developable land shall be maintained within the urban growth boundary to avoid unnecessary increases in land prices created by artificial shortages of land.

15. Growth management program requirements and procedures should apply to those undeveloped properties beyond that part of the urban area which is already developed for urban uses.

16. The City of Roseburg, Douglas County, and Special Districts shall develop compatible standards for facilities construction and improvements for streets, sewer, and water mains and storm drains within the urban growth boundary.

17. The City, County, and Service Districts shall develop and coordinate capital improvement programs for public facilities within the urban growth boundary.

18. The City, County, and Service Districts shall develop and adopt financial programs which will provide funding to implement their respective capital improvement programs.

RESIDENTIAL DEVELOPMENT

GOAL

To promote and encourage residential densities and designs that conserve land and energy, minimize unnecessary and costly public service extensions and maintain the unique geographic character of the urban are; to enhance and protect the quality of existing neighborhoods; and to ensure varied living areas and housing types for residents of all income levels and an adequate supply of serviced, developable land to support such housing.

1. In designating residential densities throughout the urban area, the following shall be considered:

    a. The capacity of land resources, public facilities, and services.

    b. The public and private costs of providing necessary urban facilities and services.

    c. The character of existing neighborhoods.

    d. The need to accommodate increasing population within the Roseburg urban growth boundary.

    Residential uses and neighborhood facilities and services shall be located in relation to each other so as to:

    e. Provide convenient and safe access.

    f. Encourage the use of all facilities and services by residents.

    g. Avoid nuisances and hazards to residents.

h. Produce the most efficient and economic land use pattern, and avoid unnecessary duplication of facilities.

2. Residential areas shall be protected by zoning ordinance, subdivision ordinance, and other regulations from any land use activity involving an excessive level of noise, pollution, traffic volume, nuisances, and hazards to residents.

COMMERCIAL DEVELOPMENT

GOAL

To encourage and promote the health and vitality of the central City core as a focus of civic and business life and to encourage the following variety of commercial activities in selected outlying areas:

1. Community shopping and service facilities.

2. Neighborhood shopping and service facilities.

3. Convenience stores.

4. Commercial office structures.

5. Specialized shopping areas.

POLICIES

1. The Central Business District has been an continues to be an important part of the regional retail and service center of Douglas County. The City shall continue to encourage and promote this central core area as a civic and business center.

2. Development of new neighborhood and community shopping and service facilities may be approved only after review of development plan consisting of

maps and written statements as prescribed in the applicable development regulations.

3. Redevelopment of existing neighborhoods and community shopping and service facilities should be encouraged where appropriate.

4. Community shopping and service facilities shall be located close to major arterials and shall provide adequate parking and service area. The zoning ordinance, subdivision ordinance, and other appropriate regulations shall include provisions as to siting and development which discourage major customer traffic from outside the immediate neighborhoods from filtering through nearby residential streets.

5. Notwithstanding the existing development pattern along arterials and collectors committing an area to strip development, new commercial development shall be clustered and located to provide convenience goods and services for neighborhood residents or a wide variety of goods and services for a market area of several neighborhoods.

6. Commercial uses shall have convenient access to collector and arterial streets.

7. Commercial office uses may occupy a separate structure or may be used with compatible residential or commercial retail uses in the same structure where not otherwise in conflict with applicable zoning regulations.

8. Commercial development may be permitted only where adequate systems for transportation and sewer and water services have been provided or have been scheduled for construction.

9. The zoning ordinance, subdivision ordinance, and other regulations shall contain standards to minimize circulation conflicts between pedestrians, bicycles, automobiles, and other vehicles servicing all commercial developments.

10. Adequate off-street parking and buffer strips shall be provided for all commercial development. When appropriate, transit services and shelters may be provided in lieu of some off-street parking. Parking and loading facilities shall be designed so that ingress and egress driveways do not disrupt the efficient flow of traffic on arterial streets, intrusion into abutting uses is minimized, and safe and convenient pedestrian circulation is provided.

11. Zoning regulations governing the siting of commercial development shall take into consideration the relationship of adjacent development in terms of building height, mass, and activity.

12. Subdivision and zoning regulations should require landscaping to visually soften paved areas, reduce heat and glare, and to provide separation between buildings and pedestrian and vehicular circulation.

13. Siting regulations for commercial development shall be flexible so as to encourage public spaces such as open plazas, pedestrian malls, etc.

14. The outdoor storage areas shall be suitable screened from view of the public road and especially from adjacent residential uses.

15. Exterior lighting shall be designed to provide illumination to the site and not cause glare into adjacent properties.

INDUSTRIAL DEVELOPMENT

GOAL

To encourage and promote industrial development which strengthens the economic base of the community and minimizes air, noise, water, and visual pollution.

POLICIES

1. Sufficient land in large parcels should be zoned industrial to insure a competitive market for industrial sites.

2. The timely provision of appropriate public improvements including, but not limited to, water, sewers, storm drains, and roads should be provided to support industrial development in major manufacturing areas and other compatible locations.

3. The zoning ordinance shall allow appropriate on-site employee services and facilities in industrial areas. Traffic generated by industrial uses should be diverted away from residential areas, and should have convenient access to arterial or collector streets. Wherever practical, outdoor storage areas shall be screened from adjacent residentially designated properties.

4. Industrial uses shall be encouraged to locate in planned industrial parks in order to reduce site development costs, maximize operating economies, and achieve a more harmonious land use pattern; however, location within a planned industrial park shall not be a prerequisite of approval. Except in planned industrial parks, other land uses should be discouraged from districts that have been designated for industrial uses.

TRANSPORTATION DEVELOPMENT

GOAL

To insure the provision and coordination of transportation facilities and services that reflect desired development patterns and are timed to coincide with community needs and to minimize the adverse impacts of traffic on residential areas.

POLICIES

1. When practical, the circulation system shall utilize existing facilities and rights-of-way, and on-street parking shall be removed in preference to widening streets for additional travel lanes.

2. The transportation system should be located and constructed to preserve the character of the neighborhoods. The need for landscaping and noise reduction shall be considered in design.

3. Transportation facilities shall be designed and constructed to minimize noise, energy consumption, neighborhood disruption, cost, and social, environmental and institutional disruptions, and to encourage the use of public transit, bikeways, and walkways.

4. Traffic movement on arterial streets should be facilitated by limiting or controlling access wherever possible.

5. Public facilities, schools, shopping centers, industrial parks and planned unit developments should be designed, sited and constructed to accommodate and encourage transit service convenient to the public. The provision of covered bus shelters convenient to major entryways of public buildings and shopping centers should be encouraged.

SCHOOLS AND PARKS DEVELOPMENT

GOAL

To insure that the coordination of planning for school and park locations and siting is consistent with the Roseburg Urban Area Comprehensive Plan.

POLICIES

1. Planning for school and park locations and siting should be done in close coordination with ongoing comprehensive planning taking into consideration the neighborhoods they are to serve, any physical limitations, the impact upon the transportation system, projected residential growth patterns and pedestrian access.

2. Schools should be located to avoid serious distractions to study and classroom activity.

3. Acquisition of school and park sites should be coordinated with the City and County to further the joint acquisition and development of park and school sites to permit the joint use of school and park facilities.

4. Each school and park site should be located to provide the best possible access to the population served.

PUBLIC AND SEMI-PUBLIC BUILDINGS AND LANDS DEVELOPMENT

GOAL

To provide for an arrangement of public and semi-public facilities and services which complement private development and meet the needs of Roseburg area residents.

POLICIES

1. Principal local government, state, and federal offices should be encouraged to locate within the downtown area.

2. Major public and semi-public buildings shall be located on or near arterials and have well planned access and parking.

3. Community facilities should be well designed to fulfill their specified function, taking into consideration the needs of handicapped persons.

RESOURCE AREA AND HAZARDOUS AREA DEVELOPMENT

GOAL

To conserve open space, protect natural and scenic resources, and to protect life and property from natural disasters and hazards.

POLICIES

1. Where lands in agricultural use have been included within the urban growth boundary, the agricultural use shall be encouraged to continue until such lands are needed for urban uses. Properties in agricultural use should be considered for deferral of sewer and water assessments until annexation.

2. Development in the floodplain shall be regulated to preserve and maintain the capability of the floodplain to convey flood water discharges and to minimize danger to life and property.

3. New subdivisions and other development which occurs on property extending into the floodplain should be encouraged to utilize only that portion of the property lying outside the floodplain by employing Planned Unit Development or cluster-type development techniques.

4. Development in areas identified as geologically hazardous shall be permitted only to the extent the hazard can be mitigated without adversely impacting other properties.

5 Any proposed development shall be reviewed when located on slopes of 25% or greater. Such review shall include the study of soils, surface water drainage, and bedrock geology. The report of a professional engineer with special expertise in

these subjects shall be submitted as part of the study. Subdivision, major partitions, and Planned Unit Developments located on slopes of 13 to 24% shall also be the subject of such review; however, the Engineer of the public agency may waive the special review of development on slopes of 13 to 24% upon written findings by the engineer that such special review is unnecessary.

APPENDIX

SUB-AREA No. 1

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY												
OUTSIDE CITY	159.17		3.32	6.78	3.28	1.76				104.09		
TOTAL ACRES	159.17		3.32	6.78	3.28	1.76				104.79		147.15

SUB-AREA No. 2

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY												
OUTSIDE CITY	83.64	1.06	19.94	46.20	1.96	4.30	21.43	37.43	1.65		.52	
TOTAL ACRES	83.64	2.06	19.94	46.20	1.96	4.30	21.43	37.43	1.65		.52	74.35

SUB-AREA No. 3

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY							3.51			97.30	3.33	
OUTSIDE CITY	15.02	1.96	16.00	27.69	.66	4.09	10.83					
TOTAL ACRES	15.02	1.96	16.00	27.69	.66	4.09	14.37			97.30	3.33	6.35

SUB-AREA No. 4

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	2.27											
OUTSIDE CITY	108.88	4.84	3.59	20.79	12.15	12.42	9.29		.58		.74	
TOTAL ACRES	111.15	4.84	3.59	20.79	12.15	12.42	9.29		.58		.75	59.57

SUB-AREA No. 5

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	16.13	.12	.55	2.24	2.38	68.62			27.25			
OUTSIDE CITY	10.19	.18		14.96	3.51		.33					
TOTAL ACRES	26.32	.30	.55	17.20	5.89	68.82	.33		27.25			151.67

SUB-AREA No. 6

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	8.38	.64		11.24	1.03	23.48	12.22		.83	28.88	3.00	
OUTSIDE CITY	62.36	1.44	1.63	3.37	7.95	14.62	.29		.77			
TOTAL ACRES	70.74	2.08	1.63	14.61	8.98	38.10	12.51		1.60	28.88	3.00	46.66

SUB-AREA No. 7

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	89.87	1.98	4.17		7.31	59.00	13.87	10.79	27.00	7.48	.76	
OUTSIDE CITY	6.21		.34		1.53				.32			
TOTAL ACRES	96.08	1.98	4.51		8.84	59.00	13.87	10.79	27.32	7.48	.76	123.45

SUB-AREA No. 8

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	199.36	4.30	.56			.34			25.78	199.51	163.43	
OUTSIDE CITY	21.21	.23	.59									
TOTAL ACRES	220.24	4.53	1.15			.34			25.78	199.51	163.43	99.75

SUB-AREA No. 9

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY												
OUTSIDE CITY	17.07		1.36									
TOTAL ACRES	17.07		1.36									16.03

SUB-AREA No. 10

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	199.78	3.42	.16		11.85	9.54			21.87		10.29	
OUTSIDE CITY	6.90											
TOTAL ACRES	206.68	3.42	.16		11.85	9.54			21.87		10.29	93.39

SUB-AREA No. 11

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	98.09	2.72			9.86	21.31			19.50	79.14	10.34	
OUTSIDE CITY	1.04											
TOTAL ACRES	99.13	2.72			9.86	21.31			19.50	79.14	10.34	95.56

SUB-AREA No. 12

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	62.68	2.11		.62	7.08	33.95	16.13	31.74	2.38	.35	8.51	
OUTSIDE CITY								64.18				
TOTAL ACRES	62.68	2.11		.62	7.08	33.95	16.13	95.92	2.38	.35	8.51	78.07

SUB-AREA No. 13

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	96.72	4.49	.24		5.29	48.11	23.84		2.75	9.67	5.10	
OUTSIDE CITY	.66					1.54						
TOTAL ACRES	97.38	4.49	.24		5.29	49.14	25.38		2.75	9.67	5.10	154.74

SUB-AREA No. 14

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY												
OUTSIDE CITY	21.54		.95							70.07		
TOTAL ACRES	21.54		.95							70.07		27.24

SUB-AREA No. 15

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY												
OUTSIDE CITY	7.89					.62			.69			
TOTAL ACRES	7.89					.62			.69			20.99

SUB-AREA No. 16

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	129.45	1.82			6.27	7.87			9.33		9.33	
OUTSIDE CITY												
TOTAL ACRES	129.45	1.82			6.27	7.87			9.33		9.33	93.98

SUB-AREA No. 17

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY	60.87	.84	1.13		7.45	12.34	9.12	2.84	.59	22.53	2.84	
OUTSIDE CITY	7.04		6.18									
TOTAL ACRES	67.91	.84	7.31		7.45	12.34	9.12	2.84	.59	22.53	2.84	64.05

SUB-AREA No. 18

	SINGLE FAMILY RESIDENTIAL	DUPLEXES	MOBILE HOMES	MOBILE HOME PARKS	MULTI-FAMILY RESIDENITLA	COMMERCIAL	LIGHT & MEDIUM INUDSTRIAL	HEAVY INDUSTRIAL	SEMI-PUBLIC	PUBLIC	GOVERNMENTAL	STREETS AND ROADS
INSIDE CITY												
OUTSIDE CITY	11.23	.48	.88		.59	7.00	51.52	19.05	1.04			
TOTAL ACRES	11.23	.48	.88		.59	7.00	51.52	19.05	1.04			42.28

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